

Some parts of this thesis may have been removed for copyright restrictions.

If you have discovered material in AURA which is unlawful e.g. breaches copyright, (either yours or that of a third party) or any other law, including but not limited to those relating to patent, trademark, confidentiality, data protection, obscenity, defamation, libel, then please read our [Takedown Policy](#) and [contact the service](#) immediately

**Internet Financial Reporting in Saudi Arabia;
Users' Perceptions and Disclosures**

KHALID ABDUALLAH AL-MOTRAFI

**A Doctoral Thesis Submitted in Partial Fulfilment of the
Requirement for the Award of Doctoral of Philosophy**

**ASTON UNIVERSITY
June 2008**

"This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with its author and that no quotation from the thesis and no information derived from it may be published without proper acknowledgment."

BEST COPY

AVAILABLE

Variable print quality

Page removed for copyright restrictions.

Abstract:

The advent of the World Wide Web has provided a new avenue for companies to communicate with current and potential investors. This thesis investigates corporate financial disclosure practices on Web site and their impact. This is done, first by examining the views of various Saudi user groups (institutional investors, financial analysts and private investors) on the disclosure of financial reporting on the Internet and assessing the differences, if any, in the perceptions of the groups. Over 303 individuals from three groups responded to a questionnaire, representing an overall response rate of 48%. Views were elicited regarding: users' attitude to the Internet infrastructure in Saudi Arabia, users' information sources about companies in Saudi Arabia, respondents' perception about the advantages and disadvantages of Internet financial reporting (IFR), respondents' attitude to the quality of IFR provided by Saudi public companies and the impact of IFR on users' information needs. Overall, it was found that professional groups (Institutional investors, financial analysts) hold similar views in relation to many issues, while the opinions of private investors differ considerably.

Second, the thesis examines the use of the Internet for the disclosure of financial and investor-related information by Saudi public companies (113 companies) and look to identify reasons for the differences in the online disclosure practices of companies by testing the association between eight firm-specific factors and the level of online disclosure. The financial disclosure index (167 items) is used to measure public company disclosure in Saudi Arabia. The descriptive part of the study reveals that 95 (84%) of the Saudi public companies in the sample had a website and 51 (45 %) of the companies had a financial information section of some description. Furthermore, none of the sample companies provided 100% of the 167 index items applicable to the company. The thesis also reveals both strengths and weaknesses in the internet reporting of Saudi public companies. The results of multivariate analysis show that firm size and stock market listing are significant explanatory variables for the amount of information disclosed on corporate Web sites. Moreover, the thesis finds a significant and negative relationship between the proportion of institutional ownership of a company's shares and the level of IFR. Profitability, type of industry, type of auditor, level of government ownership, individual ownership, free float, and board structure appear to be insignificant predictors for the Internet financial reporting practices of the sample companies.

Keywords: Internet; Internet Financial Reporting (IFR); Voluntary disclosure; Corporate Web Sites; Views of user on disclosure of financial reporting; Saudi Arabia.

In memory of my beloved father

(May Allah's mercy be upon him),

who, so sadly,

Did not live to see the end of my long journey to England.

This thesis is dedicated to him, whose untimely demise left me with a void in my life. He taught me the importance of hard work and humility, which have helped me tremendously in completing this thesis. I am very grateful to him. His kind hearted led me to be steadfast and never bend before difficulties. He always let me know that he was proud of me, which has motivated me to work harder and do my best.

This thesis is also dedicated to all those who believe in the richness of learning.

Acknowledgement:

Working as a Ph.D. student at Aston University was a magnificent but also a challenging experience to me. This thesis is the result of four years of work, in which I have been accompanied and supported by many people. It is pleasant that I now have an opportunity to express my gratitude to all of them.

First of all, my deep thanks to **Almighty Allah** for enabling me to complete this project. This piece of work could not have been completed without first the help of the **Almighty Allah** (SWA). Second, I want to thank my direct supervisor Dr Omneya Abdelsalam. Her intense enthusiasm and integral view on research, and her mission to provide 'only high-quality work and not less', have made a deep impression on me. I owe her lots of gratitude for having shown me this way of research. Besides being an excellent supervisor, Omneya was as close as a relative and a good friend to me. I am really glad that I have come to know Dr Omneya Abdelsalam.

My special thanks to Dr Stuart Cooper, to whom I owe a special dept of gratitude. I am extremely grateful to have had the opportunity to work with him, learn and benefit from his knowledge, experience, encouragement, kindness, and continuous support. He allocated a significant amount of his time to supervise this research project and provide vital inputs into this thesis. I would also like to convey my deep regards to Professor Patricia Chelley-Steeley for giving some of her precious time to supervise this research and provide her valuable suggestions. I wish also to extend my warmest thanks to all those of Aston University who have helped me with my work. *Thanks also to all my colleagues at Aston Business School for providing a good working atmosphere.*

My deep appreciation and thanks go to my parents; they form the backbone and origin of my happiness. Their love and support without any complaint or regret have enabled me to complete this Ph.D. project. I am also grateful to my brother Talal and my four sisters, for teaching me meaning and the value of brotherhood. I am glad to be one of them. I owe my loving thanks to my devoted wife Amal and my children Abdullah, Salma, Al-bra, Umar, and Jomana. They have lost a lot due to my research abroad. Without their encouragement and understanding it would have been impossible for me to finish this work. No words can express my thanks to all of them. The time has now come for all of them to share with me the happiness of finishing this study.

Last but not least, I'd like to convey my heartfelt thanks to my home university, Umm Al-Qura University, for providing the financial support and offering me an ideal environment in which I felt free and could concentrate on my research. There are many friends, both in Saudi and in Birmingham, who offered me so much kind help. I give my sincere thanks to all these people. I am also very deeply thankful to

the large Saudi community in Birmingham. Their social activities made my stay enjoyable in this city.

Finally, I would like to express my appreciation to all those who participated in evaluating, pre-testing, and piloting the questionnaires; all companies and persons who have offered me their time when I collected necessary data for my research; and indeed all who assisted and participated in my research in whatever capacity.

TABLE OF CONTENTS

ABSTRACT	I
DEDICATION	II
ACKNOWLEDGEMENT	III
TABLE OF CONTENTS	V
LIST OF TABLES	XI
LIST OF ABBREVIATIONS	V
 Chapter 1: Introduction	 1
1.1 Introduction	1
1.2 The Accounting System in Saudi Arabia	2
1.2.1 <i>The Objective of Financial Accounting</i>	4
1.2.2 <i>The General Presentation and Disclosure Standard</i>	4
1.2.3 <i>Saudi Organisation for Certified Public Accountants (SOCPA)</i>	6
1.3 Justification for the research	6
1.4 The structure of the thesis.	7
 Chapter 2: Internet and Financial Environment in the KSA	 9
2.1 Introduction	9
2.2 The Saudi Financial system	9
2.3 The Saudi Stock Market	11
2.4 Internet background	13
2.4.1 <i>Internet History in the Kingdom of Saudi Arabia</i>	14
2.4.2 <i>Internet growth and its statistics</i>	15
2.4.3 <i>Internet access cost in Saudi Arabia</i>	17
2.4.4 <i>Internet Filtering</i>	18
2.4.5 <i>The Internet and the Arabic Language</i>	19
2.5 Conclusion	20
 Chapter 3: Users' Information Sources and Needs	 21
3.1 Introduction	21
3.2 Users' information sources	21
3.3 Users' information need	25
3.4 Conclusion	36
 Chapter 4: IFR Descriptive Literature Review	 37
4.1 Introduction	37
4.2 Current Use of Internet reporting	38
4.2.1 <i>Internet reporting in developed countries</i>	41
4.2.2 <i>Internet reporting in developing countries</i>	46
4.2.3 <i>International studies in Internet reporting</i>	48
4.3 Reason for developing a website	51
4.4 Advantages and disadvantages of Internet reporting	52

4.4.1	<i>Advantage of Internet reporting</i>	53
4.4.1.1	Dynamic update and Interactivity	54
4.4.1.2	Facilitating interaction between companies and stakeholders	54
4.4.1.3	Flexibility of presentation	55
4.4.1.4	Cost	55
4.4.1.5	Widening information provision	56
4.4.1.6	Downloading	57
4.4.1.7	Other languages	57
4.4.2	<i>Disadvantages of Internet financial reporting</i>	58
4.4.2.1	Boundary problem	58
4.4.2.2	Information overload	60
4.4.2.3	Data Reliability, Integrity, and Confidentiality	60
4.4.2.4	Access problems	62
4.4.2.5	Regulations	63
4.5	<i>Types of Internet reporting</i>	65
4.5.1	<i>Continuous reporting</i>	65
4.5.2	<i>Corporate dialogue</i>	66
4.5.3	<i>Checklist model</i>	66
4.5.4	<i>Layers (colourized) model</i>	66
4.5.5	<i>Access to raw data</i>	67
4.5.6	<i>Mass customization around a standard report</i>	67
4.6	<i>Alternative reporting model suggested by major accounting organisations</i>	68
4.6.1	<i>FASB (FAUXCOM Inc.) MODEL (USA)</i>	68
4.6.2	<i>The 21st century annual report (U.K.)</i>	68
4.7	<i>Conclusion</i>	69

Chapter 5: IFR and Factors Influencing Disclosures 70

5.1	Introduction	70
5.2	IFR content	72
5.2.1	<i>General content</i>	72
5.2.2	<i>Credibility Content</i>	79
5.2.3	<i>Usability content</i>	97
5.3	<i>Factors affecting adaptation & content of Internet reporting</i>	107
5.3.1	<i>The Effect of Company Size</i>	107
5.3.2	<i>The Effect of Company Performance</i>	112
5.3.3	<i>The Effect of the Industrial Sector</i>	115
5.3.4	<i>Stock Market Listing</i>	120
5.3.5	<i>The Effect of the Type of Auditor</i>	122
5.3.6	<i>The Effect of Ownership Structure</i>	124
5.3.7	<i>The Effect of Board Structure</i>	130
5.4	<i>Conclusion</i>	137

Chapter 6: Theoretical Development	138
6.1 Introduction	138
6.2 Theory related to questionnaire	138
6.2.1 <i>Technology Acceptance Model (TAM)</i>	138
6.2.2 <i>Innovation diffusion theory (IDT)</i>	141
6.2.3 <i>Relation between the two theories and the present research</i>	143
6.3 Theory related to companies' characteristics affecting the website content	145
6.3.1 <i>Corporate Governance</i>	145
6.3.1.1 Ownership structure and voluntary disclosures	146
6.3.1.2 Board structure and voluntary disclosures	149
6.3.2 <i>Agency theory</i>	154
6.3.3 <i>Signalling theory</i>	156
6.3.4 <i>Legitimacy theory</i>	158
6.3.5 <i>Innovation theory</i>	159
6.4 Conclusion	160
 Chapter 7: Research Methodology	 161
7.1 Introduction	161
7.2 Study Objectives	162
7.2.1 <i>Objective of the first aim</i>	162
7.2.1.1 Justifications of the first aim	164
7.2.2 <i>Objectives of the Second aim</i>	164
7.2.2.1 Justifications of the second aim	165
7.3 Research Questions	166
7.3.1 <i>First aim questions</i>	166
7.3.2 <i>Second aim questions</i>	166
7.4 Research Tools	167
7.4.1 <i>Step one: the questionnaire survey</i>	167
7.4.1.1 Questionnaire Definition	167
7.4.1.2 Advantages of Questionnaire surveys	168
7.4.1.3 Disadvantages of Questionnaire surveys	169
7.4.1.4 Questionnaire Design	171
7.4.1.5 Content and structure of questions	171
7.4.1.6 Question wording	172
7.4.1.7 The question design & designing the questionnaire used in study	173
7.4.1.8 Questionnaire rationale	174
7.4.1.9 Primary Data Sampling Decisions	177
7.4.1.9.1 <i>Population</i>	179
7.4.1.9.2 <i>Subject Groups (questionnaire survey)</i>	179
7.4.1.9.3 <i>Sample Frame and Size (questionnaire survey)</i>	181
7.4.1.10 Pilot Study Testing	182
7.4.1.11 Reliability and Validity Test	184
7.4.1.11.1 <i>Reliability Test</i>	184
7.4.1.11.2 <i>Validity Test</i>	186
7.4.1.12 The Main research: Administration of the Primary Data (questionnaires)	188

7.4.1.13	Analysis of Data from the questionnaire survey	190
6.4.1.13.1	<i>Statistical analyses employed in the questionnaire survey</i>	191
6.4.1.13.1.1	Univariate analysis	191
6.4.1.13.1.2	Bivariate and multivariate analysis	192
7.4.2	<i>Stage two the index of disclosure</i>	194
7.4.2.1	Method of collecting the data (the disclosure index)	194
7.4.2.1.1	<i>First step (the list of Attributes)</i>	194
7.4.2.1.2	<i>Second step (Scoring of the Disclosure Index)</i>	196
7.4.2.2	Method of collecting the data (independent variables)	199
7.4.2.2.1	<i>Firm size</i>	200
7.4.2.2.2	<i>Profitability</i>	204
7.4.2.2.3	<i>Industry Classification</i>	207
7.4.2.2.4	<i>Stock Market Listing</i>	209
7.4.2.2.5	<i>Type of Auditing Firm</i>	212
7.4.2.2.6	<i>Ownership Structure</i>	213
7.4.2.2.7	<i>Board Structure</i>	219
7.4.2.3	Secondary Data Sampling	224
7.4.2.4	Pilot Study of the Secondary Data	225
7.4.2.5	Statistical tests of the Secondary Data	226
7.5	Ethical Implication	227
7.6	Conclusion	228

Chapter 8: Questionnaire Analysis **229**

8.1	Introduction	229
8.2	Descriptive analysis	230
8.2.1	<i>Respondent location</i>	230
8.2.2	<i>Education level and major degree</i>	231
8.2.3	<i>Respondents' age</i>	233
8.2.4	<i>Respondents' investment activities</i>	233
8.2.5	<i>Internet experience</i>	235
8.2.6	<i>Place of Internet access</i>	236
8.2.7	<i>Respondents' Internet skills</i>	236
8.2.8	<i>Internet usage per week</i>	237
8.2.9	<i>Types of information sought</i>	238
8.2.10	<i>Online financial sources and which parts of websites are most attractive</i>	239
8.3	Explanatory analysis	241
8.3.1	<i>Users' attitudes to the Internet infrastructure in Saudi Arabia</i>	241
8.3.2	<i>Users' information sources about companies in Saudi Arabia</i>	245
8.3.3	<i>Respondents' perception of the advantages of Internet financial reporting</i>	254
8.3.4	<i>Respondents' perceptions of the disadvantages of Internet financial reporting</i>	262
8.3.5	<i>Respondents' perception of the quality of IFR provided by public Companies</i>	268
8.3.6	<i>Respondents' needs: IFR impact on users' information needs</i>	273
8-4	Conclusion	288

Chapter 9: Disclosure Index Analysis		291
9-1	Introduction	291
9.2	Descriptive Statistics for Dependant Variables	292
9.3	Frequency Distribution for the companies which have websites	295
9.4	Frequency distributions for the companies' disclosure of financial information on their websites	299
9-5	Frequency distributions of the disclosure index	302
9-5-1	<i>General content items</i>	305
9-5-1-1	General content items disclosed, based on the users' needs in the total sample	305
9.5.1.1.1	<i>Financial information items</i>	306
9.5.1.1.2	<i>Shareholders and related information</i>	307
9-5-1-2	General content items disclosed based on users' needs in the applicable companies:	314
9-5-2	<i>Credibility Information</i>	316
9-5-2-1	Credibility items disclosed among all the companies, based on users' need:	316
9.5.2.1.1	<i>Audited and audit related information</i>	317
9.5.2.1.2	<i>Corporate governance information</i>	322
9.5.2.1.3	<i>Timely information</i>	328
9-5-2-2	Credibility items disclosed based on users' needs in applicable Co.	333
9-5-3	<i>Usability Information</i>	335
9-5-3-1	Usability Information disclosed according to users' needs, based on the total sample	335
9.5.3.1.1	<i>General usability items</i>	336
9.5.3.1.2	<i>Visibility items</i>	344
9.5.3.1.3	<i>Presentation items</i>	348
9-5-2-2	Usability items disclosed based on users' need in the applicable companies	354
9-6	Conclusion	356

Chapter 10: Factors which might explain the variations in IFR level of disclosure		357
10-1	Introduction	357
10-2	Descriptive and univariate analysis for IFR level variation	359
10-2-1	The continuous independent variables	359
10-2-2	The categorical independent variables	363
10-2-2-1	Industry type to which a company belongs	363
10-2-2-2	Stock market listing status of the company	365
10-2-2-3	Type of the auditing firm	366
10-2-2-4	The status of the of government ownership	366
10-2-2-5	The status of the institutional ownership	367
10-2-2-6	The status of diffused ownership	368
10-2-2-7	Dual role type	369
10-3	Multivariate models	371
10-4	Discussions of the results	380
10-4-1	Firm Size	380
10-4-2	Firm Profitability	381
10-4-3	Industry Classification	382

10-4-4	Stock Market Listing Status	383
10-4-5	Type of Auditing Firm	385
10-4-6	Government Ownership	386
10-4-7	Institutional Ownership	387
10-4-8	The Status of Diffused Ownership	388
10-4-9	Role Duality	389
10-4-10	Board Size	390
10-5	Conclusion	391

Chapter 11: Summary and Conclusions 392

11.1	Introduction	392
11.2	Overview	393
11.3	Limitations of the study	408
11.4	Suggestions for future research	410
11.5	The future implications of the IFR	411

413

List of References

Appendices

Appendix 1,2&3 Questionnaire English Version
Appendix 4 Questionnaire Arabic Version
Appendix 5 Disclosure Index
Appendix 6 A List of All Companies Included in the Survey
Appendix 7 General Content Items
Appendix 8 Credibility Items
Appendix 9 Usability Items
Appendix10 Regression Model 2 and 3 Results

LIST OF TABLES

Table 2.1:	Summary of Saudi Equity Market Statistics	13
Table 2.2:	Internet History in Gulf Countries	14
Table 2.3:	World Internet Use and Population Statistics	15
Table 2.4:	Gulf Cooperation Council Country Internet Usage and Population Statistics	16
Table 2.5:	Internet Users in Saudi Arabia	16
Table 2.6:	Internet Access Cost (dialup) in Saudi Arabia	17
Table 2.7:	Comparison Internet Access in Some Selected Arabic Countries	18
Table 2.8:	Filtering Effect on Internet Access	19
Table 2.9:	Number of Online People in Main Language	20
Table 4.1:	Previous Studies Examined the Status of Financial Reporting	39
Table 5.1:	Reasons to Return to a Website	97
Table 5.2:	Reasons Make users Never Return to a Website	98
Table 7.1:	Pilot Study Response Rate	183
Table 7.2:	The Results of the Cronbach's Alpha Testing for the Questionnaire	186
Table 7.3:	Summarises the Distribution and Collection of the Questionnaires	189
Table 7.4:	Explanations of Dependent and Independent Variables	198
Table 7.5:	Comparing Independent Variables in this Study and Some Major Studies	198
Table 7.6:	Previous Studies Examined the Effect of Company Size	203
Table 7.7:	Previous Studies Examined the Effect of Company Performance	206
Table 7.8:	Previous Studies Examined the Effect of Industrial Sector	208
Table 7.9:	Previous Studies Examined the Effect of Stock Market Listing	211
Table 7.10:	Previous Studies Examined The Effect of Auditor Type	211
Table 7.11:	Previous Studies Examined the Effect of Ownership Structure (Free Float)	218
Table 7.12:	Previous Studies Examined the Effect of Ownership Structure	218
Table 7.13:	Previous Studies Examined the Effect of Board Structure	223
Table 7.14:	The final sample included in the survey classified by Industry	224
Table 8.1:	Respondents' Location	230
Table 8.2:	Respondents' Level of Education	232
Table 8.3:	Respondents' Major Degrees	232
Table 8.4:	Respondents' Age	233
Table 8.5:	Sectors for Investment	234
Table 8.6:	Respondents' Preference for Local or Foreign Investment	234
Table 8.7:	Respondents' Internet Use	235
Table 8.8:	Internet Access	236

Table 8.9:	Respondents' Internet Skills	236
Table 8.10:	Respondents' Internet Use	237
Table 8.11:	Respondents' Target Types of Information	238
Table 8.12:	Internet Financial Reporting (IFR) sources	240
Table 8.13:	Most Interesting Parts of a Company's Website	240
Table 8.14:	Users' Satisfaction With the Internet	243
Table 8.15:	Ranking by mean value of Users' satisfaction with the Internet	244
Table 8.16:	Users' Rating of the Importance of Different Information Sources	251
Table 8.17:	Users' Ranking of the Importance of Different Information Sources	252
Table 8.18:	A comparison of the Results of this Study with Previous Studies	253
Table 8.19:	Users' Perception of the Advantages of IFR	259
Table 8.20:	Ranking by Mean Value of the Users' Perceptions of the Advantages of IFR	261
Table 8.21:	Users' Perceptions of the Disadvantages of IFR	266
Table 8.22:	Ranking the Disadvantages of IFR	267
Table 8.23:	Users' Perceptions of the Quality of IFR	271
Table 8.24:	Ranking of users' Perceptions of the Quality of IFR	272
Table 8.25:	General Content Items	277
Table 8.26:	Ranking of Users' General Content Items by level of need	277
Table 8.27:	Credibility Items	281
Table 8.28:	Rank Users' Credibility Items Need	281
Table 8.29:	Usability Items	286
Table 8.30:	Users' Usability Items Need	287
Table 9.1:	Descriptive Statistics for all Saudi Public Companies (Categorical Variables)	293
Table 9.2:	Descriptive Statistics for all Saudi Public Companies (Categorical & Continuous Variables)	294
Table 9.3:	Distribution of website Using Companies by Industry	297
Panel A	Classification	
Panel B	Distribution of Website Using Companies by Stock Market and Auditor	298
Table: 9.4	Distribution of Financial Information Availability Using	300
Panel A	Companies by Industrial Classification Panel A	
Panel B	Distribution of Financial Information Availability Using Companies by Stock Market and Auditor Panel B	301
Table 9.5:	IFR Comprehensiveness Index Descriptive Statistics (Dependent Variables)	304
Table 9.6.a:	General Content Items	312
Table 9.7.a.1	Credibility Items (Audited and audit related information)	321
Table 9.7.a.2	Credibility Items (Corporate governance information).....	326
Table 9.7.a.3	Credibility Items (Timely information).....	332
Table 9.8.a.1	Usability Items (General usability items).....	342

Table 9.8.a.2	Usability Items (Visibility Items).....	346
Table 9.8.a.3	Usability Items (Presentation Items).....	352
Table 10.1:	Pearson Correlations for Dependent and Continuous Independent Variables.....	362
Table 10.2:	The level of Significant for the Differences Between the Industry Sectors Regarding their Level of IFR Disclosure.....	364
Table 10.3:	A comparison Between IFR Disclosure Levels and Some Saudi Company's Characteristics.....	370
Table 10.4	The Results of Multiple Regression Model Where the Overall Index of Disclosure is the Dependent variable.....	373
Table 10.5:	The Results of Multiple Regression Model Where the General Content Index of Disclosure is a Dependent variable.....	375
Table 10.6:	Results of Multiple Regression Model Where the Credibility Index of Disclosure is a Dependent Variable.....	377
Table 10.7:	Results of Multiple Regression Model Where the Usability Index of Disclosure is a Dependent Variable.....	379

LIST OF FIGURES

Figure 6.1: Technology Acceptance Model (TAM).....	139
Figure 6.2: Innovation Decision Process.....	142
Figure 6.3: The relationship between Perceived Attributes Of Innovation and Rate of Adoption of Innovation.....	143
Figure 6.4: Basis of the Questionnaire Model.	144
Figure 7.1: Procedure for Drawing a Sample.	178

LIST OF ABBREVIATION

AGM	Annual General Meeting
AIMR	Association for Investment Management and Research
CEO	Chief Financial Officer
CFA	Chartered Financial Analysts
CMA	Capital Market Authority
CPA	Certified of Public Accountant
EDGAR	Electronic Data Gathering, Analysis, and Retrieval system
ESIS	Electronic Securities and Information System
FAQ	Frequently Asked Questions
FASB	Financial Accounting Standards Board
GA	Government Agencies
GAAP	General Accepted Accounting Principles
GCC	Gulf Cooperation Council
GPDS	General Presentation and Disclosure Standard
HTML	Hypertext Markup Language
IASC	International Accounting Standards Committee
ICAEW	Institute of Chartered Accountants of England and Wales
IDT	Innovation Diffusion Theory
IFAC	International Federation of Accountants
IFR	Internet financial reporting
IP	Internet Protocol
IR	investor information
IRS	Investor Relations Society
IS	Information Systems
IT	Information Technology
KACST	King Abdul Aziz City for Science and Technology
KLSE	Kuala Lumpur Stock Exchange
KSA	Kingdom of Saudi Arabia
NASDAQ	National Association of Securities Dealers Automated Quotations
NCB	National Commercial Bank
NZSE	New Zealand Stock Exchange
PDF	Portable Document Format
PIF	Public Investment Fund
PLC	public limited companies
REDF	Real Estate Development Fund
SAAB	Saudi Arabian Agricultural Bank
SAMA	Saudi Arabian Monetary Agency
SaudiNIC	Saudi Network Information Center
SCB	Saudi Credit Bank
SCITC	Saudi Communications and Information Technology Commission
SEC	Securities and Exchange Commission
SIDF	Saudi Industrial Development Fund
SOC	State-owned Corporations
SOCPA	Saudi Organisation for Certified Public Accountants
SSRC	Saudi Shares Registration Company

TAM	Technology Acceptance Model
TCP	Transmission Control Protocol
TRA	Theory of Reasoned Action
URL	Universal Resource Locator

Chapter 1: Introduction

1.1 Introduction:

In the last decade there have been significant changes in the business environment and in business practices globally and locally. Financial reporting and corporate disclosure are the gatekeepers of our financial market in the context of the dynamic, constantly changing business world. Competitive challenges and business opportunities arise quickly. As a result, corporate disclosure has been evolving gradually to accommodate these changes.

Moreover, observation from previous studies has revealed that **first**, as Elliott (1992) mentions information technology (IT) is changing everything. It is replacing the industrial paradigm and is profoundly changing the way in which business is done. Because of these changes, the decisions which users must make are very different from former decisions. If the objective of accounting information is to support business decision-making, and the types of users' decisions and needs are changing, then it is natural to expect accounting to change both internal and external accounting. **Second**, previous studies reveal also that users of financial information cannot take decisions based on accurate evidence using current methods of financial reporting which are prepared according to General Accepted Accounting Principles (GAAP) (Beattie, 2000). **Third**, users claim that our financial system does not capture and communicate material developments in sufficient time to meet market information needs (Wallman, 1995). Thus, the volatility of today's markets suggests that more frequent reporting of some sort would be valuable; such IT permits (Elliott, 1992). **Fourth**, IT opens the possibility of presenting financial data in different forms. IT makes it possible to disaggregate real time reporting and also provides users with access to companies' raw data (Elliott, 1992; Wallman, 1995).

In addition, the Kingdom of Saudi Arabia (KSA) has witnessed significant developments in all fields, including its business sector. These developments have led to an increased perception of the importance of financial reports and their impact on the national economy as a whole. Hence, important steps have

been taken to promote accountancy.

This introductory chapter presents the rationale and the basis for the present work. The chapter focuses on the following tasks: an overview of the accounting system in Saudi Arabia (section 1.2); justification for the research (section 1.3); and the structure of the thesis (section 1.4).

1.2 The Accounting System in Saudi Arabia:

The following sections aim to describe the characteristics of the accounting environment in the Kingdom of Saudi Arabia, where the study is undertaken. Specifically, the following points are discussed, in relation to the nature of the present study: a brief history of the development of accounting standards, the objective of financial accountants, the general presentation and disclosure standard and the Saudi Organisation for Certified Public Accountants (SOCPA). These are the main topics of the following sections.

In 1965 the first legal framework (Company Act) was set up to regulate the accounting and auditing in the Kingdom. Before this, it was customary to adopt legal frameworks from other Arab countries, Egypt in particular, for the formation, operation and dissolution of firms (Shinawi, 1971). The Act required all limited companies to employ one or more persons who were qualified and licensed to audit in KSA. Moreover, the Act obliged stockholders to appoint an auditor in the first annual meeting and determine his remuneration (Shinawi, 1970 and SOCPA, 2001).

In 1981, some accountants and academics called for a conference on accounting and its practice in the Kingdom. The conference was organised by the King Saud University in Riyadh. The main aims of the conference were: to revise the practice of accounting and auditing in the Kingdom, to identify and evaluate the shortfall in the accounting profession and to offer suggestions to redress the situation and improve practice (SOCPA, 2001).

As a result of this conference, the Ministry of Commerce in Saudi Arabia appointed the Al-Rashed accountants' office to investigate situations where

there were accounting problems, identify the potential areas for development and improvement and provide a set of plans to the Ministry of Commerce. Their plans were arranged in two phases. The first phase was concerned about accounting practice in other countries and adopted appropriate rules based on their experience for the KSA. The second phase dealt with issues of the identification of objectives and determining directions for development and organisation (SOCPA, 2001).

In order to accomplish the first phase, countries with different types of experience and system were selected and arranged according to the similarity or difference of their accounting experiences into three groups; Group One consisted of the USA, the UK and Canada, Group Two consisted of France, W. Germany and Sweden and Group Three consisted of Tunisia, Venezuela and Brazil. One country from each group was chosen for study, the USA, West Germany and Tunisia (SOCPA, 2001).

The scope of **Phase two** was extended to three main areas. The first area was concerned with determining the aim and objectives of financial accounting coupled with defining its most important concepts and the introducing standards of general presentation and disclosure. The second area was to determine auditing standards and the means to develop them. The third area concerned the organisation of the internal structure of the profession (SOCPA, 2001).

Subsequently, in order to achieve the objectives, three task forces were established. Each task force comprised highly qualified Saudi academic experts, advisors and technical and academic experts from the selected countries. Each task force attended to one of the above areas and was required to study it and then draft a proposal for KSA and circulate it for discussion to the members of the other task forces. The final proposal, which was presented to the Ministry of Commerce for approval, came as a result of a number of meetings between the members of the task forces (SOCPA, 2001).

In 1986, the Ministry of Commerce introduced its general presentation and disclosure standard and made it the official guide for all accounting

professionals and practitioners in Saudi Arabia. However, the guide did not become mandatory until 1990, when the Ministry of Commerce insisted that all companies should comply with its standards when submitting their annual reports (SOCPA, 2001).

1.2.1 The Objective of Financial Accounting:

The main objectives of the general purpose of financial accounting (SOCPA, 2002) have been determined as:

1. Presenting appropriate information for the primary user's needs.
2. Serving as a periodic measure of the ability of the business enterprise to generate income.
3. Assisting in evaluating the enterprise's ability to generate cash flow.
4. Presenting information on the economic resources of the enterprise.

And

5. Presenting information on the sources and applications of funds.

1.2.2 The General Presentation and Disclosure Standard:

All enterprises, whatever their legal natures are required to comply with the required standard defined by the General Presentation and Disclosure Standard (GPDS).

General Presentation:

The standard of general presentation and disclosure is the governing standard of the contents and forms required in corporate financial statements and related disclosure in the Kingdom. In producing financial reports, the GPDS requires the following items to be included in the given order: a statement of financial position (balance sheet), statement of income (loss), statement of cash flows, statement of changes in shareholders' equity and notes to the financial statements (SOCPA, 2002).

Disclosure Standard:

The general disclosure (SOCPA, 2002) defines requirements in the financial statement with respect to:

1. The nature of the business: the standard requires the report of a summary of the maturity of a business in the notes of the financial statement.
2. Significant accounting policies: the standard regards an unambiguous and precise account of the significant accounting policies of an enterprise as an integral part of the financial statements.
3. Accounting changes and treatment: whenever there is a change in the policy, the new policy should be applied retroactively by restating the financial statements of all periods preceding the change and presented for comparative purposes.
4. Contingencies: in relation to the issue of contingencies, two conditions have to be fulfilled before the amount of a contingent loss may be charged to income. The first is the likelihood that a future event asserts the impairment of an asset or a liability incurred at the date of presenting the financial statement. The second is that the sum of the loss can be reasonably estimated.
5. Commitments: large or unusual commitments by a company should be disclosed with a detailed description, its terms and conditions and the amount of such commitment.
6. Subsequent events.

1.2.3 Saudi Organisation for Certified Public Accountants (SOCPA):

The establishment of SOCPA was in 1992. The organisation was placed under the supervision of the Ministry of Commerce. Consequently the Ministry of Commerce embarked in a detailed and comprehensive study with the aim of developing the accounting and auditing profession in Saudi Arabia. The main objectives of the organizations are (SOCPA, 2001):

- Reviewing, developing and approving accounting and auditing standards,
- Establishing and maintaining a suitable reviewing programme for ensuring the implementation of professional standards by the Certified of Public Accountant (CPA) and their compliance with the CPA's regulations.
- Laying down the essential rules for the fellowship certificate examination (CPA exam).
- Constructing regular education programmers
- Carrying out specialised research work and studies in accounting, auditing and other related topics.
- Attending national and international committees and symposiums relating to the accounting and auditing profession (SOCPA, 2001).

1.3 Justification for the research:

In general, the research seeks first, to investigate the perceptions of Saudi users on disclosure of financial reporting on the Internet (Internet financial reporting is comprised of a variety of corporate information, financial and non financial); and second, to evaluate the provision of financial information on the websites of Saudi Arabian public companies. A number of arguments justify the importance of this research.

First, it has been increasingly common in recent years for companies in large firms in particular to communicate information to their stakeholders by using the Internet. However, no study has been conducted – to my knowledge – to investigate users' perceptions of Internet financial reporting in Saudi Arabia. Thus, this study will contribute to accounting knowledge in documenting the perceptions of users on the disclosure of financial reporting on the Internet in

Saudi Arabia and then, it is hoped, will obtain the appropriate recommendation to enhance Internet disclosure. Those who regulate and prepare Internet reporting practices will benefit from the fulfillment of these objectives.

Second, great numbers of studies have investigated Internet financial reporting in the developed world, mainly the USA and Europe. However, few studies have investigated this phenomenon in the developing world. Moreover, not much empirical research has measured Internet disclosure in Saudi Arabia and no study has been conducted in Saudi Arabia – to my knowledge – to investigate Internet disclosure. The only exception is the study of Abu Al-Azm (2001), which considered this subject. Thus, the fulfilment of these objectives will enhance our understanding of the Internet reporting environment in KSA. Third, the result of this study will show how closely the demand for and the supply of Internet reporting match in Saudi Arabia.

1.4 The structure of the thesis:

This thesis has ten chapters, including this introduction. The second chapter will give a brief review of the financial system in the KSA and a history of the Saudi Arabian stock market, where the study takes place. It will also give a brief history of the Internet.

The third chapter presents a review of the literature concentrating on the perceptions of different groups of financial information users. Two types of study are reviewed in this chapter. The first is the kind of study which identifies the user's information source while the second is the type which considers only the users' information needs.

Chapter 4 presents a review of the literature about the current state of Internet financial reporting (IFR). The review will include studies which examine the current state of IFR in developed and developing countries and some international studies. The chapter will also include studies to examine the advantages and disadvantages of Internet reporting and some possible types of IFR.

Chapter 5 presents a review of the literature about the content of Internet financial reporting (IFR). This review identifies two stages of Internet financial reporting (IFR) of content (general content and credibility) and usability. The chapter will also include studies which examine the content of Internet financial reporting (IFR) in relation to some companies' characteristics.

Chapter 6 will review some related theories. These comprise the Technology Acceptance Model (TAM), Innovation Diffusion Theory (IDT), Agency Theory, Signalling Theory, Legitimacy Theory and Innovation Theory.

Chapter 7 focuses on the methodology adopted in this research, including the design of the data collection instrument, the construction of the disclosure indexes and the definition and measurement of the study variables.

Chapters 8, 9, and 10 will report the data analyses and results of the research. Chapter 8 will investigate the perceptions of Saudi users on the disclosure financial reporting on the Internet in Saudi Arabia. Chapter 9 will measure the content of Internet financial reporting (IFR). Chapter 10 will examine the association between the level of disclosure and groups of possible explanatory variables.

Chapter 11 will summaries the findings, recommendations, limitations and suggestions for future studies.

Chapter 2: Internet and Financial Environment in the KSA

2.1 Introduction

The Kingdom of Saudi Arabia means different things to different people. For millions of followers of Islam across the world it is the ultimate Holy Land and a site of pilgrimage. For many, Saudi Arabia means oil, the lifeline of present and future economies. On September 23 1932, King Abdulaziz Al-Saud laid the foundation of the modern Kingdom of Saudi Arabia. Large reserves of oil were discovered soon after and within a span of six years, the commercial production of oil began (Ministry of Foreign Affairs, 2007).

The purpose of this chapter is to describe the financial environment in the KSA, in which the study is set. Specifically, the following topics are discussed, in relation to the subject of the present study: its financial system, the history of the Saudi Arabian stock market and that of the Internet. These topics are dealt with in turn, below.

2.2 The Saudi Financial system:

Saudi Arabia has an established financial infrastructure based on financial standards and payment systems equivalent to those in the major industrial countries. The Kingdom's financial system consists of six major components: the Supreme Economic Council, Ministry of Commerce, Ministry of Finance, Central Bank (SAMA, the Saudi Arabian Monetary Agency), the Capital Market Authority (CMA), specialized credit institutions, commercial banks and the Saudi stock market (Abdulaziz, 2000).

First, the Supreme Economic Council, the main duties of the Supreme Economic Council are to develop economic policy and determine appropriate options; monitor the implementation of economic policy and the decisions of the Council of Ministers related to economic issues; and submit a periodic report to the Council of Ministers (Ministry of Finance, 2005). **Second, the Ministry of**

Commerce, established in 1952 with the objectives of monitoring, regulating and supervising all public companies, this ministry promotes the establishment and implementation of a legal and regulatory framework necessary to ensure the efficient and equitable operation of a free market economy (Ministry of Commerce, 2005). **Third, the Ministry of Finance**, this was established as only the second ministry after the Foreign Ministry. The Finance Ministry became responsible for the organization, maintenance and collection of the government's finances, as well as for initiating budgeting methods. The main duties of the Finance Ministry are: to prepare the Kingdom's general budget, maintain the records of all current accounts between the Ministry and other government agencies and supervise and maintain government properties (Ministry of Finance, 2005). **Fourth, the Saudi Arabian Money agency (SAMA)**, this was established in 1952 with the purposes of issuing the Saudi currency and stabilising its internal and external value, acting as a blanket to the government, and the regulation and supervision of commercial banks and money-changers (SAMA, 2005). **Fifth, the Capital Market Authority (CMA)**, this was set up on 16th June, 2003. The CMA's functions are to regulate and develop the Saudi Arabian capital market. It issues the required rules and regulations for implementing the provisions of the Capital Market Law, aimed at creating an appropriate investment environment. It monitors and regulates the full disclosure of information related to securities and their issuers (CMA, 2006).

The Kingdom has five specialized lending institution. The primary objective of these institutions is to provide long-term loans at relatively low cost, interest-free, except for an administrative cost of 2.5% of the value of loan, with complete government financing for vital sectors of the economy such as industry, agriculture and real estate, in addition to supporting the professions and small businesses. These institutions were established as a funding agency affiliated to the Ministry of Finance (Ministry of Finance, 2005). There follows a brief description of each fund: 1) **The Saudi Arabian Agricultural Bank (SAAB)** was established in 1962 to provide finance for various agricultural activities in all

regions of the Kingdom; 2) *The Saudi Credit Bank (SCB)* was established in 1971 to extend interest-free loans to Saudi citizens with limited financial resources, to help them overcome their financial difficulties; 3) *The Saudi Industrial Development Fund (SIDF)* was established in 1974 as a funding agency to grant medium and long-term soft loans for private industrial projects to help enlarge the industrial base of the Kingdom; 4) *The Real Estate Development Fund (REDF)* was established in 1974. The primary objective of the REDF is to provide loans to citizens to help them construct their own homes and for investment purposes; 5) *The Public Investment Fund (PIF)* was established in 1971. The motive in establishing the PIF was to provide financing for certain productive projects of a commercial nature, which are important to developing the national economy and which the private sector lacks the ability to undertake alone, either because of insufficient experience or inadequate capital or both (Ministry of Finance, 2005).

The development of commercial banking in Saudi Arabia goes back to 1927, with the opening of the first branch of the Netherlands Trading Society in Makkah, to serve Indonesian pilgrims. In 1951, the first Saudi bank, named the National Commercial Bank (NCB) was established in Jeddah. Since then, the commercial banking system has increased substantially in both branch numbers and banking services. There are currently 11 commercial banks in the kingdom (SAMA, 2005).

2.3 The Saudi Stock Market:

Saudi joint stock companies had their beginnings in the mid-1930s, when the first such company, the Arab Automobile Company, was established. The rapid economic expansion and Saudisation of foreign banks in the 1970s led to the establishment of a number of large corporations and joint venture banks (TADAWUL-a, 2005). Major share offerings were made to the public during this period. Before December 1984, the stock market in Saudi Arabia was completely unregulated (TADAWUL-a, 2005). Unlicensed stockbrokers built the market by processing buy-and-sell orders for investors. The stock market was characterized

by an informal system of share trading (TADAWUL-a, 2005). In the absence of a specific mechanism to protect the interests of investors, the stock market failed to instil public confidence in its activities. Realizing the need to regulate stock-market operations in the country, the government took the first step in December 1984 (TADAWUL-a, 2005).

In 1984, a Ministerial Committee comprising the Ministry of Finance, Ministry of Commerce and SAMA was formed to regulate the market (TADAWUL-a, 2005). Under the regulations, trading activities in the stock market were brought under the control of a newly formed share control division established within the Banking Control Department of SAMA. Stockbrokers were eliminated and so also was forward trading and the 11 commercial banks in the Kingdom were made responsible for the settlement of buy-and-sell orders against a maximum commission of 1% for their services (TADAWUL-a, 2005).

In 1985, the government took another major step by establishing the Saudi Shares Registration Co. (SSRC), limiting its shareholding to banks in the KSA (TADAWUL-a, 2005). In 1990, another major development in the stock market was made by establishing the Electronic Securities and Information System (ESIS) whereby all the buy-and-sell orders placed at individual banks were transferred from their computers to a central system at SAMA for matching on an equitable basis (TADAWUL-a, 2005). Lastly, TADAWUL, an automated trading system, was launched to enable people to trade through the Internet. By virtue of its ease, transparency and speed in processing transactions, the system fostered market liquidity and increased the volume of trade (TADAWUL-b, 2005). Today, the Saudi stock market is the largest in the region and the eleventh largest in the world (see Table 2-1). In addition, participation in the market is restricted to Saudi citizens (2-4-2006), Saudi corporations, citizens of GCC countries and anyone working in Saudi Arabia (TADAWUL-b, 2005).

**Table 2.1: Summary of Saudi Equity Market Statistics
11 Years**



Source: Saudi Stock Market, 2006

2.4 Internet background:

The Internet and the most known part of it, the World Wide Web, are one of the greatest inventions of our time. The formation and growth of these big networks has changed the way in which we do business, communicate, entertain, retrieve information and even educate ourselves. This worldwide communication allows interaction with people without regard for geographic location and it is a superb medium of exchange. The following sections will first briefly define the Internet provide a short history of the Internet specifically in Saudi Arabia, with its growth, its costs and a brief background to do with Internet filtering in Saudi Arabia. The last section, after a short introduction, discusses the Internet and the Arabic language.

There are varying definitions of the Internet. One of the more technical definitions is provided by the Internet Society:

The Internet is a network of networks; it links computers to other computers sharing the TCP/IP protocols (Transmission Control Protocol/Internet Protocol). Each runs software to provide or "serve" information and/or to access and view information. The Internet is the transport vehicle for the information stored in files or documents on another computer. It can be compared to an international communications utility servicing computers. It is sometimes compared to a giant international plumbing system. The Internet itself does not contain information. It is a slight misstatement to say a "document was found on the Internet." It would be more correct to say it was found through or using the Internet. What it was found in (or on) is one of the computers connected to the Internet (Hwang, 2000: 10).

2.4.1 Internet History in the Kingdom of Saudi Arabia:

Until 1998, the limited number of Internet users in KSA had to dial to other countries (mainly Bahrain) to get connected to the Internet and paid expensive international calling charges (Abu-Fatim, 1998). However, since January 1999, Internet service has been available in Saudi Arabia through domestic servers. The Council of Ministers approved a resolution giving the coordination, introduction and management of initial Internet services to King Abdul Aziz City for Science and Technology (KACST) in 1997 (Al-Zoman, 2001). In 2003 the Saudi Communications and Information Technology Commission (SCITC) took over all regulatory control of Internet services in the Kingdom (Al-Zoman, 2001; Al-Furaih, 2003).

Table 2.2: Internet History in Gulf countries



Source: Internet Service Unit, 2004

2.4.2 Internet growth and its statistics:

In the last decade, the Internet in general and the web specifically have grown to become one of the largest communication media in the history of humankind (NUA, 2004). The rapid adoption of Internet connections all over the world is still significant making it very difficult to determine how many users are registered on the net, apart from guesses and estimates (NUA, 2004). There are many companies which carry out surveys to estimate the number of users, but we can consider the numbers presented in these surveys only to be fairly good estimates of the minimum size of the Internet (NUA, 2004). According to the Internet Software Consortium (ISC, 2004), the number of people is constantly increasing. In 1995 the Internet population was below 30 million people (app. 0.35% of the world's population) while in May 2002 there were more than 500 million people online (8.9% of the world's population) (NUA, 2004). The number had increased again in 2005, when there were over 800 million (International Telecommunications Union, 2006).

Table 2.3: World Internet Use and Population Statistics



NOTES: Internet Usage and Population Statistics were updated on December 3, 2004.
Source: International Telecommunications Union 2004.

However, Saudi Arabia has been slow to embrace the Internet when compared to the rest of the Gulf Cooperation Council (GCC) (Table 2.4). The number of Internet users in Saudi Arabia reached 1.6 million in 2004, according to a study released by the Madar Research Group, 2005. Nevertheless, the kingdom now has the single largest Internet community in the Arab world, Internet penetration standing at a mere 7.2 percent – of the kingdom's population of 22.5 million – still over four percentage points above the pan-Arab average, but more than 5.5 percentage points below the world average. In terms of Internet penetration, Saudi Arabia now ranks in fifth place among GCC countries and sixth among all Arab countries (Internet world state, 2004)

Table 2.4: Gulf Cooperation Country Internet Usage and Population Statistics



NOTES: (1) Internet Usage and Population Statistics were updated on December, 2004.
Source: Internet world state, 2004

Table 2.5: Internet Users in Saudi Arabia



Source: Internet service unit, 2004a

2.4.3 Internet access cost in Saudi Arabia:

The price of Internet service obviously affects its use. There are a number of ways of pricing Internet access. In most instances, the price consists of an ISP charge plus local telephone charges. A number of countries around the world are trying to promote lower Internet access charges. One option is "free" Internet where there is no ISP charge; users pay only the local telephone usage charge. Another option is to make no local telephone charge but an ISP charge instead.

In the Kingdom of Saudi Arabia there are two types of subscription (Internet service unit, 2004b):

- Volume-base subscription: Here the user pays a monthly subscription which covers some free hours and then pays an amount for each extra hour used.
- Open subscription: Here the user pays a fixed amount per month regardless of use.

The following table summarizes the Internet access cost (dial-up) in the Kingdom of Saudi Arabia from 1999 to 2004.

Table 2.6: Internet Access Cost (dialup) in Saudi Arabia

Note: this does not include the cost of the telephone connection which is paid to the STC for each use. Source: Internet service unit, 2004b



Illustration removed for copyright restrictions

If the cost of accessing the Internet in Saudi Arabia is compared with what it costs in Egypt and United Arab Emirates, it is much more expensive. Table 2-7 shows the variation in the cost of services between the UAE, Egypt and Saudi Arabia. For instance, comparing Egypt and Saudi Arabia, Saudi Arabia had the highest prices during the period 1999-2000 (2 BITS, 2001).

Table 2.7: Comparison Internet Access in Some Selected Arabic Countries



Illustration removed for copyright restrictions

Source: 2 BITS (2001)

2.4.4 Internet Filtering:

The Internet by its nature presents an open pool of all kinds of information contributed by many organizations, commercial companies, academic institutions and individuals with no common definition about the acceptability of materials entering the Internet. As a result, there is some debate about whether to regulate the Internet or not. In any case, every country regulates the Internet to some extent, depending on its social and economic orientation. For example, the focus in the USA is commercial; one example is the provisional ruling that music cannot be distributed without charge over the Internet (Open Net Initiative, 2004). The USA has also ruled that ISPs are not liable for access charges to local exchange operators (Open Net Initiative, 2004). In the case of Saudi Arabia, as a conservative society where alcoholic beverages, gambling and drugs are forbidden in obedience to Islamic laws and Saudi culture, the focus is different. Pursuant to the Council of Ministers' decree concerning the regulation of use of the Internet in Saudi Arabia, all sites which contain content in violation of Islamic law or national regulations shall be blocked (Al-Zoman, 2002). A security committee chaired by the Ministry of Interior was formulated for this purpose (Open Net Initiative, 2004; Al-Zoman, 2002).

The difference of speed between filtered and unfiltered web page retrieval reaches on average no more than half a second, which is too miniscule a timeframe for most humans to perceive (Internet Society, 2003). The following table (Table 2.8) shows the time needed to download some of the popular web pages with and without the proxy. In the table the first column represents the time needed to download the page with the proxy, while the second column represents the time needed without the proxy. The time is measured in seconds (Internet Society, 2003).

Table 2.8: Filtering Effect on Internet Access

Time of readings, Tue Dec 16 2003. Source: Internet Society, 2003



Illustration removed for copyright restrictions

2.4.5 The Internet and the Arabic Language:

Arabic is the mother tongue of over 300 million people in 22 Arab countries. While many Arabs use English or French on the Internet as their preferred language, the majority of Arabs use Arabic. The Arab-speaking world is one of the least Internet connected areas, with only around one per cent of people online (IDN Software Developer Consortium, 2004). Language problems caused by the preference for Arabic, or unfamiliarity with other languages, reduces the maximum benefit to be gained from the Internet, especially with regard to websites offered in other languages (IDN Software Developer Consortium, 2004).

Table 2.9 shows estimated figures of the number of people online according to main language (native-speakers). It is classified by languages instead of countries, since people speaking the same language form their own online community (Global Reach, 2004).

Table 2.9: Number of Online People in Main Language on December 14, 2004

Source: (Global Reach, 2004)

2.5. Conclusion:

Chapter 2 provides a brief introduction to the financial infrastructure and Saudi Stock Market. The chapter also defines the Internet and some Internet terminology. An outline history of the Internet and how the Internet was introduced into the Kingdom of Saudi Arabia were discussed. The chapter also provides selected statistics regarding Internet users. Finally, obstacles affecting the use of the Internet were reviewed. The thesis will now examine a specific aspect of users' information sources and information needs in the next chapter.

Chapter 3: Users' Information Sources and Needs

3.1 Introduction:

The last decade has seen major revolutions in the nature of business, motivated by fundamental developments in information technology. This has facilitated the globalization of world capital markets and world trade, which has in turn intensified business competition. In response to these revolutions in the business environment and business practices, companies began to change the types of information generally used internally to manage their business (Beattie, 2000). New performance measures (generally non-financial) were adopted which focused on the process of value creation and the source of competitive advantage (Beattie, 2000). It was also recognized that external reporting had to change if it was to maintain its relevance (Elliott, 1996). Moreover, financial performance measures have been shown to lag behind as indicators of future performance compared to key non-financial indicators (Beattie, 2000). Users are therefore asking for more information of a strategic, forward-looking and non-financial nature (AIMR, 1993). Of particular importance to users' sources of information and users' information needs, many studies around the world have engaged in the debate regarding business reporting (Beattie, 2000).

This chapter provides a review of a sample of previous studies which concentrate on the perception of different groups of financial information users. Two types of study are reviewed in this chapter: first, the kind of study which identifies the user's information source and second, the type of study which considers only the user's information need.

3.2 Users' information sources:

One of the early studies attempting to discover users' information sources was carried out by Baker and Haslem in 1973. They summarized the responses of 851 individual investors residing in metropolitan Washington, D.C., U.S.A. and analysed the responses of 775 individual investors regarding their sources of information about companies. This study reported that most individual investors (47%) rely on stockbrokers as their major source of information about

companies. Financial statements, however, were found to be a source of information for only 8% of individual investors in Baker and Haslem's study (1973).

Lee and Tweedie (1975) conducted an empirical study to determine which sources of information are used widely by individual shareholders of one British company. By analyzing the responses of 374 individual investors, Lee and Tweedie (1975) concluded that most individual shareholders read and rely more on financial press reports than any other source of information about their companies. Lee and Tweedie (1975), however, did not provide information about the perceived importance of annual reports when presented to the respondents together with other possible sources of information about a company. The main objective of Anderson's (1981) study was to measure the importance of annual corporate reports to Australian institutional investors in their decision making process. Anderson (1981) analysed the responses of 188 institutional investors and concluded that Australian institutional investors tend to identify the annual report as the most important source of financial information when making their investment decisions, followed by visits to the companies.

Abdelsalam (1990) carried out a survey of individual investors' use of annual corporate reports in Saudi Arabia. He investigated the responses of 231 individual investors and reported that most Saudi individual investors (68%) consider the annual corporate report to be source of most corporate information. Moreover, 85% of Abdelsalam's sample (1990) indicated that they read annual reports. In the same environment, Ba-owaidan (1994) surveyed individual Saudi investors on various aspects of Saudi annual corporate reports, with a targeted sample of 135 Saudi individual investors. The study documented that more than 65% of the respondents ranked the annual reports as their main source of information about companies, followed by the published daily security price list.

A study of the same target population in a different environment was carried out by Anderson and Epstein in 1995. They examined the views among individual investors of the use of annual corporate reports, analysing the responses of 436 individual shareholders of four large Australian companies. Anderson and Epstein (1995) reported that the annual corporate reports come third, after stockbrokers' advice and that given in financial newspapers and journals, as a basis for investment decisions by individual Australian investors. However the Australian individual investors (72%) think that annual corporate reports are of at least moderate use.

In the UK, Bance et al (1995) conducted an interview study to discover the views of professional users about their information sources. Bance et al's (1995) sample consisted of 21 investment analysts and 12 institutional investors. Bance et al (1995) found that investment analysts rank annual reports fifth after preliminary announcements, personal interviews, interim statements and company presentation, while institutional investors ranked annual reports first, with personal interviews.

Abu-nassar and Rutherford (1996) conducted a survey study to discover the views of external users' use of annual reports in Jordan. Those targeted were: individual shareholders, institutional shareholders, bank loans officers, shareholders and academics. Abu-nassar and Rutherford (1996) analysed the responses of 224 users of annual reports, using univariate analysis in their study. They report that bank loan officers are the heaviest users of annual reports in Jordan, while individual shareholders and academics are the lightest. Moreover, this study found that users' satisfaction with many qualitative characteristics of corporate reports in Jordan is very low. Regarding the relative importance of the various sources of financial information, Abu-nassar and Rutherford (1996) found that the annual corporate report is the most important source of information for all groups of users except bank loan officers, who indicate that the most important source of information is visits to companies, followed by the annual report. Abu-nassar and Rutherford (1996) did not, however, perform any statistical test to determine whether the difference in the perceptions of different users are significant, which would have allowed them to

conclude whether such users are homogenous or heterogeneous.

Following the methodology of Lee and Tweedie's study (1975), Bartlett and Chandler (1997) undertook a study to examine shareholders' use of other sources of information. They found that financial press reports are the most widely read, a similar observation to that in Lee and Tweedie (1975). An interesting finding by Bartlett and Chandler is the majority's desire for less information in the form of a summary report in preference to the annual report itself.

Al-mubark (1997) carried out an empirical study to investigate the usefulness of annual corporate reports to investment analysts in Saudi Arabia. A postal questionnaire was used to gather data. Al-mubark (1997) analysed 126 responses and found that the annual corporate report was the most important source of information to these analysts (86% of the sample). According to Al-mubark the investment analysts prefer companies to make projections about their next year's profit, sales and dividends. Epstein and Palepu's survey (1999) covered 140 sell-side analysts. They found that annual reports are considered an important source of information (less so than private contacts and analysts' meetings).

In Saudi Arabia, Almahmod (2001) surveyed financial information users' to determine their attitude towards the use of different sources of information in Saudi Arabia. Almahmod (2001) targeted 326 users, composed of individual investors, institutional investors and financial analysts. Almahmod (2001) reported that most Saudi individual investors' considered the annual corporate report to be the most important source of corporate information, while relatives and friends' advice is the least important source.

In Kuwait, Nasser et al in 2003 conducted a questionnaire survey in Kuwait to explore the perception of various groups of users of financial information about corporate reporting and their information sources. Nasser et al (2003) sampled eight groups of users, securing 360 useable questionnaires: institutional investors, individual investors, financial analysts, bank loan officers,

government officials, auditors and stock market brokers. It was found that, at the whole sample level, the respondents rank the annual report as their first source of information, followed by information directly obtained from the company and specialist advice. Moreover, Nasser et al (2003) examined participants' opinion about what parts of annual report (hard copy) are most credible. The results indicated that all user groups view financial statements as the most credible part of the annual report, followed by the auditor's report. The directors' report, however, received the lowest ranking. It is worth noting that the result implies variations in the participants' opinion about the extent of credibility that they attach to the notes to the accounts.

In Saudi Arabia, Al-Razeen and Karbhari (2004) conducted a survey to discover the view of Saudi users about their information sources. They targeted individual investors, institutional investors, creditors, governmental officials and financial analysts. Al-Razeen and Karbhari (2004) analysed the responses of 237 users of financial reporting. They noted that the annual corporate report is the most important source of information for all users followed by the interim report. However, Saudi users think that friends' advice and market rumours are the least important sources of information.

In 1996, private investors ranked websites 19th out of 23 possible sources of information which might be useful for investment decisions (Taylor, 1998). Even in 1999, the Internet was still ranked only 13th out of 26 sources (Taylor, 1998). Barker's (1999) results for institutional investors in the UK were similar.

3.3 Users' information need:

Accountants are the gatekeepers of the financial market. Without accountants to ensure the quality and integrity of financial information, the market for capital would be far less efficient, the cost of capital would be far higher and our standard of living would be lower (Wallman, 1995). Corporate financial reporting and corporate disclosure exist in the context of a dynamic, constantly changing business world in which competitive challenges and business opportunities arise quickly (Elliott, 2002). Firms are advantaged if they are agile in adopting

corporate structures and developing people's use of innovation and sophisticated financial instruments (Elliott, 2002).

In addition, information technology (IT) is changing everything. It represents a new, post-industrial paradigm of wealth creation which is replacing the industrial paradigm and is profoundly changing the way in which business is done (Wallman, 1995). Because of these changes in business, the decisions which users must make are very different from former decisions (Wallman, 1995). If the objective of accounting information is to support business decision-making and types of decision and users' needs are changing, then it is natural to expect accounting to change – both internal and external accounting (Elliott, 1996).

Users of financial information based on the current Generally Accepted Accounting principles (GAAP) complain that they cannot take accurate decisions with today's accounting information (Elliott, 2002). The problem is that GAAP (USA GAAP) is not a good measurement of the creation of real value (Elliott, 2002). Thus financial information and corporate disclosure cannot keep pace with the rapid changes in the business world (Elliott, 1996; Wallman, 1995). GAAP has several of the limitations of traditional external accounting (Elliott, 1996; Wallman, 1995). First, GAAP limits the reporting entity's accountability as regards financial information (Wallman, 1995). However, users also want to know a company's nonfinancial information, such as its mission and goals, its strategy, the industry in which the company participates, the competitive position within this industry and its human assets (Elliott, 1996; Wallman, 1995). Second, the current financial system of periodicity and the timing of reports has been in place for decades, despite the dramatic change in the business environment. Firms' financial reports need to reflect this change (Wallman, 1995). Today, annual and even quarterly reports do not capture and communicate material developments in sufficient time to meet market information needs (Elliott, 1996).

It is hard to obtain an accurate picture of a quickly moving and changing item when only slow images are taken. Current Accounting regulation (USA regulation) provides users of financial information with periodic statements

(Elliott, 1996). Financial Periodic statements follow the annual agricultural pattern, later expanded to a quarterly pattern in some countries (Elliott, 1996). However, the volatility of today's markets suggests that more frequent reporting of some sort would be valuable and IT permits this (Elliott, 1996). Third, a new business environment with IT technology increases the speed of change to a very great extent (Elliott, 1996). As a result, historical reporting is no longer seen as a good predictor of the future. In this situation, users suggest that forecast information should be supplied (Elliott, 1996). Another limitation of GAAP is its cost-based method. It ignores the fact that assets and liabilities are subject to increasingly rapid shifts in value (Elliott, 1996). Consequently, historical measures of some assets are unrealistic and unusable for any purpose (Wallman, 1995), while intangible assets are not recognized at all on the balance sheet. In recent years, for example, service firms comprise the fastest growing segment of our economy (Wallman, 1995). Nonetheless, the most important assets of many these firms – intellectual property and human assets – will not be found anywhere on their balance sheets (Elliott, 1996; Wallman, 1995). Fourth, since accountants are concerned with communicating information to users, they must be aware of the needs of their audience (Elliott, 1996). These needs, in part, are affected by the degree of sophistication of the users. Finally, firms present financial information in a standardized form on paper, whereas IT opens the possibility of presenting data in different forms. IT makes it possible to disaggregate real time reporting and also provides users with access to companies' raw data (Wallman, 1995). The following paragraphs will discuss some earlier studies of users' information needs.

Several studies investigate accounting information based on the impact of corporate disclosure practices and the usefulness of the information in decision-making for such users as financial analysts, shareholders, creditors and researchers. These studies measure the usefulness and quality of disclosure based on a disclosure index or disclosure ratings. It should be mentioned that the term "quality" has been used interchangeably with the term "transparency". Because the concepts of quality and transparency are elusive (Kothari, 2000), different interpretations have been placed on the meaning of high quality financial information. The following sections present a review of the literature

relating to users' information needs. This review provides a basis for understanding the area of research on users' needs.

One of the early studies attempting to ascertain users' information needs was carried out by Baker and Haslem in 1973. They summarized the responses of 851 individual investors residing in metropolitan Washington, D.C., U.S.A. regarding the information items which they expected companies to disclose. Baker and Haslem in (1973) reported that the individual investors attach great importance to the information about the future expectation of the company and a lower degree of importance to the information regarding dividends. The authors, however, offer no explanation, of this finding.

Benjamin and Stanga (1977) compared the views of bank loan officers with those of financial analysts regarding items of information which could be disclosed in a company annual report. Benjamin and Stanga (1977) analysed the responses of 208 bankers and 207 financial analysts who were asked to rate the importance of 79 items of information items which companies might disclose in their annual report. Using a chi-square test, Benjamin and Stanga (1977) found significant differences between the bankers and financial analysts in 51 of the 79 items presented to them.

Contacting a wider range of parties who might be interested in corporate disclosure in the U.K., Firth (1978) measured a multi-group consensus of the perceived importance of a set of information items which could be disclosed in a company's annual report. Using a questionnaire survey, he analysed the responses of 302 subjects including finance directors, auditors, financial analysts and bank loan officers. The respondents were asked to rate the importance of each of the 75 information items in the questionnaire. The major finding of Firth's study is the similarity of views between finance directors and auditors, on the one hand, and the similarity of views of financial analysts and bank loan officers on the other. Another finding by Firth in this study is that users (i.e., financial analysts and bank loan officers) attach, in general, a higher level of importance to the disclosure of most of the items presented to them.

**PAGE
MISSING
IN
ORIGINAL**

the future of the company (75%) and information about the directors of the company (59%). In the same country, Ba-owaidan (1994) examined individual investors' perception on various aspects of Saudi annual corporate reports. He analysed the responses of 135 individual investors and revealed that the investors' requested the disclosure of more information by a listed company, such as information about profit forecasting, expanding the current disclosures made in basic financial statements and budgeting.

In Egypt, Ibrahim and Kim (1994) measured the perceptions of various user groups of annual corporate reports about the importance of a set of items of information which might be disclosed in an annual corporate report. Using a questionnaire, they analysed the responses of 311 individuals representing accountants, shareholders, managers and financial analysts. The respondents were asked to rate the importance of 42 items of information which might be disclosed in an annual report. They noted that there were significant differences in the perception of different groups of users, arranged in pairs, regarding many items. These differences ranged from 14 items between accountants and managers to 31 items between financial analysts and investors. Ibrahim and Kim (1994) did not, however, explain which items of information users have differences over in rating the importance of such items.

Epstein and Freedman (1994) summarized the responses of 246 individual investors in the US about their demand for socially oriented information in annual reports. Epstein and Freedman (1994) found that most individual investors demand more information on activities other than economic performance, such as product safety (85%), environmental activities (82%) and corporate ethics (72%). In the US, also, Carolyn (1994) conducted a questionnaire survey to discover the views of professional users about their information needs. Carolyn's sample consists of 1300 chartered financial analysts (CFAs) (508 replies being received). Carolyn (1994) found that users' desire more information than at present to be provided in the annual corporate report, such as a company's competitive position (93%), industry trends (92%) and long term corporate goals (78%).

In the USA one year later, Eccles and Mavrinac (1995) surveyed analysts and portfolio managers and found more demand for increased non-financial disclosure (above one-third believing that such disclosure should be mandatory). The Jenkins Report (1994) conducted a study to identify user's information needs and found that professional users requested more disaggregated information, forward-looking information and more information about assumptions in determining material assets and amounts of liability. In the same year, Eccles and Mavrinac (1995) evaluated the usefulness of 26 different financial and non-financial measures for respondents, who rated the following items as the most important measures; earnings, cash flow, cost and segment performance, market growth, market share, new product development, research and development investment and capital expenditure.

A study in Australia was carried out by Anderson and Epstein in 1995, concerning individual investors' information needs. Anderson and Epstein's sample consisted of 436 individual shareholders of four large Australian companies. Anderson and Epstein (1995) reported that the investors wanted a simplified and more explanatory balance sheet, a statement of cash flow and an income statement. In the UK, Bartlett and Chandler (1997) conducted a survey to examine shareholders' information needs. Based on responses from 76 shareholders, they found that most of them would prefer less information in the form of a summary report rather than the annual report itself.

In 1998 Anderson examined Australian institutional investors, to find their perception of their information needs. He analysed the responses of 188 institutional investors. 72.4% of his respondents would have liked additional information to be provided in annual corporate reports. They request, for example, information about the company's product, the current value of long term assets and remuneration of directors.

Hassan et al (1999) conducted a study to discover the views of 247 Malaysian users regarding the desirability of disclosing 25 items of selective information. These 25 items of information were grouped into three themes: disclosure of accounting information, of corporate information and of corporate social

responsibility. They concluded that most respondents (over 70% at least) agreed that information which is generally found in the traditional media should also be disclosed on the Internet.

In the same year, Bell and Tang (1999) conducted a study to discover the views of users regarding a company web site. The target group participating in this study consisted of university graduates between the ages of 25 and 35 who used the Internet on average three hours per week. Their sample asked about 60 large companies all over the world. Six selected industry sectors – electronic commerce, entertainment and leisure, finance and banking, information services, retailing and tourism and travel – were identified and ten companies from each sector were selected. The study used ten questions in total, eight of which had answers rated on a five-point Likert scale and two which required a simple yes/no answer. Questions 1-6 asked about general presentation, while questions 7-10 related to the usefulness of the web site. In general, the survey found that the web sites rated highly (above average) in terms of ease of access, content and structure, but scored poorly on question eight (about unique features). In terms of sector by sector analysis, it was found that the retailing sector scored best overall, while the worst score went to information services.

AICPA (2000) analysed the responses of 600 investors who were asked to express their views of new items which companies might disclose in an annual report. AICPA (2000) reported that the information about measuring the value of new services and products scored highest (87%) of all the items, followed by auditor-reviewed current or forward-looking financial information.

Contacting a wide range of parties who might be interested in corporate disclosure in the U.K., Beattie and Pratt (2001) measured a multi-group consensus of the perceived importance of a set of items of information which might be disclosed in a company's annual report. Using an interview and a questionnaire survey, Beattie and Pratt (2001) analysed the responses in 22 interviews and 538 (33%) questionnaire responses, including expert users, private shareholders, finance directors and audit partners. The respondents in

this survey were asked in the questionnaire to rate the usefulness of each of 130 information items, all of which could be disclosed in an annual corporate report. These items were split according to topic into eleven categories, namely: background and strategy, risks and opportunities, financial, management discussion and analysis, process, employees, customers, innovation, intellectual capital, environmental and social and community. In general, Beattie and Pratt (2001) found that of the financial items, disclosure of broad objectives and strategy, together with items about some management discussion and analysis, background, risk and value-drivers of innovation were rated most highly by all four respondent groups. At the same time, process and employee value drivers and intellectual capital disclosure were rated very much further down. Moreover, 56% of the respondents believe that providing a special section on a corporate website for business reporting (e.g. investor relations) is very useful for them. In terms of desirable types of financial information for users' needs, Beattie and Pratt (2001) found that 54 percent of users favoured companies which provided pre-packaged information based on a standard template for each group of users.

In terms of usability, Beattie and Pratt (2001) found that most respondents (more than 78%) either strongly agree or agree that information should be layered to avoid the overload problem and more than half (56%) wanted a search facility to be provided on corporate web sites, while almost half the respondents (49%) believed that offering a hyperlinked site map or table of contents is valuable for users, 39% would prefer 'Next' and 'Back' buttons at the bottom of the page and 41% want Email alerts. Moreover, 83 percent requested that companies should clearly distinguish information which is continuously updated from that which is periodically updated and 45% request an archived audio-visual record of general company meetings.

In terms of presentation, Beattie and Pratt (2001) found that the spreadsheet format (2.21) is seen as being of most use, followed by word-processed files (2.31) and the XBRL format (2.41). The more common current formats, HTML (2.5) and PDF (2.51), are seen as being of least use. Moreover, 32% of users would like companies to broadcast general company meetings live via a

satellite television channel or video webcast and 47% would like a webcast of AGMs. As regards credibility, on average most (76%) users either agreed or strongly agreed that the record of general meetings should be placed on the website and 35% requested that records of one-to-one meetings should be made available on websites. In terms of timelines, 60% agreed that business reporting should be updated periodically (e.g. quarterly or monthly but not continuously) and also 60% of respondents used the Internet almost daily. Moreover, Beattie and Pratt (2001) found high similarity between the views of finance directors and audit partners by using a correlation test. According to their results Beattie and Pratt (2001) indicated that there is great similarity between the mind-sets of preparers and auditors.

In terms of respondents' views about the immediate trend of Internet financial reporting (IFR), Jones et al (2001) used the Delphi technique to obtain views from 17 experts in accounting and/or the Internet (representing academics, auditors, regulators, reporting companies and users from UK). Jones et al (2001) reported that in the immediate future of IFR there will be a growth in non-financial, non-audited information, especially qualitative information, social and environmental information and a greater focus upon forecasting instead of historical data.

Nasser et al (2003) found that the Kuwaiti user groups (eight groups) rated all the listed features of useful corporate information as being highly important. Credibility and timeliness were viewed by almost all groups as the most important features of useful corporate information. Moreover, Nasser et al (2003) measured the perceptions of various users' groups of annual corporate reports in Kuwait about the importance of a list of expected items which might appear in an annual report. Using questionnaire survey, they analysed the responses of 306 individuals representing institutional investors, individual investors, financial analysts, bank loan officers, government officials, auditors and stock market brokers. The respondents were asked to rate the importance of 31 information items which might be disclosed in an annual report. Nasser et al (2003) found variations between the target groups regarding many information items. In this respect, it should be noted that the consensus among

users' groups in Kuwait, as a developing country, are not as significant as those in developed countries. Moreover, Nasser et al (2003) requested users to identify a suitable period of time within which an annual report should be published so as to make it more relevant from the users' perspective. The study found that almost all respondents within individual groups or the sample as a whole either strongly agreed or agreed that the annual report should be published within 30 days of the end of the accounting period (for hard copy reports). The respondents, however, either strongly disagreed or disagreed that there should be any longer time allowed. Needless to say, users of financial reporting in Kuwait need more timely information.

In terms of respondents' views about financial reporting on the Internet by 2010, Jones and Xiao (2004) used the Delphi technique to obtain the views of twenty experts in accounting and/or the Internet (representing academics, auditors, regulators, reporting companies and users from the UK) regarding financial reporting on the Internet by 2010. Overall, Jones and Xiao (2004) found that, by 2010, more companies will be providing users with relevant, timely information, more frequent reporting, raw data to selected users, customized reporting and reporting in multiple measurements, languages, currencies and GAAPs. Multimedia presentation will become the norm.

Rowbottom et al (2005) conducted a study to measure the demand for online investor information (IR). The web logs of companies listed on the London Stock Exchange were used to measure online demand for IR. Web log files provide specific data on each file processed by the server (e.g. the IP): the address of the computer requesting the information, the date and time of the request and the size and Universal Resource Locator (URL) of the file requested (Rowbottom et al, 2005). To assess the average number of page views per month, Rowbottom et al (2005) found that the highest levels of page views were in August 2001 and thereafter access declined steadily until December 2001 before reducing sharply in January 2002 and remaining relatively stable for the remainder of the sample period. It is noteworthy that there is a correlation between the level of demand for company information and current events; economy-wide, industry-specific and company-related. In terms

of the financial information presented, the study reported that users favour PDF formats to view financial reporting information (92%) and there was little demand for financial reporting in an HTML format (8%). In terms of users' information need, the pages viewed most often were: income statements (14.4%), notes to the financial statements (14.2%) and balance sheets (13.2%). The pages viewed least often by web site visitors were: directors' reports (7.8%), statements of total recognised gains and losses (5.4%) and auditors reports (5.2%).

3.4 Conclusion:

In summary, this chapter has reviewed a sample of past studies which have sought to discover users' information sources and users' information needs. The review has shown, first, that only one study is concerned with users' needs and Internet financial reporting. Second, the annual corporate reports in many countries is the most important item, despite its problems of timeliness. Most of the studies reported that individual investors in particular have some difficulty in understanding the contents of annual reports. Most of the studies which examined the information needs of different users of annual reports found significant differences between the needs of those users' groups, a conclusion suggesting that the external users of the annual reports are not homogenous in terms of their informational needs about companies. The next chapter will review the empirical studies which investigate the current level of IFR and review the advantages and disadvantages of IFR and alternative IFR models.

Chapter 4: IFR Descriptive Literature Review

4.1 Introduction:

Since the publishing of the article by Elliott there have been sustained improvements in functionality and reductions in the transaction costs of information and communication technology (Xiao et al, 2004). One of the clearest changes in the past decade has been the adoption of the Internet by the corporate sector to disseminate financial information (Lymer, 1999). The Internet is considered more relevant to corporate financial reporting. *First*, its flexibility of presentation provides an opportunity for firms to adopt alternative models of reporting, such as customised financial reporting (Rowbottom et al, 2005; Wallman, 1995). *Second*, the Internet can offer companies the chance to rapidly update the provision of information on a more timely basis, thus enhancing the usefulness of information for users (Khadaroo, 2005; Joshi and Al-Bastaki, 2000). *Third*, the Internet is above all not restricted by geographic boundaries, allowing the global distribution of corporate information and, moreover, increasing the potential population of users and communicating with unidentified consumers of information (Hassan et al, 1999; and Debreceeny et al, 2002). *Fourth*, the Internet enables firms to provide new types of information because they are considered more convenient than hard copy, at lower cost and with no regulations involved in the provision of information (Debreceeny et al, 2002). *Fifth*, it reduces the gap between sophisticated users and others (Rowbottom et al, 2005).

Since one of the main themes of this research is Internet financial reporting (IFR), it may be useful here to include a general review of some related studies. Their topics are divided into four main categories. The first category includes studies which are mainly descriptive. They give a general overview of the current state of corporate reporting on the Internet. These studies can be concentrated on one country or they can compare different countries. The second category includes studies investigating the main reasons for developing a website from the preparers' point of view. The third category comprises research which goes a step further and tries to identify the advantages and disadvantages of Internet reporting. The fourth category includes studies which

give a general overview of Internet reporting models.

4.2 Current Use of Internet reporting:

Examples of this types of research are studies by : Lymer (1997), who analysed the 50 largest U.K. listed companies, Hussey et al (1998), who compared financial disclosure for the U.K. FTSE 100 on August 1997 and March 1998, Molero et al (1999), who examined Internet disclosure in Spain, Deller et al (1999) analysing German companies, Lymer (1999) and Lymer and Tallberg (1997), analysing U.K. and Finnish companies, Pirchegger et al (1999), analysing Austrian companies, Hassan (1999) analysing Malaysian companies, Abu Al-Azm (2001) analysing Saudi public companies, Joshi and Al-Bastaki (2000), analysing Bahrain banks, Xiao et al (2004) analysing Chinese companies, Abdelsalam et al (2004), analysing all the Sensex companies in India, Amir Allam (2006), making an international study, and Abdelsalam et al (2007), both analysing U.K. listed companies (see Table 4-1). Studies of this kind mainly give the reader an indication of the popularity of the IFR. They reveal that, first, it has become increasingly common for large companies to communicate information to external users on the Internet as a useful and preferable channel (Petravick and Gillett, 1998; and Lymer, 1997). Second, most of the studies examined the use of the Internet in developed countries, in particular in the USA and Europe. Finally, a review of previous studies suggests that the most previous studies are descriptive. They focus mainly on the current use of Internet reporting. Moreover, the greater proportion of them are practitioner focused and also limit the proportion of literature which is theoretically grounded (Xiao et al, 2000 and Abdelsalam et al, 2006 and 2007).

As mentioned above, internet usage is more advanced in developed countries. Consequently, the U.K. and USA authors dominate the literature review in this area. This section provides a synopsis of the research related to the Internet and business reporting. The first part summarises research undertaken in developed countries (mainly North America/USA and Canada) then studies made in Europe; the second part summarises research undertaken in developing countries and the last section summarises international studies.

Table 4.1: Previous Studies that Examined the Status of Financial Reporting

No	Author	Year	Country	Sample	Sample scope	Web site %	Financial Information %
1.	Petravick and Gillet	1996	Fortune	150	Top Fortune 500	69	54
2.	Louwers et al	1996	Fortune	100	Top Fortune 500	56	46
3.	Gray and Debreceeny	1997	Fortune	50	Top Fortune 500	98	70
4.	Gray and Debreceeny	1997	Fortune	100	Top Fortune 500	96	71
5.	Flynn & Gowthorpe	1997	Fortune	100	Largest Fortune 500	89	96
6.	Laymer & Tallberg	1997	UK	50	Top on Stock Exc.	92	56
			Finland	72	Listed Helsinki Exc.	86	89
7.	Marston and Low	1998		100	FTSE	63	71
8.	Brennan & Hourigan	1998	Ireland	93	Listed	49	65
9.				15	Semi-state	15	8
10.	Hussey et al	Aug 1997 Mar 1998	UK	100	FTSE	75	84
						91	69
11.	Craven & Marston	1999	UK	206	Largest listed in FT	74	71
12.	Deller et al	1999	USA, UK & Germany	300	100 in (S&P, FTSE, and DAX	95 USA, 85 UK, 76 GERMAN	91 USA 72 UK, 71 GERMAN
13.	Pontus Hedlin	1999	Sweden	60	Listed in Stockholm	98	83
14.	Gowthorpe & Amat	1999	Spain	379	Madrid Stock Exchange	16	56
15.	Pichegger &	1999	Austrian	31	Largest Co. listed in Vienna S.E	71	91
16.	Wagenhofer		Austrian	31		87	96
			German	30	Largest in DAX	100	97
17.	Ashbaugh et al.	1999	USA	290	AIMR (CFA)	87	70
18.	Brennan & Hourigan	1999	Ireland	106	Listed and Semi-state	46	65
19.	Salleh Hassan et al	1999	Malaysian	247	largest companies	36	46
20.	Lymer	1999Feb	UK	50	Top 50 market apitalisation	46	26

Table 4.1, continued

No	Author	Year	Country	Sample	Sample scope	Web site %	Financial Information%
21.	Gerald, et al	1999 June Dec 1998	USA Canada	370	New York Stock NASDAQ	46	30
22.	IASC	Mar 1999 1999	Int.	660	660 largest listed 22 countries	71	51
23.	Joshi & Al-Bastak	2000	Bahrain	35	Banking sector	63	82
24.	FASB	2000	Int.	100	Large Fortune	99	94
25.	Fahem abu Al-Azm	2001	Saudi Arabia	69	All listed in Saudi stock market	49	18
26.	Ettredge et al	2001	USA	490	AIMR (CFA)	82	80
27.	Debreceeny et al	2002	Int.	660	Dow Jones	86	73
28.	Ettredge et al	2002	AIMR	220	AIMR (CFA)	88	Not clear
29.	Marston	2003	Japan	99	Top 10,000 Times Books	92	79
30.	Oyelere et al	2003	New Zealand	229	New Zealand S.E.	54	73
31.	Xiao et al	2004	China	300	Largest companies	83	58
	Abdelsalam et al	2004	India	30	All Sensex	100	Not clear
	Marston & Polei	2004	German	100	Frankfurt Stock Exchange.	100	99
32.	Smith and Peppard	2005	Ireland	48	Irish stock exchange	45	43
33.	Khadoree	2005	Malaysian	100	Malaysia's KLSE indexed	75	
			Singapore	50	Straits Times' index	78	
34.	Amir Allam	2006	International	250	Top 50 companies in 5 countries	100	100
35.	Abdelsalam et al	2006	UK	110	Top 110 London-listed companies	100	100
36.	Kelton and Yang	2008	Canada	284	NASDAQ	100	98

4.2.1 Internet reporting in developed countries:

One of the early studies of the current status of financial reporting was carried out by Petravick and Gillet in 1996. They summarised the survey of the 150 top Fortune 500 companies. This study found that 69 percent of the companies had web sites and 54 percent of them made some financial information available. In the same year, another study of the same population was made by Louwers et al (1996). The main finding was that 65 percent had websites and 46 percent had financial information. The difference in the results between the two studies was for one of two reasons; first, websites seem to be changing quickly, or access to the company website or certain items on it could be difficult.

Gray and Debreceeny (1997) carried out two studies of the current status of financial reporting among Fortune 500 companies. The first one dates from December 1996. The target sample was the top 50 Fortune 500 companies. Gray and Debreceeny (1997) reported that 49 (98%) of the top 50 had websites, on which 34 (68%) of them distributed their annual report. The second study was in 1997. These writers collected statistics for the top 100 Fortune 500 companies. First, they analysed the top 50 to compare with 1996: the study revealed that again 49 (98%) had websites and 35 (70%) included on them their annual reports. The figures are slightly changed. The second step was to look at the complete 1997 sample (the top 100 companies). They reported that 96 percent had websites and 71 of them distributed their annual report on their website.

In the same year, Flynn and Gowthorpe (1997) conducted a similar study to examine the content of the websites of the 100 largest companies in the Fortune Global 500. In general, it was learned that 89 out of the 100 companies had websites, 85 (85%) of them including some sort of financial information. However, this study is considered valuable because it is one of the few academic studies to use theory to examine the nature of the voluntary provision of financial information on the Internet. According to Yoshimori's classification, Flynn and Gowthorpe (1997) found that 28 of the companies were monistic, 13 dualistic and 31 pluralistic. Two years later, Ashbaugh et al (1999) carried out a

survey to examine the extent of Internet reporting of 290 companies identified by the Association for Investment Management and Research (AIMR) (in 2004 the name of this organisation changed to the Chartered Financial Analysts (CFA)). In January 1998, Ashbaugh et al found that 253 (87%) of the total sample had a website. 177 (61%) of them disclosed financial information.

Ettredge et al (2001) investigated a sample of 490 US firms between February and May 1998, out of which 402 (82%) had websites. In 2002, Ettredge et al (2002) empirically investigated the disclosure of financial information on the Internet. Their sample consisted of 220 companies identified by the Chartered Financial Analysts (CFA). It was found that 193 companies (88%) had a website and 68% disclosed some sort of financial information. Trabelsi et al (2004) empirically examined the disclosure of financial information on the Internet. Their sample was 35 randomly selected Canadian companies. In terms of financial information content, it was found that 97% provide an annual report, and 95% a quarterly report.

Most of these studies were unclear as to the methodology of measuring the content of financial information. The samples used in these studies to identify the current extent of Internet reporting also mainly consider the largest companies. Therefore, the results of these studies do not necessarily represent the whole picture of Internet disclosure in North America. Nevertheless, the review of previous studies shows that the Internet is considered a valuable channel of communication with users. Moreover, between 65 and 98 percent of the largest North American companies had a website and those which disclosed financial information ranged from 46 to 97 percent.

In European countries the research on the use of Internet reporting is mostly written by U.K. researchers, followed by authors from other countries. Lymer (1997), for example, surveyed the use of the Internet for corporate reporting of the top 50 companies in the U.K. by market capitalisation. The study provides time-series data over two years (end January to early February, repeated in June 1997) in order to provide an insight into the dynamic developments in this

area. The main finding indicated that most (46=92%) of the top 50 U.K. companies had websites in January and exactly the same in June. Only 26 (50%) provided some kind of financial information at the start of the year.

One year later (1998), Hussey et al examined the disclosure of financial reporting on the Internet by the FTSE 100 U.K. companies in August 1997 and March 1998. The study revealed that in 1997 approximately 25 (25%) companies did not have websites and 63 (63%) of the remaining companies disclosed financial information, while the number of companies without a website reduced in March 1998 to only 9 (9%). In March 1998, 63 (63%) of the FTSE companies used their website for disclosing financial information.

Marston and Leow (1998) studied the top 100 U.K. FTSE-100 firms in order to identify the level of Internet disclosure. In November 1996, 63 (63%) of the sample had a website. 45 (45%) of them disclosed financial information. In order to expand the previous study Graven and Marston (1999) carried out a survey to examine the extent of Internet reporting by 206 companies listed by market capitalisation in the Financial Times. The summarised finding clarified that at the end of July 1998, 153 (74%) of the sample had a website on the Internet, with almost 109 (53%) presenting financial information. 29 of the remaining 52 companies with no website made detailed accounts available on other commercial site services. One year later, Brennan and Hourigan (1999) examined the current stage of corporate reporting on the Internet by Irish listed and semi-state companies. The main result of this study was that 49 (49%) of 106 companies in the sample had a website; and of this number 32 (30%) disclosed financial information.

Gowthorpe (2004) conducted a study to examine the website content of 256 smaller U.K. companies listed on the London Stock Exchange. It was found that 231(83%) out of 256 companies had a website and 168 (66%) of them included some sort of financial information. Smith and Peppard (2005) examined the Internet financial reporting practices against international best practices for all public limited companies (PLCs) listed on the Irish stock exchange. The final sample comprised 48 PLCs. It was been found that 45% of the Irish listed

companies had a website, 43% of them included some sort of financial information. Abdelsalam et al (2006) surveyed the corporate websites of 110 London-listed companies to examine the disclosure of financial reporting. At the time of the study, all London-listed companies had a website and 108 (100%) companies published annual financial statements online.

The observations from the U.K. and Irish studies are that, first, these studies mainly concentrate on the largest companies, as the USA studies do, and they focus specifically on the top 100 or 200 FTSE companies. Second, most companies consider the Internet an effective way to communicate; 100 and 45 of U.K. and Irish companies had a website and 100 to 43 of them include financial information on it. Nevertheless, the variation between the results of the studies with the same sample needs following up in greater depth to account for it.

The studies in other European countries and the rest of developed world include those of Marstona and Polei (2004); Fisher et al (2004); Oyelere et al (2003); Marston (2003); Fisher et al (2000); Gowthorpe and Amat (1999); Pirchegger and Wagenhofer (1999); and Deller et al (1998). Lymer and Tallberg (1997), for example, survey all 72 listed companies in Finland to examine the level of Internet disclosure. They found, briefly, that 86 percent (62 companies) among the Finnish listed companies had a website. 76 percent of them (55 companies) included some financial information. In September 1998, Hedlin examined the disclosure of financial reporting on the Internet by all sixty companies listed on the Stockholm Stock Exchange. Twenty companies were taken randomly from different classes of company (mostly traded companies, small and medium sized companies and high-techs and newly started companies). The study revealed that almost all the companies (59=98%) in different groups had a website. Also most of them (83%) had some sort of financial information on it.

One year later (1999), Gowthorpe and Amat investigated the level of use of the Internet by Spanish companies (379) to communicate financial information and other information to interested parties. The first finding was that 61 (16%) of the total sample of 379 companies had a website and 34 (9%) out of 379

companies communicated financial or accounting information. But another study carried out in Spain by Molero et al (1999) reported different results. The general finding of Molero et al, was that 45 percent of companies on the Madrid Stock exchange had a Website and 65 of them disclosed some sort of financial information. The difference between the two studies is significant. More research is needed to find the reason for this interesting difference.

In the same year, Pirchegger and Wagenhofer (1999) examined the current level of financial information provided by Austrian companies listed in the Vienna Stock Exchange, using three different samples. The top largest companies listed on the Helsinki Stock Exchange were the targeted sample (in total, 31 companies in both 1997 and 1998). The third sample contains all 30 of the German DAX companies. By analysing the responses, it was found that in 1997 22 (71%) of the Austrian companies had a website, rising to 27 (87%) in 1998. However, 20 (65%) of them provided financial information in 1997 and 26 (84%) in 1998. Pirchegger and Wagenhofer (1999) discovered that the quality of the Austrian websites improved over the year from 1997 to 1998. Their third sample contained the 30 German DAX companies. They found that all of them had a website (30=100%) of which 29 (97%) provided financial information. One year later, Fisher et al (2000) in New Zealand found that 56 percent of listed New Zealand companies had a corporate Website, and, of those, 73 per cent used them to disseminate financial information.

Marston (2003) studied the top 99 Japanese listed companies (from 10.000 Times Books) in order to identify the current level of English language Internet disclosure. In 1998 the study showed that 91 (92%) out of the top 99 companies had a website on the Internet. 68 out of 99 (69%) companies disclosed financial information. In the same year, Oyelere et al (2003) examined the disclosure of financial information on the Internet by all 229 companies listed on the New Zealand Stock Exchange (NZSE) at the end of 1998. It was found that 123 companies (54%) had a website. In addition, the study found that of 229 companies listed on the New Zealand Stock Exchange, 90 (39%) disclosed financial information on it.

One year later, Fisher et al (2004) conducted a study to examine issues related to auditor reporting provided by New Zealand listed companies (210 companies). The study focused on data relating to the format and location of the audit report, content of the audit report and cases of inappropriate association of audited and unaudited information on the Web. In terms of financial information content, Fisher et al (2004) found that 188 (90%) out of 210 listed companies had a website. 131 (62%) out of 210 companies provided full annual financial statements, while 87 (41%) disclosed interim financial statements. Fisher et al (2004) also found that most New Zealand listed companies (129=61%) located financial information on their own website. In the same year, Marstona and Polei (2004) examined the disclosure of financial information on the Internet by German companies between two points of time (2000 and 2003). The sample consisted of 100 DAX companies in July 2000 and 44 DAX companies in July 2003. Marstona and Polei (2004) found that all these companies had a website of which 99 (99%) in July 2000 but only 44 (44%) in July 2003 disclosed financial information on their home pages. The result implies that companies do not consider the Internet to be an important medium for disseminating financial information.

These studies undertaken so far in European countries and other developed countries show that companies find the Internet an attractive way to distribute information to users. The figures, for example, indicate that between 16% and 100% of the samples of companies had a website and between 9% and 84% of these companies included financial information on the Internet. Again the variations between the studies results for the same samples needs study in more depth to account for this variation.

4.2.2 Internet reporting in developing countries:

The extensive review of the literature reveals that few studies have researched financial reporting on the Internet in developing countries. So far there are only six studies of developing countries in this regard, namely, those by Khadaroo (2005); Abdelsalam et al (2004); Xiao et al (2004); Abu Al-Azm (2001); Joshi and Al-bastaki (2000); and Hassan et al (1999).

Hassan et al (1999) examined the disclosure of financial reporting on the Internet by 247 listed and unlisted Malaysian companies. They (1999) found that 89 (36%) of the total sample of 247 companies had a website but only 41 (16%) of companies disclosed financial information on it.

In the GCC (Gulf Cooperation Council), only two studies have been undertaken, one by Joshi and Al-bastaki in 2000 and the other by Abu Al-Azm in 2001. Joshi and Al-bastaki in 2000 provided descriptions and empirical information on how banks in disclose their financial information on the Internet. The total sample was 35 banks, including commercial banks, commercial and offshore banking and offshore banking units. In general, the writers found that 22 (63%) of the sample had a website and 18 (51%) of them disclosed financial information. In the following year, Abu Al-Azm (2001) examined the disclosure of financial reporting on the Internet by all Saudi listed companies (69) in February 2001. The summarised finding confirms that at the end of February 2001, 34 (49%) of the total sample had a website on the Internet, with almost 6 (9%) presenting financial information, all of which were located in the banking sector.

Xiao et al (2004) presented the results of a survey of Internet reporting based on the 300 largest Chinese companies. The study found that 248 companies (83%) reported having such a site, 45 of which turned out to be inaccessible. Of the 300 largest Chinese companies, 144 (48%) disclosed financial information on the site. Abdelsalam et al (2004) utilize a checklist comprised of 114 items (64 content items and 50 usability items) to examine corporate Internet reporting for all 30 Sensex companies in India. Abdelsalam et al (2004) reported that as of 9 July 2004, all companies had a corporate website. One year later, Khadaroo (2005) adopted the method used by FASB (2000) and Fisher et al (2004) to examine the Internet reporting practices of the 100 companies which make up the Kuala Lumpur Stock Exchange Composite Index (KLSE CI) in Malaysia. Khadaroo (2005) found that 91 (91%) had a website.

The above six studies show that Internet reporting is considered a very important approach to communication for developing countries; between 36 and 100 of companies had a website and between 9 to 51 of them included financial

information on it. Moreover, there is a scarcity of literature to examine the general impact of the Internet, on the GCC countries and Saudi Arabia in particular.

4.2.3 International studies in Internet reporting:

The International Accounting Standards Committee (IASC) in 1999 assessed the current level of Internet reporting around the world. They summarised the survey of a total of 660 largest firms listed by 22 countries. Among the 660 companies, the study found that most top companies 565 (86%) had a website, 410 (62%) of which carried some form of financial information. The preliminary analysis revealed that most top companies (85.6%) considered Internet reporting an important dissemination channel. Moreover, the developed countries are more sophisticated in their Internet use; 100 percent of the top 30 companies in Canada, Germany, Sweden and the United State had a website, whereas the developing countries obtained the lowest percentages, for instance, Malaysia with 13 (43.3%) and Chile 16 (53.3%). Based on these results, there seems to be need for further empirical study to investigate either the impact of the cultural background or the geographical location or both in Internet disclosure.

In the same year, Deller et al (1999) conducted a study to find whether these companies had a website or not and how the Internet was used as a channel for investor relations in the US, the U.K. and Germany. A sample comprising the respective countries' stock market 100 indexes (S&P, FTSE, and DAX) was used. They found that 95% of the US companies had a homepage, compared with 85% of the U.K. companies and 76% of the German companies. Another finding of the study was that 91% of the US companies used the Internet for investor relations activities while 72 of the U.K. did and 71 of the German companies. The results show clearly the relatively large Internet dissemination in the US.

Another international study conduct by Trites et al (1999) examined the current level of Internet reporting in Canada and the US in 1998 and 1999. Their study

was based on a random sample (370) out of 10,000 companies listed on the New York Stock Exchange, NASDAQ and the Toronto Stock Exchange. The result of the survey showed that 255 (69%) of the total sample of 370 companies had a website in 1998 and 261 (71%) in 1999. Of the 370 companies 129 (35%) included some sort of financial information on their website in 1998 and 132 (36%) out of 370 companies disclosed financial information in this format, while the numbers providing full financial information were almost identical, 95 (26%) in 1998 and 96 (26%) in 1999. It is noteworthy that this sample did not focus on large companies, unlike most of the studies but was designed to represent the full population.

In a large-scale study by Debreceeny et al (2002), the Internet presence of 660 companies, comprising the largest listed companies from 22 countries, was examined. It was found that 565 (86%) had a website and 410 (62%) of these had some form of financial information. One year later, Geerlings et al (2003) investigated investor relations activities on the Internet by the 50 largest listed companies in Belgium, France and the Netherlands. Geerlings et al (2003) found that 100% of the Dutch companies had a homepage, compared with 98% of the French companies and 96% of the Belgian ones. In France (94%) and the Netherlands (92%), more companies used the Internet for investor relations purposes than in Belgium (70%).

Khadoree (2005) compared the use of the web for the corporate reporting of Malaysian listed companies with those in Singapore. The study surveyed 100 companies listed on Malaysia's KLSE index and 45 companies listed on Singapore's Straits Times' index. The study also addressed the issue of whether there were significant differences between the levels and types of use by companies in these two countries at the time. In general, they found that 75 companies (75 %) of the Malaysian sample had a website compared with 39 companies (87%) from the Singaporean sample. As regards the disclosure of financial information, the study in general showed that the practice is rare in Malaysia (56% had annual reports, 25% quarterly reports, 63% balance-sheets, 60% statements of income, 59% statements of cash flow, 31% financial highlights, 48% audit reports and 20 auditors' signatures) as compared to

Singapore (67% had annual report, 21% quarterly reports, 80% balance-sheets, 80% statements of income, 77% statements of cash flow, 26% financial highlights, 69% audit reports and 26% auditors' signatures). One of the main limitations expressed by Khadoree (2005) about his study was that the sample was limited to listed companies in both countries and consequently the results cannot be generalised.

Amir Allam (2006) examined the disclosure of financial information on the Internet. The study covered the biggest 50 companies in 5 countries, a total of 250 companies. The five countries in Allam's (2006) study are the USA, the U.K., Canada, Australia and Hong Kong. Allam (2006), found that, overall, 249 (100%) had a website. On a country basis, the USA and Canada had the highest percentage of group websites, with 74%. At the other extreme, the U.K. scored the lowest proportion of corporate websites (52%). Thus the result suggests that company location is a potential factor affecting companies' decision to create a website. Of the total 250 companies, all had a financial information section or one for investor relations on the site.

In summary, this section has reviewed the group of previous studies which attempted to identify the current level of Internet reporting in different locations (developed and developing countries and international studies). In particular, the aim of this section was to answer the question; do companies around the world use the Internet? The results from these studies clearly show that firms consider the Internet an important channel. These lead to the conclusions, also, that, only a minority of the previous studies were undertaken in developing countries; that most of them were descriptive studies; third, that few of them were guided by theory; This conclusion raises some questions, for example, what are the main reasons for developing a website? What advantages and disadvantages do Internet financial reporting have? What is the content of a company website? In what ways do companies use their website? What types of information do they provide and how? What is the effect of some factor such as size in a company on creating an Internet presence or not? The next section shows an attempt by the research to answer some of these questions by investigating earlier studies and the remainder will be discussed in the following

chapter.

4.3 Reason for developing a website:

Several studies investigated what the main reasons are for developing a website from the preparers' point of view. Taylor (1998), for instance, identified four reasons to establish a website: (1) marketing (2) information provision (primarily, annual reports) (3) building brands, and (4) joining the Internet bandwagon. Hassan et al (1999) carried out a questionnaire survey to examine the main reasons to set up an Internet website. By analysing 247 questionnaires Hassan et al (1999) found that over 75% of the respondents either agree or strongly agree that creating a website presence will attract potential investors, local and foreign investors promote transparency and provide wider coverage compared with a hard copy report. Hassan et al (1999), however, reported that the main reasons for not adopting website were the availability of another channel of information, the difficulty of updating information, and the fact that it was not required by law. In the Bahraini environment Joshi and Al-Bastaki (2000) identified five objectives for banks in disclosing financial information on the Internet. The main objectives were: image building, reducing the time required to deliver financial information, reducing the cost of communication, using the channel to attract customers, and communicating to customers about news of their financial performance and operation.

FASB (2000) conducted an interview survey with fifteen preparers of Internet financial reporting from 93 Fortune companies which provided at least some financial information via the Internet to identify their aims, plans and operational issues related to the disclosure of financial reporting via the Internet. It was found that most of the aims included one, or a combination of some, of the following three goals: complementing a hard copy report, replacing a hard copy report (e.g., stock price history), and innovating with new offerings and tools (e.g. conference calls and e-mail alerts). Adams and Frost (2003) conducted a survey to find the primary purpose of developing a website. The study was based on a sample of Australian (101), German (137) and UK firms (131).

Adams and Frost (2003) analysed the responses of 35 from Australia (35 percent), 31 from Germany (23 percent) and 45 from the U.K. (34 percent). They found that the main objectives in developing a corporate website were the corporate image, communication with shareholders and selling through the web. We now turn to a detailed discussion of the advantages and disadvantage of the Internet financial reporting.

4.4 Advantages and disadvantages of Internet reporting:

Many would argue that this is long overdue. Hard copy financial reporting has been criticized on a number of grounds, for example, that it fails to meet the specific information needs of various user groups, it lacks timeliness, and lacks comparability (Elliot, 1991; Jenkins Report, 1994; AAA, 1966; Spaul, 1997). Burry (1999) suggests that a paper version will survive, but will be unused. Flynn and Gowthorpe (1997) agree. Moreover, Debreceeny et al (2002) say that traditional paper-based disclosure has important limitations and associated costs. With the increase in the geographic dispersion of investors, the paper form has become increasingly expensive and limited in its capacity to reach the users of information. In contrast, the Internet clearly offers far more options than hard copy does, in presentation, communication and dissemination, and substantially in scope, frequency and the extent of cross-referencing. In this way, the Internet can be seen as an alternative distribution channel for corporate information (Deller et al, 1999). Moreover, Stephen Voller, managing director of Internet Software company Netscape UK, mentioned that "It took the Internet five years to reach 5 million users, compared to 38 for radio and 13 for television". Speaking at the 1997 Annual conference of the U.K. Industrial IT forum in Birmingham, Voller was keen to make the point that the Internet is the fastest growing communication medium in history. With this in mind the next sections will discuss in detail the advantages and disadvantages of Internet financial reporting.

4.4.1 Advantage of Internet reporting:

The main benefits arising from the provision of financial information on the Internet have been discussed at length by a number of authors (e.g. Rowbottom et al, 2005; Khadaroo, 2005; Debreceeny and Rahman, 2005; Jones and Xiao, 2004; Trabelsi et al, 2004; Fisher et al, 2004; Gowthorpe, 2004; Geerlings et al, 2003; Adams and Frost, 2003; Xiao et al, 2002a; Xiao et al, 2002b; Carey and Parker, 2002; Debreceeny et al, 2002; Ettredge et al, 2002; ACCA, 2002; Ettredge et al, 2001; Hodge, 2001; and Xiao, 2000).

Briefly, these benefits include: providing users with 24 hour accessibility from any networked terminal anywhere in the world and with relevance and access to data at convenient times for them; the provision of real-time information; the ability to provide specific information to users meets their specific information needs; the provision of the latest, multi-dimensional data and more information than can be included in a hard copy annual report (i.e. news, briefings and other information related to the company or its industry); Improving the usefulness of financial information by providing users with related financial and non financial information. Moreover, the Internet allows users to enjoy downloadable facilities, cut and pasted and exported for user manipulation; site maps; multimedia functions (e.g. video, audio, graphics and 3D simulations), a variety of communication types (e.g. mail, interactive feedback forms, discussion areas and conferencing) to increase information usefulness and accessibility. The increased availability of information through the web enables users to read the reports of a large number of companies and produce exception reports and also improve the transparency, liquidity, and efficiency of capital markets. It narrows the skill gap between professional and non-professional (novice) users. Novices benefit from Internet technology (i.e. hyperlinks) in understanding and interpreting information and also professional users benefit from the improved presentation of financial information. It enables users to search and retrieve data as they wish to receive it. IFR enables users to give companies their comments and feedback. Finally, information providers can identify how many users have visited their site, who those users are and which parts of their site are the most visited; it costs little; and it is environmentally friendly. The next

section will discuss some of the main advantages of the Internet for detailed financial reporting.

4.4.1.1 Dynamic update and Interactivity:

Financial information in hard copy may suffer from problems of timeliness. Most information dissemination is updated annually or quarterly. By contrast, website technology allows financial information to be updated at any point during the year at reasonably low cost for all who are interested (Khadaroo, 2005; FASB, 2000; and Williams et al, 1999). Companies using the web to provide financial information are online 24 hours a day, seven days a week. As a result, users can get all the information they want when they want it (Trabelsi et al, 2004). The Internet has the capacity to speed up the release of information more promptly than before. Moreover, companies have exploited this future to add new meaning to the timeliness concept by offering dynamic data presentation to reflect new events and information (Rowbottom et al, 2005; Wallman, 1995; and Jenkins, 1994).

4.4.1.2 Facilitating interaction between companies and stakeholders:

Internet technologies gives companies the chance to make their disclosure much more attractive than hard copy reports (Rowbottom et al, 2005; IFAC, 2002; Ettredge et al, 2002; Ettredge et al 2001). For example, direct communication between the investor relations department and target groups, using features such as individual electronic mailings or mailing lists, online participation in company general meetings, analysts' conferences or Internet chat settings, conference calls and other communication devices enable interested parties to receive the most up-to-date information, requests and feedback instead of printed information (rather than one-way receiving information) (Rowbottom et al, 2005; Ettredge et al, 2002). Using cookie technology to identify and track users of online financial information also helps disclosure interactivity (Rowbottom et al, 2005; IFAC, 2002; ACCA, 2002; Ettredge et al, 2002; Ettredge et al 2001).

Carey and Parker (2002) claimed that interactivity could be achieved by timely data, explored and analyzed directly online, calculating data directly online, viewing data in different tables or charts (line charts, bar charts, area charts, pie charts and tables), the ability to send data by e-mail and download facilities. Carey and Parker (2002) also mention that web technologies allow users to analyze companies more easily and in greater depth than was previously possible. For example, graphic financial presentation makes it easier for investors to compare company performance. In addition, interactivity could be increased as a result of providing financial information in a multimedia format, using sound, voice and video to make financial information more attractive for users (Gowthorpe, 2004). Web technology could change the nature of the financial information and enhance its quality; it would be possible for companies to have virtual shareholders' meetings. For example, Sun Microsystems presents a three-minute video on the financial results of the company, complete with a slide show. Multimedia opportunities, however, raise concern about misleading representations (Gowthorpe, 2004; and Gerald, 1999).

4.4.1.3 Flexibility of presentation:

Financial information released in hard copy form cannot be changed once issued. However, Internet technologies allow a company to make the disclosure much more dynamic so as to reflect new events quickly. Moreover, it would be possible to provide financial data which offers the users a choice of jurisdictions or standards with just the click of a button. For example, Microsoft uses this approach (Trites et al, 1999; Green and Spaul, 1997). Flexibility can also be valuable where companies must convert their financial presentation to different jurisdictions or different sets of principles, such as those of Canada, the USA and the International Accounting Standards Committee (Xiao, 2000).

4.4.1.4 Cost:

Rowbottom et al (2005); Gowthorpe (2004); Fisher et al (2004); Xiao et al (2002a); Xiao et al (2002b); Ettredge et al (2001); FASB (2000); Hassan (1999); Trites and Sheehy (1997), and Lymer (1997) have revealed that the use of the Internet for disseminating financial reporting has significantly reduced the

number of phone calls, faxes and letters (mailing costs) requesting standard information, such as annual reports. Flynn and Gowthorpe (1997) asserted that Internet technology could create a new type of voluntary disclosure since the Internet is considered to be less expensive, relatively easy and with no regulation on the dissemination of information. Abu Al-Azm (2001) discussed the advantages and disadvantages of financial reporting on the Internet for Saudi listed companies. He reported that the main benefit is the saving of cost compared with hard copy reports. Interviews conducted by Ettredge et al (2001) found that directors of investor relations see the Website as a means of reducing administrative costs and that online disclosure helps provide a common level of disclosure to all stakeholders. Moreover, Beattie and Pratt (2001) mentioned that in the U.K. the marginal costs of publishing online financial reports are zero compared to an estimated £5 on average to send a hard copy of the financial report, even though, as McCafferty (1995) asserted, online reporting is limited to those with costly equipment and services and computer skills. Thus the information provider needs to make sure that online information has been disclosed previously or simultaneously by using other forms of communication. Moreover, Adams and Frost (2003) mentioned the costs associated with developing and maintaining a website as a significant disadvantage (e.g. maintenance cost, software licensing, paying developers and graphic designers, staff costs including costs of staff responding to emails, maintaining email lists, monitoring cost).

4.4.1.5 Widening information provision:

Companies with Internet technology are capable of providing an immense amount (breadth) and range (depth) of information about historical and future-oriented financial and non financial information to a wide range of stakeholders (Green and Spaul, 1997). This might include, for example, information about quality service assessments, management presentation, non-financial key performance indicators, competitive position, an online company fact book and environmental reports (Lymer and Tallberg, 1997). Moreover, Internet reporting not only increases the speed of disclosure, but it also makes reporting more easily accessible to all stakeholders in the manner and time desired (Xiao et al,

2002a; Xiao et al, 2002b; FASB, 2000; Iouwers et al 1998; Lymer and Tallberg, 1997, Green and Spaul, 1997; and Elliot, 1992). In addition, Wallman (1999) expected that users with suitable Internet technology will be able to get free access to corporate databases and drill down to the level of data required. Similarly, Spaul (1997) and Hodge (2001) believed that Internet technology will reduce the gap between financial information available for internal purposes (management) and for external users. Moreover, Schneider and Bowen (1997) and Beattie (1999) forecast that selective users will be allowed selective access. Abu Al-Azm (2001), in the Saudi environment, agreed that Internet financial reporting will meet users' needs and provided more information than hard copy. However, existing research seems to indicate that this use of the Internet for financial reporting has so far been limited.

4.4.1.6 Downloading:

One of the unique benefits of Internet technology over hard copy reporting is in future downloading (Rowbottom et al, 2005; Fisher et al, 2004; Gowthorpe, 2004; Adams and Frost, 2003; Xiao et al, 2002b). The main benefits of downloading are that users have the chance to download the information they need at very low cost, enabling them to use this information at a time and in a way which is convenient and then analyse it further.

4.4.1.7 Other languages:

Since the main objective for most companies in developing a website is to attract investors, either domestic or foreign, to read information about them. Internet enables the information provider to deliver bilingual financial information at low cost. Gowthorpe and Amat (1999), for example, found that 28 (46%) of the total sample offer information in Spanish and also English and Hedlin (1999) found that 80 of the total sample provide information in English.

4.4.2 Disadvantages of Internet financial reporting:

Notwithstanding the advantages of Internet reporting, it entails many problems. Some of these exist already and are likely to be exacerbated by the Internet. The literature points to a number of disadvantages of the Internet as a communication and reporting medium, such as boundary problems, information overload, integrity, security and confidentiality, reliability, accessibility problems, regulatory issues (Khadaroo, 2005; Jones and Xiao, 2004; Fisher et al, 2004; Adams and Frost, 2003; Bureau, 2003; Debrency et al, 2002; Xiao et al, 2002; Hodge, 2001; Carey and Parker, 2000; Xiao, 2000; Trites et al, 1999; Hill, 1999; Baldwin and Williams, 1999; Bury, 1999; Aoun, 1998; and Upton, 1998; Debrency et al, 1998; Hussey et al, 1998; Flynn and Gowthorpe, 1997). Carey and Parker, 2000 and Adams and Frost, 2003, for example, reported that the gap between the information available and users' ability to use it effectively is huge and growing. In this respect, the next sections will discuss in detail the disadvantages of Internet financial reporting.

4.4.2.1 Boundary problem:

One of the greatest advantages of a hard copy report is to create obvious, tangible, physical boundaries for financial information (Hodge, 2001), whereas the boundaries of Internet financial information are not at all obvious; investors can move easily between pages and countries at the click of a button (Debrency et al, 1998; 2002). Moreover, users are familiar with the layout of a hard copy package. By contrast, Internet financial reporting makes it complicated for users to know where the boundaries of the information lie. As a result, Internet reporting could mislead unsophisticated users (Trites et al, 1999; Hill, 1999; Flynn and Gowthorpe, 1997).

The boundary also creates a number of problems. One of the main ones is that whether companies should be allowed to include any hyperlinks in their Internet financial reporting. If so, most probably, there is a need for some means for users to distinguish between audited information and unaudited and also distinguish between information required by GAAP for that link and other information (Hodge, 2001). Xiao (2000) also asserted that at the national and

international level, there may be problems for regulators. The non-regulated nature of the Internet can make it difficult to control the context in which information is used, and for users to distinguish the quality of information accessed from different sources (Hussey et al, 1998). Moreover, it becomes increasingly difficult to distinguish between audited and non audited reporting (Bury, 1999; Flynn and Gowthorpe, 1997). In addition, boundary issues may have implications for the reliability of the information and it may provide opportunities for fraud and fake sites to be set up (Fisher et al, 2004). In turn, these can give rise to security and trust issues (Xiao et al, 2002). In addition, the link of information raises the issue of whether the information being linked is current and up to date (Trites et al, 1999).

Trites et al (1999) made some recommendation for dealing with the boundary problem. First, including citations on the site which explain the information there and show how it is maintained to inform users of the extent of the issues. Second, developing new standards of presentation. This standard will cover such issues as when hyperlinks are authorized and what information could be linked to the financial statement. Third, having a service similar to Web Trust, which would add some assurance to the site. Web Trust evaluates a website to confirm that the website follows Web Trust principles and criteria for business-to-customer electronic commerce. Finally, a possible solution to the boundaries issue is to put up electronic signposts which users will encounter when they activate certain hyperlinks. These are basically screen displays to tell users when they are about to leave the established boundaries of information or when they are leaving the home server. It has been suggested that a background colour or border could be used to distinguish the document or the audited from the unaudited information (Trites et al, 1999).

Fisher et al (2004) and Khadaroo (2005) also suggest that audited and unaudited information can be distinguished in a number of ways. First, by the use of labelling, borders or watermarks to mark off audited from unaudited information. Second, by displaying intermediate pages when entering and leaving audited sections of the Website, to warn users that they are changing zones. Third, by using a special file format for audited information, such as

Acrobat's PDF. Finally, by applying a digital signature to the annual report, which will indicate the area of the Website which has been audited; or by placing all audited Web pages on the auditor's website.

4.4.2.2 Information overload:

The ability of Internet technology to provide huge amounts of financial information, more frequently and with multi-dimensional data, at low cost, in an unstructured format, are all factors likely to contribute to financial information overload (Xiao et al, 2002a; Xiao et al, 2002b). The hyper-linking functionality and the resultant boundary problems will also contribute to overload problem (Jones and Xiao, 2004; Trites et al, 1999). Debrency et al (1998) reported that users may be overloaded with data and find it extremely difficult to find specific information and navigate through the Web. Bureau (2003) found that web designers failed to meet the needs of users in terms of site design, usability and content. Jones (2003) in his international survey of 100 companies concludes that web usability needs more attention in terms of navigation, formatting and archiving.

However the Internet itself also provides solutions to its own problems. More specifically, hypertext technology, search engines and intelligent agents will help to alleviate overload problems (Baldwin and Williams, 1999; Aoun, 1998; and Upton, 1998). Khadaroo (2005) believed that the Internet lets a huge amount of information be produced and also supplies sophisticated search and navigation tools to help alleviate information overload. Thus, including efficient search tools within a website and a table of contents can help users find related information.

4.4.2.3 Data Reliability, Integrity, and Confidentiality:

Users of online reporting are entitled to rely on the Web when information is passed on. However, most companies do not consider the procedure of dissemination on the Web as they do hard copy (Trites, 1999). Online reporting may be out-of-date (Lymer, 1998), or selectively presented (Hussey et al, 1998; Lymer, 1998; Gowthorpe & Flynn, 1997) or misleadingly presented by using

hyperlinking (FASB, 2000). Hodge (2001), for example, conducted a study to compare the hyperlinking effects on investor classification of audited and unaudited financial statements. In Hodge (2001) survey 47 graduate business students participated as potential investors to examine investors' perceptions about hyperlinking inside an audit report. Hodge (2001) specifically investigated whether hyperlinking leads investors (1) to misclassify unaudited information as audited; (2) by a hyperlink, to affect the credibility of the unaudited information; and (3) to judge a firm's earnings potential to be higher than if they had seen the same information in a hardcopy (paper) format. The results revealed that participants misclassify unaudited information as audited and vice versa (37 percent of the unaudited items as audited and 22 percent of the audited items as unaudited). This writer also found that participants using a web will judge the firm's earnings potential as higher than will participants in the hard copy report. The same result was confirmed in a study by FASB (2000) which states that "a company may inadvertently give visitors the impression that all information provided in another website to which the website is linked is afforded the same level of accuracy and reliability". Pike and Lanis (2003) conducted a similar study to Hodge's and reported a similar result when a firm mixed audited information with unaudited information in their website; it increased the perceived credibility of the unaudited information.

Moreover, Internet financial reporting is more likely to be subject to change, unless good security precautions are taken to prevent unauthorised changes (Jones and Xiao, 2004; Hussey et al, 1998). By contrast, hard copy reporting will in general stay the same, even though there is some scope for forgery and alteration (Hussey et al, 1998). For this reason, there is a need to ensure accuracy and completeness of data, because managers may manipulate information in misleading ways using Internet reporting (Hussey et al, 1998). It should also be ensured that there is no unauthorised or inappropriate incomplete data and that no unauthorised or inappropriate changes are made (by third parties such as hackers) (Jones and Xiao, 2004; Xiao, 2000; Trites et al, 1999). In addition, Internet sites can change without notice (Fisher et al, 2004). How can investors and financial analysts be sure that the digital version of an annual report and auditors' reports found on the web is identical to the

hard copy report and that the auditor's report and/or opinion refers to the sites currently accessed by users? (Jones and Xiao, 2004; Stevens and Ashbaugh, 1999; Westarp et al, 1999). Westarp et al (1999) suggested that a digital signature is one solution for the authenticity and integrity problem of Internet-based annual reports. Debreceeny and Gray (1999) asserted that the courts and government regulatory bodies need to develop standards to address these problems. Khadaroo (2005) suggested that to improve the data integrity, security and confidentiality, the annual report should be hosted on the auditor's website to make any unauthorised change more difficult.

Furthermore, the Internet makes it possible for companies to provide information on a timely basis and more frequently. Nevertheless, with increased timeliness there is a possibility of less reliability (Hussey et al, 1998; and Flynn and Gowthorpe, 1997). Users are concerned whether online reporting has come from a valid source and whether it is an accurate reflection of the facts. To tell the truth, most companies do not regularly maintain their online information (Fisher et al, 2004). Therefore, information on the web can be outdated and irrelevant (Baker, 2000 and FASB, 2000).

4.4.2.4 Access problems:

While Internet financial reporting can undoubtedly confer benefits, it also has some disadvantages relative to hard copy-based corporate reporting. Adams and Frost (2003) summarised the main accessibility problems; first, in an electronic environment, specifically the Internet, the information could be displayed on the Internet but users might never receive it. Second, the information could be displayed and deleted, with no record being kept that it had been disclosed. Third, not all users have the same access to information that they would have with other media, such as a hard copy report, since not all investors have access to the Internet or may wish to receive information in electronic form. Finally, not all users have the ability to save the information for future reference because some Internet reporting uses complicated technology.

4.4.2.5 Regulations:

At present, Internet financial reporting on a firm's website is mainly voluntary and unregulated in most countries (Jones and Xiao, 2004). The global accessibility of financial reporting on the Internet and the absence of a global regulator have possible implications for groups with interests in financial reporting, such as financial information preparers, users, auditors and regulators (Bagshaw, 2000). There are no regulations or official organisation which either require or forbid companies to disclose any specific data on a website (Ettredge et al, 2001). As a result, online reporting is largely discretionary. The main effects of unregulated problems are technological or non-technological (Fisher et al, 2004). A major technological cause is the decentralised and global nature of the Internet (Fisher et al, 2004). Another technological reason is that Internet reporting will become more sophisticated (Debrenceny and Gray, 1998). More, the fact that preparers can distribute information to users unnoticed by regulators makes things difficult for regulators (Jason, 2000). Thus it is difficult to impose regulations on Internet reporting. Finding specific information on the Internet is made more problematic by the deficiencies of some web language, such as hypertext markup language (HTML), variable data formats and inefficient search engines (Jason, 2000; Debrenceny et al, 1998). Moreover, the extensive use of hypertext creates difficulties in distinguishing between different categories of information (Jason, 2000).

Little attention has been paid to non-technological factors (Fisher et al, 2004). The disclosure of financial statements on a web page adds to the risk that information will be presented outside the GAAP financial statements but which is consistent with them (Trites et al, 1999). This is an important issue which needs to be dealt by setting standards (Trites et al, 1999). Moreover, standard projects need to deal with hyperlink issues and auditors' responsibility (Fisher et al, 2004). Moreover, a GAAP financial statement has focused on issues relating to measurement and recognition in periodic reports and the fact that reporting has developed around quarterly and annual reports (Fisher et al, 2004). However, in the web reporting environment, this emphasis on periodicity need

to change as a result of moving from periodic towards a more continuous stream of information (Fisher et al, 2004).

Debrency and Gray (1996) raised the question of authenticity and credibility of financial information disclosed on the Net. This is a matter of concern because to date there is little or no guidance on the use of the net for disclosing corporate financial information. Koreto (1997) said that guidance is necessary to resolve the issues of security and demarcations between the statutory financial statements and information published online. Different companies have different policies and practices on the use of the Net for financial reporting purposes; there is already a problem of non-standardised information about the amount of data supplied and its presentation (Fisher et al, 2004). Debrency et al in (1998), argue that the unstandardised nature of accounting terminology is the most important reason why users cannot locate specific financial information and it is difficult to impose regulations on Internet reporting. Poor or creative web page design also causes problems (Xiao et al, 2002a; Xiao et al, 2002b).

Nevertheless, major regulators' organisations such as the Toronto Stock Exchange in Canada, the Securities and Exchange Commission (SEC) in the US, and Companies House in the U.K., have developed large scale databases: EDGAR, SEDAR, and Companies House Direct, which allow electronic filing and retrieval via the Internet. For example, in the U.K. under the Companies Act (Electronic Communications) Order, limited companies have to publish an annual report and all the necessary reports on a company Website within 4 months of the year's end (DTI, 2002). A similar regulation exists in the US, where the SEC has mandated the posting (or linking) of useful ownership reports on insider transactions (see S.E.C., 2003). In Australia, AGS 1050 states that the responsibilities of the auditor and management do not change with respect to electronic presentation (AARF, 2002). In developing countries, China's listed companies have been required since 2000 to provide full annual and interim reports, and prospectuses to the official website of the CSRC (<http://www.csrc.gov.cn>), The Shanghai Stock Exchange (www.sse.com.cn), and the Shenzhen Stock Exchange (www.cninfo.com.cn) (Xiao et al, 2004).

In the Kingdom of Saudi Arabia, Tadawul (see Chapter 2 for more details) has been developed by the Saudi stock market (www.tadawul.com.sa) to collect financial statements from Saudi public companies electronically and to disseminate them via the Internet (Saudi Stock Market, 2005). Since 2001 the system requires all publicly owned companies to electronically submit files containing a summary of basic information such as their annual report (Saudi Stock Market, 2005). The main purpose of this regulation is to increase the efficiency and fairness of the securities market for the benefit of investors, corporations and the economy. The system also provides timely information on stock prices and other corporate news. These do not contain features for managing corporate investor, customer, and employee relations.

In conclusion, the above sections have reviewed the advantages and disadvantages of Internet financial reporting (IFR). The review showed the extreme importance of IFR, despite its problems. The following sections discuss the possibility of Internet reporting models.

4.5 Types of Internet reporting:

One of the main goals of accountants is to provide financial information in some summarised format which will be understood by users (Wallman, 1995). In the process of providing information, some of it is filtered out, on the basis of its importance. This function will be radically changed with Internet reporting (Xiao et al, 2002a). Accountants may spend much more time determining the needs of users and finding ways to meet these needs to develop customised reports. The new environment will make it easier to present much more current and even prospective information (Flynn and Gowthorpe, 1997). The following sections will discuss the possibility of Internet reporting models.

4.5.1 Continuous reporting:

The Wal-Mart system, for example, allows the updating of accounting reports for internal decision-making purposes on a real-time basis. In a broad sense, continuous reporting simply involves something more than reporting on a regular basis (Xiao et al, 2002a).

4.5.2 Corporate dialogue:

The idea of interactive reporting has been referred to as the "Corporate Dialogue Concept" (Spaul, 1997, 17). Spaul stated that

"today's corporate reporting is in need of radical change if it is to meet the challenge of the global digital economy and realise the potential offered by technology. Participants in corporate dialogues would include preparers of financial information, users, and the intelligent software agents. Reporting with the dialogue concept will be interactive rather than unilateral. It will be dynamic rather than static".

In addition, many companies already use the web for corporate dialogue through Frequently Asked question (FAQ), email addresses, conference calls, chatting with investors and similar means to communicate with users of information.

4.5.3 Checklist model:

Within the annual report there are several hundred items of information surrounding the audited financial statements, together with their footnotes, statistical summaries and a growing use of graphics, animation and photographs (AAA, 1966). Browsing (especially for unsophisticated users) through this breadth of disclosure is likely to absorb more time and result in only incidental information acquisition (Jones and Xiao, 2004). Thus, a checklist strategy, which might be based on a user identity information need, would help users to more quickly identify critical information essential for their decision-making (Courtis, 2000; Whittington, 1989;). Beattie (1999) recommends a template approach, with reporting companies presenting and pre-packaging information for different users.

4.5.4 Layers (colourized) model:

Willman (1996) described the layers model as refining the current disclosure system by adding new sets or layered information. In the layer model, the primary focus is on providing information which is relevant and highly useful as opposed to deciding whether certain information should be included in financial statements (Spaul, 1997). Beattie (1999) in this regard suggests a layered

reporting structure. Thus, the layer model will provide end-users with a far better sense of the quality of the information upon which they are basing their decisions (Xiao et al, 2002b). The layer approach would also promote the disclosure of information which is not recognised under the current system of financial disclosure – including information relating to intangible assets and other difficult values (Xiao et al, 2002b). This could be addressed in a manner similar to the procedure used for internal purposes (Wallman, 1997).

4.5.5 Access to raw data:

Internet will provide users with free access to company databases and let them drill down to the level of data they require in a disaggregated format. Wallman (1999) expected that users will be able to get free access to corporate databases with Internet technology and manipulate it for further analysis with the same technology. Similarly, Spaul (1997) believed that Internet technology will reduce the gap between the financial information available for internal purposes (management) and the information available to external users.

Nevertheless, Jones et al (2000) believed that raw data were unlikely to be released outside the company, even though it is technologically possible in theory. It also is fair to say that companies do not make all their raw accounting information available to their own employees, let alone their investors (Jones et al, 2000). In addition, raw data are considered more acceptable for sophisticated users but unsophisticated users would not know what to do with the data or how to access them in a meaningful manner (Jones et al, 2000). Finally, most raw data are accompanied by query languages, such as Structured Query Language (SQL), but many users would not know how to use SQL effectively (Jones et al, 2000).

4.5.6 Mass customization around a standard report:

Under this model, financial reporting maintains information comparability and satisfies users' common information needs (Xiao, 2000). An example of mass customization around a standard report is to provide financial reporting in multiple currencies, multiple GAAP, multiple languages, alternative

measurements, alternative accounting methods and alternative media (Xiao, 2000).

In summary, this section has reviewed previous studies identifying the possibility of using different Internet reporting models. The next sections attempt to describe some of the alternative Internet reporting models provided by the major accounting organisations.

4.6 Alternative reporting model suggested by major accounting organisations :

Several alternatives have been, or are being, put forward by the major accounting organisations which serve to supplant, or modify, the current Internet reporting models. These models illustrate how a company might use the Internet to respond to the information needs of investors and creditors. They are outlined in the following paragraphs.

4.6.1 FASB (FAUXCOM Inc.) MODEL (USA):

In mid-1998 FASB introduced an experimental website showing model financial information for a fictitious company (FauxCom Inc). The FASB website uses Hypertext to display the information and, therefore, includes hyperlinks for navigation (FASB, 2002). For example, the presentation allows users to access the balance sheet and then click a hyperlink from individual items to the notes to the financial statements. The first click on the inventory leads to the accounting policies note, which includes other links labelled "more" to take users to notes on details of the inventory and related links (FASB, 2002). The site, which shows the recommendations of the Jenkins Committee, can be implemented on the Web.

4.6.2 The 21st century annual report (U.K.):

The Institute of Chartered Accountants of England and Wales introduced a financial reporting model using information technology as a vehicle of delivery (ICAEW, 2004). The model includes various views of the information, depending on the type of users. The user selects the view of interest and then

moves to an array of information, where drill-down techniques provide increasingly detailed information (ICAEW, 2004). At a certain point, as the user moves more deeply into the data, it is necessary to enter an ID and password obtainable from the company. The model shows how users can customize their reports.

4.7 Conclusion:

In summary, this chapter has offered a review of empirical studies investigating the current level of IFR. These studies show mixed results although most of the studies have the same objectives. This mix of results may be due to the different sampling techniques, different statistical analyses, and different countries where the studies were conducted. The review also showed the advantages and disadvantages of IFR and reviewed some alternative IFR models.

Above findings revealed that the Internet has become increasingly important to companies, not only for marketing purposes, but also for financial purposes. The next chapter attempts to answer questions about the ways in which companies use their website? What is the content of company websites? What types of information do they provide and how?

Chapter 5: IFR Disclosure and Factors Influencing Disclosures

5.1: Introduction:

The previous chapter showed that the Internet has become increasingly important to companies, not only for marketing purposes, but also for financial purposes. Thus this chapter attempts to answer questions about the ways in which companies use their website to provide Internet financial reporting (IFR)? What is the content of company websites? What types of information do they provide and how? Previous studies – Hedlin (1999), IASC (1999), Ashbaugh et al (1999) and FASB (2000), Jones and Stanwick (2001), Geerlings et al (2003) and Abdelsalam et al (2006) – provided frameworks to illustrate the dimensions of IFR (to answer the above questions). Hedlin (1999), for example, divided IFR into three stages. The first stage is the Internet presence. In this stage, Hedlin (1999) claimed that companies focused on the customer rather than the investor. The second stage uses the Internet to communicate investor information. In this stage, companies provide electronic versions of hard copy annual reports and some sort of non financial information. Finally, in the third stage, a company uses the specific advantages offered by the Internet, such as hyperlink and download facilities.

IASC (1999) also described three stages of investor relations on the Internet. In the first stage, firms use the web as another distribution channel for their hard copy reports. In the second stage, firms used some web features to make IFR easier to read. Finally, in the third stage, firms expanded information disclosure to include more financial and non financial information, as required by users. Ashbaugh et al (1999) considered companies as engaging in IFR if they provided one of the following; first, a comprehensive set of annual reports; second, a link to their annual report elsewhere on the Internet; third, a link to the US Security and Exchange Commissions (SEC) filing. FASB (2000) described two main components of IFR, content and presentation. The content element is comprised of a variety of corporate information, financial and non financial. The presentation element means that interactive tools are provided to enhance annual reports, such as HTML or Adobe Acrobat technologies, hyperlinks, animated graphics, interactivity and downloadable spreadsheets. Jones and

Stanwick (2001) identified three stages based on the IASC (1999) and FASB (2000) studies. In the first stage, firms provide only electronic versions (manly scanned or PDF format) of the hard copy report, in an effort to increase the accessibility and speed of distribution of their financial information. The second stage has similar goals to the first stage, but firms take additional time and effort to convert hard copy reports to HTML language, which increases the user's interactivity with the information. The third stage finds firms using more features of the Internet (e.g. downloadable spreadsheets and video/audio clips). Geerlings et al (2003) described five stages of investor relations on the Internet. The first three are almost wholly based on the ideas of Hedlin (1999); the last two are direct contact via e-mail and mailing lists and using video or audio recordings to allow investors to listen to online meetings.

Abdelsalam et al (2006) described two main component of IFR (content and usability). The content element refers to what information is disclosed on the website. In Abdelsalam et al (2006) the content element includes two types of items; general content (19 items) and credibility (55 items). Examples of general content items included in Abdelsalam et al (2006) study are: balance sheets, company background and frequently asked questions (FAQ). Abdelsalam's et al credibility content items (2006) include those related to the timely presentation of information, such as the disclosure of time lags in updating various items online, corporate governance, such as names and contact information for corporate directors, or audit opinion, with a clear boundary between audited and unaudited information. Abdelsalam's et al credibility content items (2006) are selected on the basis of Primer's (CP 2003) and Mercer's (2004) definitions of credibility. In regard to usability items, Abdelsalam et al (2006) defined usability (69) items as those relating to website design and assessed how easy is it to navigate the site and locate information, for example, with navigation buttons which are easy to see and use, hyperlinks which change colour when visited and built-in search features.

The present study identifies two stages of Internet financial reporting (IFR: content (general content and credibility) and usability, based on the above

discussion, in particular the study by Abdelsalam et al (2006). The following two stages are defined.

5.2. IFR content:

In this stage, the content element refers to what information is disclosed on the website (including general content and credibility). Content items selected are based on the definitions of content in Abdelsalam et al (2006); the Investor Relations Society (IR) (2006); Marston and Polei (2004); Xiao et al (2004); Ettredge et al (2002); and Ettredge (2001).

5.2.1 General content:

As mentioned above, content element refers to what information is disclosed on the website. General content elements include two types of information, financial and non financial. In 2006, the Investor Relations Society (IR) identified the prime guidelines which any good website should adopt to provide useful financial information. Key points to include are: important financial information (e.g. balance sheet, income statement and statement of cash flow).

Moreover, the guide by the Investor Relations Society (IR, 2006) suggested that each company website should disclose other non financial information online. Examples of non financial information requested by IR (2006) and examined in previous studies are: company background, products and services profile, investor information section, shareholder information, press releases, search engines, tables of contents and frequently asked questions. The following paragraphs summarises the previous research findings about websites' general content. It should be noted that all percentages reported are based on the total number of companies in the sample.

5.2.1.1 Financial information

In respect of financial information, USA companies were amongst the first to provide financial information on the Internet. In 1997, 50% of the largest 100 companies in the Fortune Global list offered their balance sheet on the Internet (Flynn and Gowthorpe, 1997). In 1999, more USA companies (95%) offered

balance sheets than did the UK (74%) and Germany (65%) (Deller et al, 1999). Two years later, Ettredge et al (2001) found that 64% of USA companies provided a balance sheet. Geerlings et al (2003) revealed that balance sheets statements were reported more often in France and the Netherlands than in Belgium (Belgium: 92%; Netherlands and France: 96% each). In 2004, Marston and Polei (2004) found that 98% of German companies provided a balance sheet. In developing countries, a balance sheet was provided by 16% of Bahraini companies (Joshi and Al-bastaki, 2000), 44% of Chinese companies (Xiao et al, 2004) and 65% of Malaysian companies (Khadaroo, 2005). In international studies, IASC (1999) found 36%, FASB (2000) found 69% and Allam (2006) found 97% provide balance sheet.

Regarding income statements, Flynn and Gowthorpe (1997) found that 39% of the largest 100 companies in the Fortune Global list offered their income statement on the Internet. In 1999, a higher percentage of USA companies (95%) offered an income statement than in the UK (75%) and Germany (63%) (Deller et al, 1999). Ettredge et al (2001) revealed that 72% of US companies provided income statements. Geerlings et al (2003) found that income statements were reported more often in France and the Netherlands than in Belgium (Belgium: 92%; Netherlands and France: 96% each). One year later, 98% of German companies offered income statements (Marston and Polei, 2004). In developing countries, Joshi and Al-bastaki (2000) found that 46% of Bahraini companies, 44% of Chinese companies (Xiao et al, 2004) and 62% of Malaysian companies (Khadaroo, 2005) provided income statements. In international studies, 37% were found by IASC, (1999), 65% by FASB (2000) and 97% by Allam (2006) provide income statements.

In regard to cash flow statements, Deller et al (1999) found that a cash flow statement was provided more in the USA (92%) and in UK (64%) than in Germany (30%), but 98% of German companies were providing cash flow statements in 2004 (Marston and Polei, 2004). Geerlings et al (2003) found that a cash flow statement was presented more often in the Netherlands (96%) than in France (78%) and Belgium (58%). In 2006, Abdelsalam et al found that 99 percent of companies listed on the London Stock Exchange offered their cash

flow on the Internet. In developing countries, the percentage offering cash flow statements ranged from 31% in Bahrain (Joshi and Al-bastaki, 2000) to 60% in Malaysia (Khadaroo, 2005). A study by IASC (1999) indicated that 28% of companies used the Internet less extensively to present their cash flow statement in comparison with FASB's finding of 65% (2000) and Allam's of 96% (2006).

In regard to summaries and/or highlighted financial information, previous studies in developed countries show that 32% of Finnish companies (Lymer and Tallberg, 1997), 17% of UK companies (Gowthorpe, 2004), only 10% of New Zealand companies (Fisher et al, 2004) and 65% of Irish companies (Smith and Peppard, 2005) provided a summary and/or highlighted financial information on their websites. In 2006, Abdelsalam et al found that only 6 percent of UK companies offered a financial snapshot section. Empirical research in developing countries shows that 18% of Saudi companies provide highlighted financial information (Abu Al-Azm, 2001) and 41% of Malaysian companies do (Khadaroo, 2005). In international studies, the IASC (1999) reported that 38% of their sample provided summary and/or highlighted information on the Internet and there was 73% in the FASB sample (FASB, 2000). Selective accounting information was disclosed by the majority of companies in the three countries surveyed (Belgium: 92%; France: 94%; the Netherlands: 100%) (Geerlings et al, 2003); while Deller et al (1999) found that selective accounting information was less common in three other countries (3% US, 14% UK, 21% Germany).

Previous studies also show that disclosure of management reporting ranged (in developed countries) from 52% in USA (Ettredge et al, 2001) to 100% in Germany (Marston and Polei, 2004). In developing countries, disclosure management reporting ranged from 69% in Malaysia (Khadaroo, 2005) to 70% in China (Xiao et al, 2004). The International Accounting Standards Committee (IASB) in 1999, examined the current level of Internet reporting around the world. Among 660 companies, the study found that only 18% provide a management report. One year later, the FASB (2000) reported that 57% of their sample provided management discussion and analysis and Allam (2006) found

a great majority of his sample (95%) makes management discussion available online.

In respect of the dissemination of segmental reporting, Marston and Polei (2004) found that 95% of German companies provide segmental reporting by line of business and 80% by region. In 2006, Abdelsalam et al found that 89 percent of companies listed on the London Stock Exchange includes segmental information on the Internet. In developing countries, almost 70% of Chinese companies provide segmental reporting by line of business and 69% by region (Xiao et al, 2004). In the international environment, segment reporting was provided by only 17% of the IASC's sample (1999) and 85% of Allam's sample (2006).

In regard to offering financial information in alternative formats such as presenting it using accounting conventions or formats from other countries (GAAP), Xiao et al (2004), for example, found that only 6 percent of their sample offered financial information in alternative GAAP. In respect of providing financial information online in alternative currencies, Abdelsalam et al (2006), for example, found that only 10 percent of their sample offered financial information in alternative currencies and almost the same percentage (10%) offered exchanges or links to a currency converter site. In relation to financial information, Abdelsalam et al (2006) found that only 21 percent of their sample offered explanations of difficult financial terminology.

In terms of changes in shareholders' equity statements, more companies in Germany (89%) (Marston and Polei, 2004) and China (69%) (Xiao et al, 2004) used the Internet to make statements about changes in shareholders' equity than in US (27%) (Ettredge et al, 2001) or in Malaysia (47%) (Khadaroo, 2005). Only 15% of the IASC (1999) sample placed their statement of changes in shareholders' equity and 61% of the FASB sample (2000).

5.2.1.2 Non financial information:

In 2005, Dillon claimed that a good website should provide a section about the company ('About us') to keep investors up to date with news about the company, its strategy and operating environment. Empirical studies found that most companies in developed countries offer company background information on their homepages. Brennan and Hourigan (1998), for example, reported that 84% of Irish companies disclosed company background information while 94% of New Zealand companies did (Oyelere et al, 2003). In developing countries, 96% of Malaysian companies (Khadaroo, 2005) offered background information. Results of international studies were in the middle (41%) for IASC (1999) and 64% for FASB (2000). A study by FASB (2000) indicated that a third of their total sample still used the Internet less extensively than Allam's figure of 71%, as regards presenting their vision statement.

Disclosure of products and services profile in the company website was more common in previous studies, for example, 80% of Irish companies (Brennan and Hourigan, 1998), 99% of New Zealand companies (Oyelere et al, 2003), 74% of Malaysian companies (Khadaroo, 2005) and 83% of the FASB sample (2000) used their website to provide information about their products and services. Another advantage of the Internet is the option to sell goods and services online. In developed countries e-commerce ranged from 24% in New Zealand (Oyelere et al, 2003) to 32% in Germany (Marston and Polei, 2004). In Malaysia almost a third (32%) offered sales online. In an international study, FASB (2000) found that 47% of their total sample offered the option of selling goods and services online. Online investor information order services were more common in Germany (46%) than in the UK (22%) and the US (16%) (Deller et al, 1999).

In terms of information about shares, Ettredge et al (2001) found that only 14% of USA companies provided a discussion of the advantages of holding stock online and 21% in the sample of Ettredge et al (2002). Information about the company's stock transfer agent (e.g. address, phone and link) were found in 42% of the sample by Ettredge et al (2002) in 2001 and in 37% in 2002. In respect of the annual general meeting (AGM), Marston and Polei (2004) found

that 84% of German companies provide an agenda and notice online of the annual shareholders' meeting and 57% provide the voting results of the AGM. Marston and Polei (2004) also found that only 11% offered investors the chance to change data in the share register online and 70% provided information about shareholder structure. Xiao et al (2004) found that 72% of Chinese companies provide the names of the top 10 stockholders online. Two year later, Abdelsalam et al (2006) found that 93 percent of their sample offered detail regarding major shareholdings online, 61 percent offered information on how to buy stock, 75 percent provided information about market where company shares traded and 87 percent offered share symbols/codes.

In terms of share price performance, Marston and Polei (2004) found that 70% of German companies provide online share price performance in relation to stock market index. In the UK, Abdelsalam et al (2006) found that 85 percent of their sample offered an interactive share chart and 91 percent offered today's high/low share prices or percentage of change in prices. FASB (2000) reported that 47% of their sample provided share price performance and 38% proxy statements. Allam (2006) found proxy statements provided by 35%.

Providing a link to an investor relations section from the first page was offered by 22 percent of the FASB (2000) sample, while a link to the home page from the annual report was found in 65 percent overall (84% USA, 85% UK, 64% Canada, 81% Australia, 10% Hong Kong) (Allam, 2006). Marston and Polei (2004) found that 91 percent of German companies offered a hyperlink from the first page to investor relations information. Smith and Peppard (2005) reported almost similar results (86%) in a different country (Ireland). In 2006, Abdelsalam et al (2006) reported that 97 percent of their sample offered a link to the investor relations section and 95 percent of the investor relations links include the word 'investor' or 'financial' or something similar. Xiao et al (2004) found a lower result (59%) for Chinese companies which offered a hyperlink from the first page to the investor relations section. Allam (2006) found that various percentages in the surveyed countries (92% USA, 76% UK, 90% Canada, 82% Australia, 80% Hong Kong) offered a hyperlink from the first page to the investor relations section.

Most previous studies found that press releases were a common feature on the homepages. 82% of Swedish companies provide press releases online (Hedlin, 1999), 81% for the US (Ettredge et al, 2002) and UK (Gowthorpe, 2004), 100% for Germany (Marston and Polei, 2004), 93% for Ireland (Smith and Peppard, 2005). In the UK, Abdelsalam et al (2006) reported that 99 percent of their sample offered press releases online. Disclosure of press releases online are less common in developing countries than in the developed world. 60% of Chinese companies provide press releases online (Xiao et al, 2004) and 53% of Malaysian companies (Khadaroo, 2005). In international studies, FASB (2000) found that more than 50% of companies (62%) provide press releases and (99%) of Allam's sample (2006) provided press releases.

Providing a search engines facility on a corporate website differed between countries. Deller et al (1999) found that internal search engines were offered more often in the USA (71%) than the UK (33%) and Germany (42%). One year later, the FASB study reported that 63% of their sample provided search engines (FASB, 2000). In 2003, Geerlings et al concluded that search engines were more frequently provided by French and Dutch companies than Belgian companies on their home pages (France: 66%; the Netherlands: 64%; Belgium: 48%). In 2006, Abdelsalam et al found that 67% of their sample offered an internal search feature. In developing countries, search engine facilities were offered by 23% of Chinese companies (Xiao et al, 2004) and 55% of Malaysian companies (Khadaroo, 2005). In a recent study, Allam (2006) found in his sample (86% USA, 82% UK, 66% Canada, 64% Australia, 20% Hong Kong) offered a search engines facility on their home pages.

Regarding tables of content/site maps, Khadaroo (2005) mentioned that a user with a site map (Table of Contents) could go directly to any section. In 2000, FASB revealed that 87% of companies offered a table of contents. Most companies in Germany (77%) (Marston and Polei, 2004), 60% in Ireland (Smith and Peppard, 2005) and 71% of companies listed on the London Stock Exchange (Abdelsalam et al., 2006) offered a table of contents. Allam (2006) also reported that 74% in the USA, 52% in the UK, 74% in Canada, 60% in Australia and 55% in Hong Kong offered site maps. In developing countries,

site maps were offered by 31% of Chinese companies (Xiao et al, 2004) and 81% of Malaysian companies (Khadaroo, 2005).

Marston and Polei (2004) claimed that one of the advantages of reporting in digital form is that it offers the opportunity to let investors ask and clarify unclear information (frequently asked questions). A section on frequently asked questions (FAQ) was offered more in the USA (31%) than the UK (8%) or Germany (7%) (Deller et al, 1999). In the same year, Trites et al (1999) found that only 9% of North American companies provide FAQ. In other European countries FAQ was offered by France (40%); the Netherlands (46%); Belgium (20%) (Geerlings et al, 2003). One year later, Marston and Polei (2004) found 45% of German companies offered FAQ and Abdelsalam et al (2006) found only 48% of their sample did so. In China, Xiao et al (2004) reported that only 2% of offered FAQ on their websites.

5.2.2 Credibility Content:

Previous studies suggest that in financial reporting credibility matters (Williams 1996). In 1999, for example, the United Nations held a conference to discuss the East Asian Crisis. The United Nations Conference on Trade and Development (UNCTAD) identified the main factors of East Asian failures; they resulted from lack of transparency and accountability and a lack of appropriate disclosure requirements. Moreover, collapses of businesses such as Enron, WorldCom, Royal Ahold, Maxwell, BCCI, Tricontinental and HealthSouth, have together, drawn far greater attention to credibility in financial reporting. The following paragraphs review previous studies of credibility.

It may be worth defining credibility before doing so. Jones (2002) considered online financial reporting credible if disclosure was complete, verifiable, familiar to users, easy to find and interact with the disclosures and easy to use. Primer (CP, 2003) defined credibility as providing transparent, timely, full and fair disclosure. Mercer et al (2004) defended disclosure credibility as investors' perceptions of the believability of a particular disclosure.

In this respect, the International Federation of Accountants (IFAC), in 2003, conducted a study to rebuild public confidence in financial reporting. The study made ten recommendations, the main ones being as follows: there is a need to implement ethical standards in financial reporting, place greater emphasis on the effectiveness of financial management and controls, reduce unrealistic forecasts in financial information, improve boards of directors' supervision, regularly evaluate the performance of the chief financial officer (CEO), ensure that the board regularly evaluates its own performance and that of its individual members, give sufficient financial education and training to all interested entities, monitor and review the integrity of financial reporting and clarify the auditor's relationship with the company. IFAC also requested the disclosure of the following information; financial analysts prospects, lawyers' advice to clients on matters relevant to financial reporting, advice given to companies by investment banks, evaluation of credit-rating agencies; they also said that financial statements should be made easier to understand and more timely.

One year later, Colman (2004) on the same topic reported that, in order to enhance financial reporting credibility, companies should provide more information about: the management of organizational risk and narrative reporting; governance practices and structure; and regulatory compliance. Jones (2002) also identified five drivers to consider in improving the credibility of online financial reporting; completeness, verifiability, familiarity, responsiveness and ease of use. Jones (2002) suggested that, the credibility of IFR is measured, among other things, by its completeness. Partial information could lead to incorrect decisions. For corporate information to be complete, it must be accurate and of a high standard in terms of content and presentation (Jones, 2002).

Another important characteristic of the credibility of online financial information mentioned was verifiability. Verifiability means providing objective measurement, independent third parties and solid confirmation (Jones, 2002). The same recommendation was made by Coyne and Nielsen (2001). Coyne and Nielsen (2001) mentioned that a credible corporate website has links to external sources or articles from independent newspapers and magazines.

Moreover, Waller (2006) mentioned that links to relevant parts of the site or to external resources such as a regulator's website or auditor's website will improve the credibility of online financial reporting.

Third, for online corporate information to be credible, it should make it easier for the investor to understand the business, strategy and objectives and performance metrics (Jones, 2002). Online reporting provides the opportunity to achieve it in ways which are familiar to the investors (Jones, 2002). Finally, Jones (2002) mentioned that accountability and interactivity with stakeholders is a necessary condition of credible online reporting.

Regarding factors which affect credibility, Mercer et al (2004) reviewed previous accounting studies and identified the main factors influencing disclosure credibility: (1) situational incentives at the time of the disclosure; (2) management's credibility (i.e., competence and trustworthiness); (3) the levels of external and internal assurance and (4) the characteristics of the disclosure itself. First, situational Incentives (persuasion models) suggest that message credibility is influenced by disclosure motivation (Mercer et al., 2004). Mercer et al (2004) declared that management disclosures are less credible when management has a high incentive to mislead investors. Several studies provided support for this claim by comparing the credibility of disclosures of good and bad news (Hutton et al, 2003; Cairney and Richardson, 1999; Williams, 1996; McNichols, 1989; Hassell et al, 1988). These studies conclude that bad news disclosures are expected to be more credible to investors than good news disclosures.

On the second factor (management's credibility), Mercer et al (2004) stated that an important factor in a message's credibility is the credibility of the messenger. To test this argument, Hirst et al (1999) measured the credibility of different managements based on the credibility of the previous discloser (either very accurate or very inaccurate). Hirst et al (1999) confirmed that investors depend more on management disclosures if management has distributed accurate forecasts in the past. Libby and Tan (1999) and Tan et al (2002) report similar results. Libby and Tan (1999), for example, reported that managers who provide

warnings about unexpected earnings are judged to have higher integrity than managers who do not provide such disclosures. The same result was confirmed by Tan et al (2002). They found that managers who accurately forecast earnings are rated as more competent and trustworthy than managers who significantly overstate or understate earnings. However, Petty and Wegener (1998) mentioned that credibility of managers is one factor – but not the only one – affecting a disclosure's credibility.

On the third factor (the levels of external and internal assurance), Mercer et al (2004) claimed that external sources (e.g. auditors, financial analysts and journalists) or internal sources (e.g. the board of directors, audit committees and internal auditors) also affect a disclosure's credibility. Several studies examined the effects of external factors, such as audited disclosures, business journalists and financial analysts and found that audited disclosures are more credible than unaudited disclosures. Examples of these studies are those by Leftwich (1983) and Hodge (2001). Other factors, such as business journalists and financial analysts, confirmed this type of effect. Examples of such studies are those by Foster (1979, 1987), Gogoi (2001) and Barrett (2002). Several studies found that firms with more independent boards, audit committees and internal audits provide more credible disclosure (Xie et al, 2003; Black et al, 2003; Beasley 1996; Klein 1999).

On the fourth factor (the characteristics of the disclosure itself), it was found that additional factors include the characteristics of the disclosure itself. These characteristics include the disclosure's precision, venue and horizon, whether supporting information accompanied it and the inherent plausibility of the information disclosed. Various empirical studies found that investors perceive precise disclosures to be more credible than imprecise disclosures (Hirst et al, 1999; Baginski et al, 1993; King et al, 1990; Hassell et al, 1988).

In terms of venue of disclosure, Mercer et al (2004) reported that managers use different channels (venues) to disclose information, including audited financial statements, meetings with reporters, conference calls with analysts, annual shareholders' meetings and special press releases. For example, Mercer et al

(2004) claimed that face-to-face disclosures (e.g. conference calls) are more credible for managers who are already perceived as trustworthy, whereas written disclosures (e.g. press releases) are more credible for managers who are less obviously trustworthy. Psychological studies find support for this idea; for example, Andreoli and Worchel (1978), reported that television messages are a more reliable source for newscasters and written messages are more convincing for untrustworthy sources, such as political candidates. DeSanctis and Jarvenpaa (1989) claimed that participants made more accurate predictions of sales and expenses when they were presented with graphed financial information than when they were presented with the same information in numerical form. On the same topic, Moriarty (1979) compared the accuracy of subjects' bankruptcy predictions when they were provided with financial information in the manner of either or diagrams. He concluded that participants made more accurate bankruptcy predictions when using diagrams. Similar results were confirmed by Stock and Watson (1984). In 1990, Klammer and Reed conducted an empirical study to examine whether different formats for numerical presentation of accounting information affect decisions. Mainly, they examined whether the "direct" and "indirect" presentation of the cash flow statement, both of which are allowed under current accounting rules, affects commercial loan officers. They reported that participants who viewed the direct cash flow statement answered more correctly. However, to the best of the researcher's knowledge, few accounting studies have directly compared the credibility of Internet financial reporting with different channels of disclosure.

Hodge (2001), however, conducted a study to examine the effects of hyperlinking on investor classification between audited and unaudited financial statements. Hodge (2001) surveyed forty seven graduate business students who participated as potential investors to examine investors' perceptions about hyperlinking inside an audit report. He (2001) specifically, investigated whether hyperlinking leads investors to (1) misclassify unaudited information as audited; (2) affects the credibility of the unaudited information and (3) leads users to judge the firm's earnings potential to be higher than they would if they viewed the same information in a hardcopy (paper) format. The results revealed that participants misclassify unaudited information as audited and vice versa (37

percent of the unaudited items as audited and 22 percent of the audited items as unaudited). It was also found that participants using a website will judge the firm's earnings potential to be higher than will participants using a hard copy report. Thus the Investor Relations Society (2006) requested that the auditor's opinion should be clearly distinguished from what is not audited. Supplementary information should be also provided in an easy to understand format; it is not part of the annual report (Investor Relations Society, 2006).

Trabelsi et al (2004) also conducted a survey to measure website credibility by comparing the content, format and technology of Internet financial reporting (IFR) with that of financial information disclosed in traditional financial reporting (TFR). Their sample was based on a random 35 Canadian companies. Trabelsi et al (2004) found a significant difference between information produced in TFR and IFR (11 items out of 16) and concluded that participants using a website will judge the firm's financial position to be higher than if they were reading a hard copy report.

The time horizon is another factor which affected disclosure credibility (Mercer et al, 2004). Investors put more trust in immediate term disclosures (e.g. interim earnings forecasts) than long-term disclosures (e.g. annual earnings forecasts). This they deduce from supposing that managers have better information about more immediate outcomes. Pownall et al (1993), for example, found that stock price reactions to interim management earnings forecasts are greater than stock reactions to annual management earnings forecasts. Mercer et al (2004) also add that explanations of information provided by firms (e.g. unexpectedly positive earnings forecasts) should increase the credibility of a disclosure for the following reasons. First, most of this information is proprietary information, which is costly; hence, investors probably perceive costly disclosures to be more credible than others (Cairney and Richardson, 1999 and Gigler, 1994). Second, supplementary statements should increase disclosure credibility because managers thereby reduce their ability to take subsequent opportunistic actions to realize forecasts and to commit themselves to a specific way of reaching the targeted goal (Baginski et al, 2004 and Hutton et al, 2003).

Mercer et al (2004) further found another factor affecting the credibility of financial reporting. They (2004) claimed that there is a relation between a disclosure's credibility and investors' expectations or prior beliefs. For example, investors consider growth less credible if figures are negative in the previous three years' results (Mercer et al, 2004). Hansen and Noe (1998) find support for this idea. They conclude that the content of management's prior disclosures affects the inherent plausibility of its subsequent disclosures. One year later, Mercer (2005) conducted an experimental study to examine the factors which affect management's reporting credibility in both the short-term and the long-term, based on two theories (attribution theory and affect-based reasoning theory). Using attribution theory, Mercer (2005) proposed that in the short term management's reporting credibility will increase with more frequent disclosures, especially those related to negative news. In the long term, using reasoning theories Mercer (2005) proposed that investors' assessments of management's reporting credibility will be based on the previous firm's financial performance, especially if managers reported positively. Mercer (2005) found that, in the short term, more detailed disclosure has a positive effect on management's reporting credibility, especially when management is forthcoming about negative news ($p < 0.01$). In the long term, managers who report positive earnings news are rated as having higher reporting credibility than managers who report negative earnings news ($p < 0.01$), regardless of their previous disclosure decisions. Mercer (2005) also identified three factors affecting firm's disclosure credibility: accuracy, completeness and timeliness.

Abdelsalam et al (2006) further identify several influences on credibility, namely: audit opinion (e.g. a clear boundary between audited and unaudited information), corporate governance (e.g. names and contact information for corporate directors) and timely presentation of information (e.g. disclosure of time lags in updating various items online). Based on the above discussion, the next sections review the main credibility elements examined by previous research which might influence the credibility of Internet financial reporting. It should be noted that all percentages reported are based on the total number of companies in the sample. The following paragraphs will adopt the classification

by Abdelsalam et al (2006) of credibility items: audit opinion, corporate governance and timely presentation of information.

5.2.2.1 Audited and audit related information

Examples of auditing and auditing information examined in previous studies are auditors' reports, audit report highlights with relevant jurisdiction and providing warning message when entering/leaving the audited parts of an annual report. The following paragraphs discuss some of the most common audited and audit related items examined in previous studies.

In terms of auditors' reports, the proportion presenting these in developed countries ranged from 23% in North America (Trites et al, 1999) to 98% in Germany (Marston and Polei, 2004). Abdelsalam et al (2006) found that all 110 (randomly chosen) companies listed on the London Stock Exchange offered online audited financial statements accompanied by audit reports. In developing countries the range was from 3% in Saudi Arabia (Abu Al-Azm, 2001) to 50% in Malaysia (Khadaroo, 2005). Moreover, three international studies investigated the provision auditors' reports on the Internet. The proportion presenting an auditor's report were 17% for IASC (1999), 60% for FASB (2000) and 96% for Allam (2006). In addition, Smith and Peppard (2005) found that 42% of Irish companies provided information about legislation and regulation which might affect the corporate report.

In terms of hyperlinks inside annual reports, Deller et al (1999) reported that hyperlinks inside accounting data were more often found in the UK (38%) than in Germany (13%) and the USA (7%). In the same year, Hedlin (1999) found that 12% of Swedish companies used hyperlinks inside the annual report. Another study was carried out by Oyelere et al (2003), who found that 63% of New Zealand companies offered hyperlinks inside the annual report. In China, not one single company offered hyperlinks inside the annual report (Xiao et al., 2004). In 2006, Abdelsalam et al reported that 98% of their sample did not provide any hyperlinks to/from the audit report to information outside the audited financial statements and also no hyperlinks from/to audited financial statements to external unaudited websites or sections of the company website.

In terms of navigation aids which can help reduce the hyperlink problem, previous research claimed that the hypertext environment of the web can cause some users to become lost in hyperspace (see Chapter 4, above). That is, after clicking on several hyperlinks, users can forget how they reached a certain page and not know how to return to the point where they started. Nevertheless, previous research identified a variety of navigation aids which can help reduce instances of this. Background colour, for example, is the most common technique used to indicate to users that they going to another part of the corporate website or to third party sites. FASB (2000), for example, found that a variety of navigation techniques were used to let users know that they were still inside the annual report when they moved from page to page (e.g. 29% used colour or graphic borders, 21% used background colour or graphics and only 3% used a dialog box popping up to indicate that the user was leaving the annual report). In Germany, in contrast, Marston and Polei (2004) revealed that only 5% used clear boundaries between the annual report (audited) and other information. Smith and Peppard (2005) found that 56% of Ireland companies offer a clear indication when users move to another part of the corporate website or to third party sites. Moreover, Abdelsalam et al (2006) found that 98% of their sample used audit report backgrounds and/or borders consistent with those used in audited financial statements. Abdelsalam et al (2006) also found that 93% clearly labelled each page of audited financial statements "AUDITED", only 6% offered the audit firm's logo on the audit report, none of the sample offered a hyperlink from the audit firm logo to the auditor's website and none of them offered a warning message when entering/leaving audited annual report. In developing countries, 30% of Chinese companies provided clear boundaries for annual reports (Xiao et al, 2004) but no Malaysian companies warned users when they were leaving the audited pages (Khadaroo, 2005). Allam (2006) found that 68% in the USA, 86% in the UK, 73% in Canada, 56% in Australia and 6% in Hong Kong used some sort of technique to let users know that they were inside annual report. Furthermore, Abdelsalam et al (2006) reported that all their sample in their audit report highlighted which jurisdiction's GAAP and/or GAAS are/is relevant, Moreover, Abdelsalam et al (2006) found that only 5 percent of their sample provided a statement explaining

the control issues related to the approval of financial information on their website and website security.

In terms of auditor signature, previous studies show that none of the largest companies in the UK, France and Germany were proved to have an auditor signature (Debreceeny and Gray, 1999), but 63% of Chinese companies (Xiao et al, 2004) and 21% of Malaysian companies (Khadaroo, 2005) included scanned auditors' signatures. However, in 2006, Abdelsalam et al reported that almost 60% of their sample offered a scanned handwritten audit report signature online. Regarding international studies, Allam (2006) found that an auditor's signature was provided by 52% of his sample.

5.2.2.2 Corporate governance information

Examples of corporate governance information examined in this study are: a company's contact details, a link to a regulatory database, a link to security exchange websites, an audit committee profile and information on directors and executives.

In terms of a link to independent third parties, the Investor Relations Society (2006) reported that the prime guidelines of any good website should provide access to financial information in the third party (electronic filings). Previous research found that the provision of a link to the SEC site ranged from 20% (Ettredge et al, 2002) to 63% (FASB, 2000) and of a link to the EDGAR database from 15% FASB (2000) to 51% (Ettredge et al, 2002). In 2006, Abdelsalam et al found that 28% of their sample provided a link to the relevant stock exchange websites, but only 20% provided a link to a regulatory database (e.g. the EDGAR database) and 59% offered a link to press releases by an independent information provider (e.g. RNS/analysts/brokers news). Links to other useful websites were found in only 12% of North American companies (Trites et al, 1999). In Spain, Oyelere et al (2003) found that 33% of their sample provided links to other useful sites or provided useful articles. Geerlings et al (2003), overall, found that more than 80% of their total sample provided external links to third parties (Belgium: 82%; France: 86%; the Netherlands:

88%). Xiao et al (2004) found that only 7% of Chinese companies provide a link to stock exchange websites.

Regarding the issue of analysts following the company, FASB (2000) found that 16% of their sample provided lists of or links to analysts following the company or analysts' reports, 15% of USA companies did so (Ettredge et al, 2001) and more than a third (34%) of German companies (Marston and Polei, 2004). 45% of Abdelsalam et al's sample (2006) offered the online names of analysts following the company and only 22% offered a hyperlink to analysts' websites. Ettredge et al (2001) found that 42% of their total sample disclosed information about the company's stock transfer agent (e.g. address, phone and link) and this was offered by 37% of the sample by Ettredge et al (2002). Dividend policy was offered by 21% of Ettredge et al's sample (2001) and 37% of their sample in the following year. Dividend history was offered by 55% of Abdelsalam et al's sample (2006).

Disclosures about directors', executives' and audit committees' profiles were common in previous studies. In 1998, 26% of Irish companies showed directors' names online (Brennan and Hourigan, 1999) compared with 79% in 2005 (Smith and Peppard, 2005). Gowthorpe (2004) found that 42% of UK companies offered directors' names online. In the same year, Marston and Polei (2004) found that 55% of German companies presented directors' biographies. More results were found by Abdelsalam et al (2006): 85% of UK companies displayed directors' and executives' experience, 54% offered the charters of the main board committees, 48% offered their policy on the remuneration of directors and executives and almost 36% offered information on executives' and directors' education. In international studies, FASB (2000) reported that 66% of their sample offered board of directors' and officers' names and a small percentage (29%) offered full biographical details. In developing countries, Khadaroo (2005) found that 64% of Malaysian companies offered the names and composition of their boards, while 53% of Chinese companies offered the current year's resolutions of the board of director (Xiao et al, 2004). In terms of audit committee information, only 42% of the Irish companies presented details about audit committees (Smith and Peppard, 2005) and 32% of UK companies

offered a proxy statement about internal audit committee members (Abdelsalam et al, 2006).

In terms of employment profile, Brennan and Hourigan (1999) found that 18% of Irish companies provided an employment profile on their websites. A lower result (12%) was reported by Oyelere et al (2003) for New Zealand companies. Almost the same result (11%) was confirmed by Marston and Polei (2004) for German companies. In international studies, FASB (2000) found that 32% of their sample disclosed employees' profiles on their websites.

The disclosure of firms' environmental and/or social profiles online was examined in several studies. Geerlings et al (2003), for example, overall, found less than a quarter of companies had published an environmental and/or social report online (Netherlands: 24%; France: 22%; Belgium: 12%). In the same year, Oyelere et al (2003) reported that 22% of New Zealand companies and 52% of German companies offered environmental information (Marston and Polei, 2004). Smith and Peppard (2005) found that 45% of Irish companies disclosed social and environmental information. In 2006, Abdelsalam et al found that 67% of their sample contained a social responsibility section and 46% provided the company's code of ethics.

With regard to industry statistics or data, empirical studies show that the disclosure of industry statistics or data is still used the Internet, but less extensively. FASB (2000), for example, reported that only 13% of their sample offered industry statistics and a lower percentage (3%) was found by Allam (2006). Xiao et al (2004) found that only 2% of Chinese companies offered sales of key products and only 1% provided earnings information or sales forecast. No Chinese companies offered information about the market share of key products.

In respect of the dissemination of the chairman's message, 30% of the IASC (1999) sample, 74% of the FASB (2000) sample and above half of Malaysian companies provided a chairman's message online (Khadaroo, 2005) but only 21% of UK companies did the same (Abdelsalam et al, 2006). In addition, a

chairman' signature was provided by 55% of the FASB sample (FASB, 2000), by 63% of Chinese companies (Xiao et al., 2004) and by 29% of Malaysian companies (Khadaroo, 2005).

IR (2006) claimed that a good website should provide company contact details online, including the e-mail address and telephone number for the investor relations officer (IR, 2006). E-mails to an investor relations office was the most popular item found in previous studies. In 1999, Deller et al, for example, found that 34% of USA firms, 40% in the UK and 31% in Germany included an investor relations e-mail on their websites. In the same year, however, Trites et al found 67% of North American companies provided an investor relations e-mail address on their websites. French and Dutch companies had an option to send e-mails to the investor relations department on their homepages more often than did companies in Belgium (France: 88%; the Netherlands: 82%; Belgium: 62%) (Geerlings et al, 2003). In 2004, Gowthorpe found that 95% of UK companies provided an investor relations e-mail address on their websites but Marston and Polei (2004) found this on all the German companies surveyed. Lower results were reported by Abdelsalam et al (2006). They found that 82% of their sample offered investor relations e-mail addresses online. In developing countries, the provision of investor relations e-mail addresses ranged from 15% in China (Xiao et al, 2004) to 36% in Malaysia (Khadaroo, 2005). In 2006, Allam found that 46% USA firms, 64% in the UK, 60% in Canada, 34% in Australia and 22% in Hong Kong offered e-mail addresses of investor relations staff from their web browser.

Figures also varied on the provision of an investor relations phone number. This provision ranged from 64% of firms in North America (Trites et al, 1999) to 98% in Germany (Marston and Polei, 2004). It was made by 88% of UK companies (Abdelsalam et al, 2006). In developing countries, it ranged from 16% in China (Xiao et al, 2004) to 41% in Malaysia (Khadaroo, 2005). In terms of the postal address of the investor relations office, Marston and Polei (2004) found that 80% of German companies offered such a thing and this was given by 86% of UK companies (Abdelsalam et al, 2006). In developing countries, the provision of an investor relations postal address ranged from 15% in China (Xiao et al.,

2004) to 38% in Malaysia (Khadaroo, 2005). Only two studies, to the researcher's knowledge, have investigated the provision of a fax number and Webmaster contact information. Trites et al (1999) reported that 42% of North America companies offered an investor relations fax number. In 2004, only 19% of Chinese companies offered Webmaster contact information on their home pages (Xiao et al, 2004).

The Investor Relations Society (IR) says (2006) that a good website should allow users to register for e-mail alerts of the latest news and developments and other information of interest to them and should also make it easy for them to stop the information flow on request. The results concerning a mailing list facility again differed across countries. It was found more often in the USA (12%) and Germany (11%) than the UK (6%) (Deller et al, 1999). In France, in contrast, the figure is 68% and in the Netherlands 62%, rather greater than in Belgium (42%) (Geerlings et al, 2003). One year later, however, the figures had increased: 28% for the UK (Gowthorpe, 2004) (78% of UK companies, according to Abdelsalam et al, 2006), 80% of German companies (Marston and Polei, 2004) and 58% of Irish companies (Smith and Peppard, 2005). In addition, Abdelsalam et al (2006) reported that 75% of their sample provided email alerts and a privacy policy but only 0.03% of UK companies informed users when to expect a response to their online requests. In developing countries a mailing list facility was offered by only 3% of Chinese companies (Xiao et al, 2004). In a recent study, Allam (2006) found that a mailing list facility in their home pages was offered by 64% in the USA, 64% in the UK, 50% in Canada, 52% in Australia and 14% in Hong Kong.

Few studies in the past have examined the provision of a webcast feature online. 40% of Ireland companies offered webcasting (Smith and Peppard, 2005). In UK only a little less than a half the total sample (48%) offered webcasts (Abdelsalam et al, 2006), while Allam (2006) found that on average 60% offered webcasting (84% USA, 68% UK, 84% Canada, 62% Australia, and 4% Hong Kong).

5.2.2.3 Timely information:

Another factor of credibility is timeliness; the usefulness of information disclosed by a company is measured, among other things, by its topicality (Debreceeny and Rahman, 2005). Outdated information is irrelevant and could lead to incorrect decisions. For corporate information to be relevant, it must be available to decision-makers before it loses its capacity to influence their decisions (Debreceeny and Rahman, 2005). Barton (1982) and Solomons (1989) indicated that timeliness of information is one of the main aspects of relevance. In this respect, Davies and Whittered (1980) concluded that timeliness is a necessary condition to satisfy if financial statements are to be useful. AIMR (2000) also claimed that frequent and timely disclosures are considered important factors of the quality of disclosure (AIMR, 2000). Fortunately, the Internet provides companies with a low-cost channel for disseminating market-relevant corporate information on a timely basis (Debreceeny, and Rahman, 2005). Botosan (1997), Lundholm and Myers (2002) and Butler et al (2002) demonstrate that timely reporting and higher levels of disclosure reduce information asymmetry and allow investors to better predict future earnings. Moreover, Abdelsalam et al (2006) mentioned that one of the main components of Internet financial reporting credibility is its timeliness. Furthermore, 'The Elements of Effective Website Design' (2003) mentioned that websites should stay up-to-date and review the content of the website (quarterly at least) because if the website is not current, it immediately loses credibility. The Investor Relations Society (2006) requires that all information provided via hard copy should be available on a company's website by the close of business the following day. Moreover, Ralvic and Stretton (2000) reported that share prices which are updated every half-hour during trading gives the home page a sense of life.

At the same time, Debreceeny and Rahman (2005) note some of the limitations of continuous disclosure. First, the disclosure of financial information without any guidelines makes it prone to be premature. Second, it might be difficult for regulators to monitor corporate disclosures on individual corporate websites. Additionally, Ettredge et al (2000) reported that users still wait up to 90 days

and sometimes longer before companies make financial information available on their websites.

The following paragraphs provide a summary of previous studies' findings. These include the possibility of providing a financial calendar, historical information and updated financial information. The findings of previous studies were made in the time frame 1995-2006. For the purposes of comparison, in this study the percentages presented in all the previous studies are based on the total number of companies in the sample. To do this, some percentages presented in the original studies had to be recalculated. Additionally, it worth mentioning that, according to Abdelsalam et al (2006), while a growing body of literature addresses the quality and quantity of financial and other information provided on corporate websites and the determinants of the information provided on corporate websites, the important dimension of the timeliness of Internet financial reporting (IFR) is rarely addressed.

In terms of annual reports, Ettredge et al (2002) investigated the updating lags between the dates when annual reports are filed with the SEC and the dates they are posted on the websites. Their sample was composed of 47 large companies. Ettredge et al (2002) believed that posting speed is indicative of the managers' motivation to adopt real-time, or at least more timely, Internet reporting in the future. Ettredge et al (2002) found that 39 of their sample (83%) posted their annual reports within three months of the SEC filing deadline while 8 (17%) did not post their annual reports.

In terms of interim reports, Flynn and Gowthorpe (1997) found that a quarter (25%) of the 100 largest companies offered an interim report. In 1999, Deller et al found that interim reports were presented more in the USA (97%) and the UK (82%) than in Germany (73%). In the same year, Gowthorpe and Amat (1999) found that only 20% of German companies disclosed a quarterly report. Also more than half (54%) of USA companies did so (Ettredge et al, 2001). In other European countries Geerlings et al (2003) reported that interim reports were presented more in the Netherlands (98%) than in France (94%) and Belgium (86%). 57% of USA companies (Ettredge et al, 2002) offered quarterly reports,

while the percentage was 62% for UK companies (Gowthorpe, 2004), 95% for German companies (Marston and Polei, 2004), 46% for New Zealand companies (Oyelere et al, 2003) and 98% for Irish companies (Marston and Polei, 2004). In developing countries, Xiao et al (2004) reported that only 25% of Chinese companies presented an interim statement and 34% of Malaysian companies did (Khadaroo, 2005). In international studies, FASB found that half the companies included in their survey provided an interim report while Allam (2006) found only 42% doing so.

Another popular timeliness items to have been investigated in previous studies is the financial calendar. This lists all the important events including dividends, record and payment dates, results announcements, investor days and other meetings of potential interest to investors/shareholders. A financial calendar was found most often in Germany, followed by the UK and USA (Germany: 39%; UK: 18%; USA: 9%) (Deller et al, 1999). Ettredge et al (2001) examined a USA sample and found that 12% of companies provided a financial calendar online. One year later, Ettredge et al (2002) found 16% of their sample providing a financial calendar. In 2003, Geerlings et al found that financial calendars were found most often in the Netherlands, followed by Belgium and France (the Netherlands: 76%; Belgium: 64%; France: 62%). In the other European countries it was found that 32% in the UK (Gowthorpe, 2004), 98% in Germany (Marston and Polei, 2004) and 70% in Ireland offered a financial calendar (Smith and Peppard, 2005). In 2006, Abdelsalam et al found that 78% of their sample offered a calendar of future financial events on the Internet. In China no indication of a financial calendar was found (Xiao et al., 2004).

The current share price was a less common feature on the homepages in Spain (2%) (Gowthorpe and Amat, 1999) than among USA companies (15%) (Ettredge et al, 2001) and Chinese companies (19%) (Xiao et al, 2004), but it was common on the homepages in the Netherlands: 70%; France: 90%; and Belgium: 66 (Geerlings et al, 2003). Additionally, 93% of companies in Germany (Marston and Polei, 2004) and 88% in Ireland offered current share price information online (Smith and Peppard, 2005). In 2006, Abdelsalam et al found that 93% of UK companies offered the latest (that day's) share price and

58% enabled users to compare company stock prices with those of peers and industry leaders. FASB (2000) reported that over half (53%) of their sample provided the latest stock price online.

Historical information about share prices was found in 17% (Flynn and Gowthorpe, 1997) ranging to 28% of USA companies (Ettredge et al, 2002), in Ireland ranging between 3% (Brennan and Kelly, 2000) and 51% (Smith and Peppard, 2005). Deller et al found in 1999 that such historical information was available more often in the USA (28%) than in the UK (6%) and Germany (5%). In 2004, Marston and Polei found that 93% of German companies offered such information. Abdelsalam et al (2006) found that 84% of their sample offered a stock graph over long time frames (at least 1 year) and 68% offered a 52 week (one-year) high/low review of shares. In developing countries, Xiao et al(2004) found that 5% of Chinese companies provided share prices and historical information about market capitalisation.

Historical financial information (more than one year old) is supplied by 39% of the USA firms (Ettredge et al, 2001), by 40% of those in New Zealand (Oyelere et al, 2003), by 58% in Ireland (Smith and Peppard, 2005), by 54% in the UK (Gowthorpe, 2004), by 86% in Germany and by 72% in China (Xiao et al, 2004).

In terms of website updating time, Geerlings et al (2003) found that Belgian homepages were less often updated within 24 hours than were French and Dutch homepages (the Netherlands: 46%; France: 36%; Belgium: 18%). One year later, Marston and Polei (2004) found that only 9% of German companies updated their home pages within 24 hours. In the same year, Xiao et al(2004) reported that 2% of Chinese companies updated their home pages within 24 hours. In 2006, Abdelsalam et al found that 82% of their sample displayed the time when the share price was last updated, 7% disclosed the date of the last site update and only 5% indicated how frequently financial information was updated.

5.2.3 Usability content:

Dull et al (2003) mentioned that while much research has been conducted concerning the accounting content of financial statements online, limited research has been conducted in the area of online usability (examining actual practice). The following sections summarise the most common usability items found in the previous studies. Usability items are classified under three headings: general usability, visibility and presentation items. The finding of the studies reviewed took place in the time frame 1995-2006. For purposes of comparison, in this study all percentages presented are based on the total number of companies in the sample. To do this, some percentages presented in the original studies had to be recalculated.

5.2.3.1 General usability items:

Several studies examined website usability, for example, Sullivan (1996) compared “user-friendly” today to what was “user-friendly” fifteen years ago. Fifteen years ago, “user-friendly” software referred to any application that simply had a menu or allowed users to correct input errors. Today, however, usability engineering had sought to develop and implement techniques for making software systems more user-friendly. Arthur Andersen (2001) examined what makes a person want to return to a website to get online information. The survey was conducted between March 30 and April 3, 2001 and is based on responses from 990 online users surveyed by Knowledge Systems & Research, Inc. Table 5-1 summarizes the main reasons.

Table 5.1: Reasons to Return to a Website

Reasons to return to a website	%
Ease of use/navigation	74
Fast download time	65
Regularly updated information	58
Quality of content	57
Organization of content	40
Access to customer service	40
Search tool on the site	25
Homepage layout	20

In contrast, Waller (2004) also cites ten reasons which make a visitor refuse to return to a website. Table (5-2) summarizes the main reasons.

Table 5.2: Reasons Make users Never Return to a Website



Source: (Waller, 2004)

The Elements of Effective Website Design', part I (2003) mentioned that for a website to be accessible and compatible it must be fully functional for all users, no matter what technology they are using (e.g. whether or not their browser supports images or tables). Websites also must be designed to allow equal access to information and services to all users, including those with visual, hearing, cognitive and motor impairments (Planning Usability Activities, 2006). A website should be also easy to navigate and intuitive to use. Waller (2006) believed that it is necessary for web designers to keep data small and minimal to encourage users to browse because the majority of users still have 56K dial-up modems (in Saudi Arabia in particular).

Furthermore, the Investor Relations Society (IR, 2006) suggested guidelines for any good usable website, such as that the URL address is should be simple, short enough to be remembered by users and a logical extension of the company's name and/or brand. Page titles should be brief and should describe the page contents, distinguishing each page from the others on the site (IR, 2006). They should allow users to control the font size – all tables and page layouts should remain legible and logical even when relatively large or small and should import their own style sheets, using contrasting colours between text

and background (IR, 2006). Moreover, IR (2006) mentioned that important financial information (quarterly, interim, preliminary and annual reports) should be clearly indexed and easily downloadable. All presentations, speeches, reports and articles written by key executives, corporate brochures and newsletters should also be available and clearly accessible on the website (IR, 2006). The site should include a clear archive of webcasts for investors who may not have been able to get online at the appropriate time (IR, 2006). It should consider the possibility of foreign language options particularly in the language of investors who hold a large percentage of the company's shares (IR, 2006).

In addition, usable websites should follow the same web standards because users have become accustomed to particular formats (Miller, 1999). The designer should ensure that the basic layout does not change from page to page, because the effect would be comparable to the street signs changing every block. If no city would ever use such a system, neither should any website (Miller, 1999).

Two years later, Coyne and Nielsen (2001) made recommendations for the websites to be less painful for users. The main recommendations were that websites must provide fast and simple access to basic facts and figures, pages need to present well-organized information which is easy to scan and websites should have a main search engine. Moreover, Jones (2002) indicated that the objective of online reporting is to provide information which is simple for users, because users' perceptions about a company website are influenced by their experience of finding and interacting with information. For online corporate information to be easy to use, it should be presented in a way which is easy to find, use and understand (Jones, 2002).

The World Wide Web Consortium (W3C, 2006) suggested that easily accessed shortcuts to the paths it is believed people want to follow, most often at the top or bottom of the page, e.g. a home page/investor information/annual report, provide visitors with an easy reference for their current position on the site. Goldsborough (2004) also recommended that it is desirable to put the most

important information first and to keep text brief, depending on its nature, because many surfers focus on the first screen of a text and designers should use meaningful headlines, subheads, menus and other links instead of relying strictly on fancy graphics and animations, which often just slow surfers down. Flanders (2001) mentioned that colours must be chosen wisely: users must be able to quickly tell which links they have and haven't visited, links should be as different as possible from the text (if the text is black, links should be lighter and brighter; if the text is white, links should be darker and heavier).

Carey and Parker also made some recommendations for the websites to be useful. Carey and Parker (2002) claimed that real transparency is not always about the quantity of information, but about how useful and understandable the data are for users. The main recommendation is to allow different investor types to access the level of information most suited to their needs (Carey and Parker, 2002).

Global Analysis (2000) conducted a study to identify what investors like and dislike regarding online financial reporting. It found that investors like good layout and toolbars and the ability to compare and analyse comparative stock or other performance on the same screen, whereas they dislike too many sponsors, the need to switch between windows because of too many options, too many layers of links and clutter. Ralvic and Stretton (2000) provided an example of best usable site practice in Australia, in terms of its use in investor relations and the provision of financial information. A site was considered to show best practice if investors in many countries were given the latest presentation in different languages (Ralvic and Stretton, 2000).

The International Accounting Standards Committee (IASC) published guidelines for presenting online information (IASC, 1999). Cooper and Reimann (2006) requested that every page be branded and give a clear indication of which website it belongs to, not least because many users will enter through a back door to a specific page passed to them by friends or a search engine. In addition, all pages should be printable and valuable information should not be

omitted from the printed page (Dillon, 2005). The following paragraphs summarise the main general usability items reported in previous studies.

Abdelsalam et al (2006), for example, found that all their sample used standard text, 99% used standard font sizes, 98% used short text and subheadings in articles, 99% used high contrast between foreground and background colours to aid colour-blind users, 36% provided separate print versions for any long pages but only 2 percent used hyperlinks which changed colour to distinguish between visited and unvisited links. Smith and Peppard (2005) found that 32 percent used different colours to identify visited and unvisited links. FASB (2000) found that 66 percent of their sample provided a table of contents within the annual report but only 10% provided an alphabetical index for the annual report.

Presenting the homepage in more than one language is also user-friendly. In Spain, for example, 46% sites offer English language on their homepages as well as Spanish (Gowthorpe and Amat, 1999), while in Sweden 80% presented their homepages in English and Swedish (Hedlin, 1999). FASB (2000) reported that 21% of sites offer multiple languages. Multilingual homepages (English and the local language) were found most often in France than in Belgium and the Netherlands (France: 78%; Belgium: 54%; the Netherlands: 44%) (Geerlings et al, 2003). In Germany, 95% of sites offer English language on their homepages as well as German (Marston and Polei, 2004). In 2006, Abdelsalam et al reported that 13% of their sample offered multiple languages and 15% websites were English-friendly. Xiao et al (2004) found that 47% of Chinese companies offered English language on their homepages as well as Chinese; only 5% offered notes on language translation.

Moreover, Abdelsalam et al (2006) reported that all websites included in their study used short page titles (between 2 and 6 words), 99% made it easy for website visitors to find the company name or logo online, 98% of registered companies had a URL on Google or other popular search engines, 81% used common company name in their URL address, 66% offered a clickable company name or Logo from anywhere on the website and only 9% used a short URL address. Furthermore, Ettredge et al (2002) found that 12% of USA

companies provided transcripts of executive speeches online. Abdelsalam et al (2006) reported that 18% of their sample provided transcripts of any spoken audio clips and 15% provided transcripts of video clips. Additionally, Abdelsalam et al (2006) reported that only 1% of their sample provided videos in versions with subtitles for users who are not native-speakers or who have computers with no sound cards.

5.2.3.2 Visibility items:

Examples of visibility items examined in previous studies are the visibility of the latest annual report, visibility user feedback/'contact us' facilities, the visibility of directors and executive details and the visibility of site updates.

To the best of the researcher's knowledge, Abdelsalam et al (2006) is the only study to examine visibility items from the financial perspective. In 2006, Abdelsalam et al reported that the most visible items from their sample are 100% (for the visibility of the latest annual report), 95% (investor relations link), 91% (user feedback/contact us) 88% (investor relations contact details) 87% (share symbol) 87% (interactive share chart) and 79% (visibility of directors and executive details). For the less visible items Abdelsalam et al (2006) found 6% (for the visibility of site update) 19% (investor glossary) 25% (stock exchange link) 44% (visibility of Investor FAQ) and 44% (visibility of dividend history).

5.2.3.3 Presentation items:

Internet technologies provide opportunities for a company to make the disclosure much more useable by using different formats. This includes the possibility of providing financial information in different formats, such as PDF, HTML and Spreadsheet. Moreover companies allow investors to view presentations by company executives, to listen to audio recordings of presentations and to participate in online meetings. Carey and Parker (2002) believed that providing information in multiple formats made the information generally more accessible and valuable. Ralvic and Stretton (2000) claimed that the site is considered as conforming to best practice if financial information is provided in different formats. The Investor Relations Society (IR, 2006)

stipulated that any good website should, to be useful, offer important financial information (quarterly, interim, preliminary and annual reports) in multi formats such as PDF and HTML.

Reviewing previous studies reveals that there are some common software formats used to present online financial reporting (PDF, HTML, Word document and spreadsheet). One of the most common formats in this context is the Portable Document Format (PDF) (IR, 2006). The PDF format allows the provision of digital annual reports identical to the printed version, since all the fonts, colours, images and graphics of the document are embedded (IR, 2006). None of the PDF formats enable further automated data processing (IR, 2006). Jones (2002) declared that almost 70% of the companies published their most recent proxy statement in PDF files (PDF is a poor option for users who want quick and easy access). Deller et al (1999) found that the PDF format is used more often in the USA and the UK (35%) than in Germany (17%). Marston and Polei, (2004), however, reported different results (98%) for German companies. Furthermore, Trites et al (1999) found that 16% of companies in North America (Canada, and the USA) used PDF format. In France, 94%, in the Netherlands 94% and in Belgium 88% of companies offered financial information in PDF files (Geerlings et al, 2003). Fisher et al (2004) reported that 91% of New Zealand companies used the PDF format to provide audit reports. The PDF format was found less common in Spain (18%) (Gowthorpe and Amat, 1999) and in Finland (4%) (Lymer and Tallberg, 1997). In 2006, Abdelsalam et al found that 70% of their sample offered their annual report in PDF format. In developing countries, only 2% of Saudi companies (Abu Al-Azm, 2001) and 29% of Chinese companies (Xiao et al., 2004) offered financial information in PDF format. In international studies, using PDF format to disclose financial information on the Internet was found at 13% for the IASC sample (1999), 57% for FASB (2000) and 54% for Allam (2006). Moreover, Abdelsalam et al (2006) found that 28% of their sample offered for each PDF document a summary description of content and file size and only 15% offered the option for large PDF files of downloading documents in sections.

The second most common software format is HTML. HTML (Hypertext Markup Language) simply does not permit the automated processing of financial data by the computer system of the receiver (IR, 2006). The HTML format is more often used by German companies (22% in 2000 and 57% in 2003) to disclose financial information on the Internet than by those in other developed countries (Marston and Polei, 2004). Only 1% of New Zealand companies provided an audit report in HTML format (Fisher et al., 2004) and no Finnish companies used it (Lymer and Tallberg, 1997). In developing countries, Xiao et al (2004) reported that 49% of Chinese companies used the HTML format to provide financial information. In terms of international studies, IASC (1999) found that 16% of their sample used HTML as did 55% of the FASB's sample (2000). Also in 2006, Allam (2006) reported that only an average of 3% of the total sample used HTML format to provide financial information (2% USA, 2% UK, 0% Canada, 2% Australia, 8% Hong Kong). Moreover, Fisher et al (2004) reported that only 5% of New Zealand companies offered financial information in both formats (PDF and HTML). In 1999, the IASC found that almost 20% of their sample used both formats. Allam (2006) overall found that almost the same result (22%) used both formats.

A processable format (e.g. spreadsheets) is the third most common software format used to provide financial information. The processable format carries great potential benefits especially for financial analysts who transfer financial data into their own financial indicators (IR, 2006). Some companies structure the financial information in Microsoft Excel spreadsheets or comma-delimited text files which can be imported into the database of the receiver's system, for further processing (IR, 2006). Processable formats were, however, found less commonly in all the developed countries (less than 20%). Deller et al (1999), for example, found that a processable format was more often found in the USA (13%) than in Germany (7%) and in the UK (6%). In same year, Hedlin (1999) reported that only 12% of Swedish companies provided financial information in a processable format, whereas it was found more often in France (20%) than the Netherlands (14%) and Belgium (8%) (Geerlings et al, 2003). In Germany, Marston and Polei (2004) found that in 2000 10% of their sample provided financial information in processable format, but 14% in 2003. In developing

countries, offering financial information in processable format ranged from 0.5% in China (Xiao et al., 2004) to 69% Malaysia (Khadaroo, 2005). In international studies, it was offered by 95% of Allam's sample (2006) (98% USA, 94% UK, 100% Canada, 98% Australia and 86% Hong Kong), 39% of the IASC sample (1999) and 13% of the FASB sample (2000).

Regarding the provision of financial information in other formats, FASB (2000) found that 11% of the sample companies offered financial information in Word files. Only a few (8%) of Finnish companies offered corporate reports in scanned image format (Lymer and Tallberg, 1997). Presenting information by using XBRL-format was not found at all in France, the Netherlands or Belgium (Geerlings et al, 2003).

With regard to providing information for investors in multimedia format, overall, it has been found that this sort of presentation (video or other material) was rarely used. In the USA, for example, 9% of the companies offered speeches of company executives (Ettredge et al, 2001). Gowthorpe (2004) found almost the same result for the UK companies (6%). Geerlings et al (2003) reported that multimedia format was less widespread in the three countries surveyed (the Netherlands: 54%; France: 48%; Belgium: 12%). In Germany it was found that in 2000 only 8% offered sound and 24% video files, although in 2003 24% offered sound files and 50% video files (Marston and Polei, 2004). New Zealand was found to be exceptional: 81% offered management speeches recorded in multimedia format (Oyelere et al, 2003). In 2006, Abdelsalam et al found that only 36% of their sample offered audio clips/recorded speeches from shareholder meetings or press conferences. In developing countries, only 5% of Chinese companies offered sound files and none used video files (Xiao et al, 2004). However, 16% of Malaysia companies provided sound files and 18% video files (Khadaroo, 2005). In international studies, FASB (2000) reported that 7% of the total sample offered sound files and only 6% offered video files on their websites. In respect of annual general meetings (AGM), Marston and Polei (2004) found that 77% provided online speeches by the management board during the AGM and Abdelsalam et al (2006) found that 27% provided videos of

annual general meetings or press conferences. Moreover, Xiao et al (2004) found that 12% of Chinese companies used chat rooms.

In summary, the above results show that most of the previous studies describe IFR components undertaken in the developed world. Moreover, these studies mainly concentrate on the largest companies. Previous studies lead also to the view that the quality of websites has improved over the years and suggests that, with few exceptions, most previous studies have reviewed a very limited number of content and/or usability items (Abdelsalam et al, 2006, 143 items; Abdelsalam et al, 2004, 114 items; Xiao et al, 2004, 82 items; Marston and Polei, 2004, 71 items; and Allam and Lymer, 2003, 36 items). Moreover, regardless of how many companies have established websites, there are variations in the content of the different companies' websites (Abdelsalam et al, 2006; Smith and Peppard, 2005; Khadoree, 2005; Allam, 2005; Oyelere et al, 2004; Xiao et al, 2004; Abdelsalam et al, 2004; Marston, 2003; Debreceeny et al, 2002; Ettredge et al, 2002; Ettredge et al, 2001; FASB, 2000; Marston and Leow, 1998; Flynn and Gowthorpe, 1997; Lymer, 1997). Thus it is important to find the effects of different factors of company disclosure. Previous studies identified some factors which may influence companies' disclosure, such as the company size and its industrial sector. The next sections discuss the most common factors widely believed to affect Internet disclosure.

5.3 Factors affecting the adaptation and content of Internet reporting:

As mentioned above, the second part of this chapter tried to identify reasons for the differences in the online disclosure practices of companies by testing the association between seven firm-specific factors and the level of Web disclosure. The following paragraphs discuss the most common factors widely believed to affect Internet reporting by companies. These studies are divided into three sections. The first section summarises research undertaken in developed countries, then studies taken in developing countries and lastly those undertaken in internationally.

5.3.1 The Effect of Company Size:

Evidence from the empirical studies revealed that there is a positive and significant association between company size and online disclosure practices (Xiao 2004; Oyelere et al, 2003; Marston, 2003; Ettredge et al, 2001; Brenan and Hourigan 2000; Gowthorpe and Omat 1999; and Craven et al, 1999). The notion behind this hypothesis is that, first, if the production of information is costly then large firms are more likely to have the resources for it (cost and benefit theory) (Ashbaugh et al, 1999; Marston and Leow, 1999; Hassen et al, 1999; Cooke, 1992). Second, larger firms are subject to more public and regulatory scrutiny (Watts and Zimmerman, 1986) and thus are likely to voluntarily disclose more information to satisfy the external users of financial information to raise capital and reduce political costs (Debreceeny et al, 2002; Ettredge et al, 2002; Lang and Lundholm, 1993; and Chow and Wong-Boren, 1987). Last, larger firms generally have a diverse product range and more complex distribution networks than smaller firms. As a result, large, more complex management information systems and databases are required for management control purposes. Consequently, disclosure costs may be generally lower for larger firms (Oyelere et al, 2003). These studies are discussed further below. In addition, the size of the company can be measured in the number of details disclosed, such as capital employed, turnover, number of employees, company's market value and more. There is no dominant theoretical reason for selecting one rather than another. The following

paragraphs are divided between developed country, developing country and international studies.

Developed countries studies:

One of the earliest studies about factors affecting Internet financial reporting was made by Graven and Marston (1999). They tested the association between the level of Internet disclosure by a sample of U.K. companies (206 companies) and company size. Graven and Marston (1999) measured the company size by four independent variables: turnover, number of employees, total assets employed and market value. They found that there are positive significant associations between all the size variables ($p < 0.029$, turnover; 0.001, No. of employees 0.000; Total assets employed, 0.032; market value, 0.000) and the existence of a website. Also they found that there is significant association between the extent of financial disclosure and the company size ($p < 0.017$, turnover; 0.007, No. of employees; 0.026, total assets employed; 0.000 market value). A limitation expressed by Graven and Marston (1999) about their study is that they considered only the largest companies. Thus the result should be restricted to disclosure by large companies.

In the same year, Pirchegger and Wagenhofer (1999) examined the relationship between Internet financial disclosure and the size of the company in 32 Austrian companies in 1997 and 1998 and 30 German companies in 1998. They used a logarithm of annual sales to measure the company size. By using regression analysis Pirchegger and Wagenhofer (1999) found that there was a high positive relation between Internet financial disclosure and size of the company for the Austrian samples (R 0.485 in 1997 and 0.354 in 1998). The results of German sample reveals that there was no significant relationship (R 0.126) between the Internet financial disclosure and size of the company. Gowthorpe and Amat (1999) also conducted a study to examine whether there is relationship between the level of Internet disclosure and the company size. The study found that larger companies are far more likely to have a website: this applied to 26 (74%) of the 35 companies with a website.

Another study in the same year was also carried out by Ashbaugh et al (1999) to examine the association between Internet financial reporting and the influence of company size in 290 USA companies identified by Chartered Financial Analysts (CFA). The company size was identified by the median of total assets. By using multivariate logit regression analysis techniques Ashbaugh et al (1999) found that large companies are more prepared to disclose their financial information on the Internet ($P < 0.0039$ median of total assets). Debreceeny et al (2002) examined the relationship between Internet financial reporting (presentation and content) and company size in 660 of the largest companies listed from 22 countries. The company size was identified by the market capitalisation. The study expected that there was a positive association between company size and the extent of Internet financial disclosure (based on agency theory). By using regression analysis techniques it was found that there was a positive relationship between Internet financial reporting presentation (IFR-P) and content (IFR-C) with the size of the company (Z value IFR-P 5.21 and IFR-C 4.98).

One year later Marston (2003) examined the association in 1998 between the Internet and Internet financial disclosure and size of the company in 99 Japanese companies (based on legitimacy theory and agency theory). Marston (2003) study used turnover and capital employed to measure the company size. By using the Kruskal-Wallis test, Marston (2003) found a positive relationship between Internet disclosure and the size of the company for the Japanese companies ($P = 0.004$ level for capital employed and $P = 0.001$ level for turnover). However, there was no significant relationship between Internet financial disclosure and company size ($P = 0.073$ level for capital employed and $P = 0.240$ level for turnover). In the same year, Oyelere et al (2003) tested the association between the level of Internet financial reporting disclosure and the size of a firm (Market capitalisation and total assets) in New Zealand firms (229) listed on New Zealand Stock Exchange (NZSE) at the end of 1998 (based on agency theory). Using the Univariate test (T-test), Oyelere et al (2003) found significant positive association between IFR and size of firm ($P < 0.000$ for both market capitalisation and total assets). Marston and Polei (2004) also examined the relationship between Internet financial reporting (presentation and content) and

firm size by German firms between two points in time (2000 and 2003). Firm size was measured by the market capitalisation. The results of regression analysis revealed that only size is a significant explanatory variable for the Internet financial reporting presented at companies' websites which is stable over time (2000 and 2003).

In 2008, Kelton and Yang examined the relationship between Internet financial reporting (format, content, and total disclosure) and size of the company by 284 firms traded in the NASDAQ national market. Kelton and Yang (2008) study used natural logarithm of the firm's market value of equity to measure the company size. Kelton and Yang (2008) predicts that larger firms are more likely to use the Internet to provide financial disclosures (based on agency theory). By using regression analysis Kelton and Yang (2008) found a positive and statistically significant for three of the Internet financial reporting measures (format p 0.03, content 0.04, and total disclosure p 0.04) and the size of the company. Reviewing these studies, it can be said that there is a significant relationship between Internet disclosure and company size in the developed world.

Developing countries studies:

In Malaysia, Hassen et al (1999) undertook the first study in the developing world, to the best of the researcher's knowledge. Hassen et al (1999), for example, investigated the relationship between company size and the decision to adopt a website and to disclose financial information in 247 listed and unlisted Malaysian companies. The total assets were used by Hassen et al (1999) as criteria to identify the company size. By using Univariate analysis the study revealed that there is significant positive association between presence on the Internet and large companies (0.016 t-test). Moreover, they reported that larger companies are more likely than smaller companies to disclose financial information on their website (0.014 t-test).

Another study was carried out by Joshi and Al-Bastak (2000) to examine the relationship between the extent of financial disclosure and the influence of company size in 35 Bahrain banks. The company size was identified by the log

of total assets. The study expected that there is no significant association between company size and the extent of financial disclosure by banks on the Internet. By using multiple discriminant analysis techniques, it found that large banks are more prepared to disclose their financial information on the Internet ($P < 0.018$ log of assets). Xiao et al (2004) examined the association between the level of Internet disclosure by a sample of Chinese companies (300 companies) and company size (based on legitimacy theory). Natural logarithm of capitalization was used by Xiao et al (2004) as a criterion to identify company size. Using regression analysis, it was found that a highly significant relationship existed between Internet disclosure and company's size ($p = 6.57$). The conclusion from studies in developing countries also is that there is a significant relationship between Internet financial disclosure and company size.

International studies:

To the researcher's knowledge, only two studies have examined the relationship between Internet financial disclosure and company size. Allam (2006) tested this relationship, using a study sample of the biggest 50 companies in 5 countries, a total of 250 companies. The five countries included in Allam's (2006) study were the USA, the U.K., Canada, Australia and Hong Kong. Allam (2006) used market capitalization to measure the company size. By using regression analysis, he found a negative association between Internet financial disclosure and company size for all countries (USA 0.33, U.K. 0.001, Canada 0.005 and 0.038) with the exception of Australia.

In the same year, Bollena et al (2006) examined the association between Internet financial reporting (IFR) and company size. The data used in Bollena et al (2006) study was collected from 270 companies listed in six different countries: Australia, Belgium, France, the Netherlands, South Africa and the UK. Bollena et al (2006) argue that the quality of IR websites is positively related to company size. Company size was measured by the level of market capitalization. Based on the multivariate analysis, Bollena et al (2006) found that positive and significant relationship between (IFR) and company size. This result is consistent with that of Ashbaugh et al (1999), Craven and Marston

(1999), Ettredge et al (2002), Debreceeny et al (2002) and Marston and Polei (2004).

5.3.2.The Effect of Company Performance:

Evidence from the literature review shows that the relationship between adopting online disclosure practices and company performance is significant and positive (Marston, 2003, Xiao et al, 2004). Higher profitability firms are more likely to have corporate websites and to disclose financial information than firms with a lower level of profitability (Miller, 2002). The idea behind this hypothesis is that firms disclose more information, including the use of new channels such as Internet (signalling theory), in an attempt to reduce political cost or to enhance their image (Craswell and Taylor, 1992). This hypothesis was tested by many empirical Internet disclosure studies (see for example, Marston and Polei, 2004; Xiao et al, 2004; Marston, 2003; Oyelere et al, 2003; Ettredge et al., 2002; Joshi and Al-Bastak, 2000; Ashbaugh et al., 1999; Hassen et al., 1999; and Marston and Leow, 1999). Further, Skinner (1994) found another factor affecting the frequency of financial disclosure. He demonstrated that there is a relationship between the frequency of financial disclosure and firms' performance. Firms increase disclosure if their performance is low to reduce litigation from investors. Company performance can be measured in a number of different ways, such as net profit. These studies are discussed further in the next paragraphs. The following section will follow the same sequence of developed country, developing country and international studies.

Developed countries studies:

Ashbaugh et al (1999) examined the association between Internet financial reporting and company profitability by 290 USA companies identified by Chartered Financial Analysts (CFA). The company profitability was identified by the median return on assets. By using multivariate logit regression analysis techniques, Ashbaugh et al (1999) found that there is no significant relationship between firm profitability and Internet disclosure ($P < 0.8347$ median return on assets). Another study supporting this result was carried out by Ettredge et al (2002), who empirically investigated the relationship between the extent of Internet financial reporting disclosure and company performance (based on

signalling theory). Their sample consisted of 220 companies identified by Chartered Financial Analysts (CFA). Ettredge et al (2002) used firm's annual stock return to measure company performance. By using regression analysis they found a negative association between Internet reporting disclosure and company performance ($p = -0.010$).

Marston (2003) tested the association in 1998 between Internet financial disclosure and company profitability in 99 Japanese companies. The study used pre-tax profit and pre-tax profit divided by capital employed to measure company profitability. By using the Kruskal-Wallis test Marston (2003) also found that there was no significant relationship between profitability and website status ($P = 0.134$ pre-tax profit and $P = 0.759$ level for pre-tax profit/capital employed). Moreover, there was no significant relationship in respect of profitability with the extent of financial disclosure ($P = 0.290$ level pre-tax profit and $P = 0.783$ level for pre-tax profit/capital employed).

Oyelere et al (2003) also conducted a study to examine the factors which could explain the variation in Internet financial reporting (IFR) of a sample of New Zealand companies listed on the Stock Exchange (NZSE) (229 companies). They tested the relationship (based on agency theory and signalling theory) between the level of Internet disclosure and company's profitability (return on equity and return on total assets). Using the Univariate test (T-test), Oyelere et al (2003) found no significant association between IFR and company profitability ($P = 0.239$ return on equity and 0.670 return on total assets).

Marston and Polei (2004) examined the relationship between Internet financial reporting (presentation and content) and firm profitability by German firms between two points in time (2000 and 2003). Firm profitability was measured as the return on equity. By using regression analysis Marston and Polei (2004) found that profitability appeared to be an insignificant predictor for the Internet practices of the sample companies over time (2000 and 2003). Most studies of the developed world clearly show that no relationship exists between the level of Internet financial reporting disclosure and company's profitability.

In 2008, Kelton and Yang examined the relationship between Internet financial reporting (format, content, and total disclosure) and firm profitability by 284 firms traded in the NASDAQ national market. Firm profitability was measured as the return on equity. Kelton and Yang (2008) mentioned that managers of profitable firms have greater incentives to disclose information to raise shareholder confidence and support management compensation contracts than managers of other firms. Thus Kelton and Yang (2008) predicts that the level of a firm's Internet-based disclosure is positively associated with profitable firms. By using regression analysis Kelton and Yang (2008) reported that the level of a firm's Internet-based disclosure is almost negatively associated with firm profitability (format $p < 0.00$, content $p < 0.02$, and total disclosure $p < 0.01$).

Developing countries studies:

Again Hassen et al (1999) made the first study in the developing world. They studied the relationship between company performance and adopting a website to disclose financial information in 247 listed and unlisted Malaysian companies. The net profit before tax is used by Hassen et al (1999) as the criterion to identify company performance. By using Univariate analysis they found that there is significant positive association between presence on the Internet and company performance (0.016 t-test). Moreover, they report that profitable companies are more likely than other companies to disclose financial information on their Website (0.014 t-test).

One year later, Joshi and Al-Bastak (2000) examined the relationship between the extent of financial disclosure and the influence of company performance by 35 Bahrain banks. Profit was used to measure the company performance. Joshi and Al-Bastak (2000) argue that there is no significant association between profitability and the extent of financial disclosure by banks. The study revealed that profitability is not considered an important reason for banks to decide whether or not to present their financial information on the Internet ($P < 0.096$).

Furthermore, Xiao et al (2004) examined the association between Internet disclosure by a sample of Chinese companies (300 companies) and company profitability. Xiao et al (2004) argue that managers of profitable firms have a

greater incentive to disclose information to support the continuance of their position and compensation arrangements and to attract capital or to reduce the risk of being undervalued by the market (based on agency theory and signalling theory). In order to measure company profitability, Xiao et al (2004) used return on assets. Using regression analysis, Xiao et al (2004) found no significant relationship between Internet financial reporting and company profitability (p 1.25). In the developing world, Hassen et al.'s unique study (1999) revealed that there is significant relationship between Internet financial reporting and company profitability. To the best of the researcher's knowledge there is no international study linking IFR and company profitability.

International studies:

To the researcher's knowledge, only one study has examined the relationship between Internet financial disclosure and company performance. Bollena et al (2006) examined the association between Internet financial reporting (IFR) and company performance. The data used in Bollena et al (2006) study was collected from 270 companies listed in six different countries: Australia, Belgium, France, the Netherlands, South Africa and the UK. Bollena et al (2006) states that the quality of the IR website is influenced by company performance. Bollena et al (2006) study used average stock return and return on equity to measure the company performance. Based on the multivariate analysis, Bollena et al (2006) found that stock return is mostly negative, but never significant (p - 0.754) and the results of for return on equity not significant also (0.117).

5.3.3 The Effect of the Industrial Sector:

Several studies have been taken to show the relationship between financial information disclosure and the industrial sector (Xiao 2004; Oyelere et al, 2003; Ettredge et al, 2001; Brenan and Hourigan, 2000; Gowthorpe and Omat, 1999; Marston and Shives, 1996; and Ball and Foster, 1982). Botosan (1997) and Nagar et al (2003), for example, revealed that Internet disclosure levels could also be affected by industrial and cultural factors. Moreover, the variation between different decisions about Internet disclosure arises from differences in technologies, the nature of the activities and the varying levels of risks, returns and users' needs (Debreceeny and Rahman, 2005; Nagar et al., 2003; Botosan,

1997). Butler et al (2002) also asserted that firms in a specific industry, which may be less competitive, will disclose information less frequently. Moreover, Debreceeny and Rahman (2005) reveal that companies with longer production cycles will provide less frequent financial reporting. In contrast, Butler et al (2002) argue that firms with the longest product cycles are requested to provide more frequent financial disclosures because such firms are less transparent. Moreover, the effect of the industrial sector may be related to one of two arguments. First, members of one industrial group may follow the accounting policies used by the industry's leaders (Xiao et al, 2004). Second, there is a relationship between industry and political cost, whereby a certain industry sector is subject to greater political scrutiny than others (Ettredge et al, 2001). These studies are discussed further in the next paragraphs. The following paragraphs will follow the same sequence as in previous sections.

Developed countries studies:

In 1999, Graven and Marston conducted a study to examine the factors which could explain the variations in Internet reporting of a sample of the 206 largest UK companies. They tested the association between the industry type and the extent of financial disclosure on the Internet. Graven and Marston (1999) based their classification of industry type on the London Stock Exchange Index. They found that from the chi-square tests there is no relationship between industry type on whether the company had a website ($P=0.983$) and with the extent of financial disclosure on the Internet ($P=0.456$).

Ashbaugh et al (1999) carried out a survey to examine the association between Internet financial disclosure and the impact of industry classification in 290 USA companies identified by Chartered Financial Analysts (CFA). Seven classifications were used to classify the firms by industrial sector. By using multivariate logit regression analysis techniques, Ashbaugh et al (1999) reported that no association exists between the Internet financial reporting and industrial sector ($P<0.2001$ median of industrial adjusted). In the same year, Gowthorpe and Amat (1999) tested the association between Internet usage and the impact of the industry sector of a sample of 379 Spanish companies. 27 classifications were used to identify the industry sector. It has been reported

that certain company sectors are far more likely to use a website for communication than others. For example, 100% of water sector companies had a website, whereas 10% of holding companies had one. There are, however, two major criticisms of Gowthorpe and Amat's study. First, they offered no statistical technique to measure the relationship between the type of industry and the financial information disclosed. Second, they classified industrial types under 27 headings, making it difficult to observe the results.

Ettredge et al (2001) also tested (based on signalling theory) the association between the levels of Internet financial disclosure by a sample of USA companies (490 companies). Specifically, they examined the association between the level of disclosure and industry type (companies represented 17 industries). An ANOVA test indicates that the variation across industries is significant. The levels range from 3.3 (55% of possible points) in the petroleum industry to 1.5 (25%) in the homebuilding industry. In Japan, Marston (2003) examined the association in 1998 between Internet disclosure and type of industry by 99 Japanese companies. The study classified the types as the Financial sector (23), General sector (24), Utilities sector (12) and Manufacturing (40). By using the Chi-square test, Marston (2003) found a highly significant relationship between industry type and website status ($P < 0.001$). However, the study reveals that there is no significant association with Internet financial disclosure ($P = 0.300$).

In the same year, Oyelere et al (2003) empirically (based on legitimacy and signalling theory) investigated the practice of Internet financial reporting (IFR) by a sample of New Zealand listed companies (229 companies). They used political cost theory to explain the variation in IFR disclosure among these companies. Specifically, they tested the association between the level of IFR and type of industry. Using the Univariate test (Chi-square), Oyelere et al (2003) concluded that the variation in the level of IFR among New Zealand companies can be explained by type of industry ($P < 0.000$). The notable conclusion of these studies is the mix of the results. These mixed conclusions may be due to the different sampling techniques, different statistical analyses and different countries or any combination of these.

Developing countries studies:

Hassan et al (1999), for example, examined the association between the industrial sector and the decision to adopt a website and disclose financial information in 247 listed and unlisted Malaysian companies. Twelve sectors used by Hassan et al (1999) as the basis of classification by sector. It has been found that industrial classification significantly influences companies' decision whether to adopt an Internet presence or not. Competitive advantage could be one explanation for this result. However, the study reported that there is no association between industrial sector and financial disclosure (Univariate analysis used).

Joshi and Al-Bastak (2000) provided some information from the survey which they conducted in December 1998 examining the relationship between the extent of Internet disclosure and the influence of the industrial sector by 35 Bahraini banks. They classified Bahraini banks into three categories; commercial banking; commercial banking with offshore banking; and offshore banking units. Joshi and Al-Bastak (2000) hypothesised that there is no significant association between types of banks and Internet financial disclosure. By using discriminant function analysis, the study concluded that industry type is not considered an important reason for banks to decide to present their financial information on the Internet ($P < 0.130$).

Xiao et al (2004) examined (based on legitimacy and innovation theory) the extent of information disclosure on the Internet by the largest companies in China in 2002 and whether such practice is associated with type of industry. Xiao et al (2004) argued that the extent of Internet disclosure is greater among Chinese companies in the IT industry than in other industries. This study describes three reasons for an association between disclosure and industry type. First is their expertise with the Internet. Second, as IT companies have an incentive to demonstrate that they are technology leaders, they are more likely to experiment with Internet disclosure. Finally, firms tend to imitate earlier adopters within the same group. Their results revealed that there is significant positive association between presence on the Internet and the type of industry

(P 616). Moreover, they report that companies in the IT industry disclosed more information and also have more extensive and elaborate presentation formats.

Abdelsalam et al (2004) examined (based on legitimacy and signalling theory) the association between the Internet and Internet financial disclosure and industry type by 30 Sensex companies (India) in July 2004. The study classified the industries into manufacturing and non manufacturing. By using multivariate regression analysis, Abdelsalam et al (2004) found a negative association between manufacturing industries (P 0.037). The result of Abdelsalam et al.'s study (2004) is consistent with studies of other countries (Graven and Marston, 1999; Ashbaugh et al, 1999; Joshi and Al-Bastak, 2000). Again, as in developed countries, the results are mixed. This mixture also can be attributed to different sampling techniques, different statistical analyses and different countries.

International studies:

To the best of the researcher's knowledge, there are only two studies which have examined the relationship between Internet financial disclosure and industry type. Debreceeny et al (2002) examined the extent of Internet information disclosure (presentation and content) by 660 of the largest companies listed in 22 countries and whether such practice is associated with type of industry. By using regression analysis techniques, it was found that there is a low positive significant relationship (Z value 2.11) between the presentation of Internet financial reporting and high technology firms and no significant relationship (Z 1.83) with the content of their Internet financial reporting.

Bollena et al (2006) examined the association between Internet financial reporting (IFR) and industry type (based on legitimacy and signalling theory). The data used in Bollena et al (2006) study was collected from 270 companies listed in six different countries: Australia, Belgium, France, the Netherlands, South Africa and the UK. Bollena et al (2006) states that the quality of the IR site is positively related to the technological development within the company. Industry type was captured by a dummy variable (1) for companies in the services or telecommunications industry and value (0) for companies in other

industry sectors. Based on the multivariate analysis, Bollen et al (2006) found that the association between (IFR) and industry type negative but not significant ($-P 0.127$).

5.3.4 Stock Market Listing

A number of studies have been undertaken to show the relationship between voluntary disclosure and stock market listing. It has been argued that firms whose shares are listed on the stock market are more likely than non-listed firms to have a website and to provide more information (Malone et al, 1993; Wallace et al, 1994, Hassen, 1999). The main idea behind this hypothesis is that, first, listed firms voluntarily adopt voluntary disclosure (e.g. the Internet and Internet disclosure) in order to attract and raise finance through the stock market (Marston, 2003). Second, listed companies are much more in the public eye than unlisted companies (Xiao et al, 2004). Third, the dispersion of shareholders across country borders gives rise to asymmetries of the place and timeliness of information. Internet financial reporting can reduce such information asymmetry by its instantaneous distribution and wide reach (Debreceeny et al, 2002). These studies are discussed further in the next paragraphs. The following paragraphs will follow the same sequence as in previous sections.

Developed countries studies:

Marston (2003) examined the extent of Internet use and Internet financial information disclosure by 99 Japanese companies in 1998 to see whether such practice is associated with overseas listing status. Marston (2003) argued that companies listed on an overseas exchange are quite likely to use the Internet to communicate more economically and quickly with investors and potential investors. By using the Chi-square test, Marston (2003) found that there is no significant association between Internet and Internet financial disclosure and overseas listing status ($P 0.360$ level for website and 0.153 level for financial disclosure).

Oyelere et al (2003) also conducted a study to examine whether foreign listed companies disclose more than those listed only on the New Zealand stock

Exchange (NZSE). Their study was based on a sample of 229 New Zealand listed companies. Using the Univariate test (Chi-square), Oyelere et al (2003) found that the difference in internationalisation of the level of disclosure of Internet financial reporting is statistically significant ($P = 0.011$).

Marston and Polei (2004) also examined (based on agency theory, legitimacy and signalling theory) the relationship between Internet financial reporting (presentation and content) and Foreign listing status by German firms between two points in time (2000 and 2003). Foreign listing status is measured by a dummy variable of 1 if the company is listed on at least one foreign stock exchange and of 0 if the company is listed only on German stock exchanges. The results of regression analysis revealed that foreign listing status is only significant for the 2003 sample using the normal scores approach ($P = 0.03$). In conclusion, these studies have focused on investigating the relationships between Internet reporting and the stock market. The studies report different results in different countries.

Developing countries:

There is only one study, in the researcher's knowledge, which has examined the association between Internet reporting and the stock market. Xiao et al (2004) tested the Internet financial information disclosure in 2002 by the largest companies in China and whether such practice is associated with the stock market. Xiao et al (2004) (based on legitimacy and signalling theory) believed that firms which are quoted on several stock exchanges or follow International Accounting Standards are more likely to adopt IFR. Xiao et al (2004) put companies into two categories; H-shares (required to follow International Accounting Standards) and B-shares (following Chinese standards). By using regressions analysis, Xiao et al (2004) found that there is no significant association between the stock market and IFR ($P = 4.70$).

International studies:

Again there seems to be only one study which has examined the association between Internet reporting and the stock market. Debreceeny et al (2002) tested the association between Internet disclosure (presentation and content) by 660 of the largest companies listed in 22 countries and the state of their listing. By using regression analysis techniques there was found to be a low significant association between Internet reporting presentation (Z 2.4) and content (Z 2.53) with listing on US securities markets and a negative association between Internet reporting (presentation Z 1.77 and Content Z 1.73) and firms listed on overseas securities markets.

5.3.5 The Effect of the Type of Auditor:

Evidence from the literature review shows that there is a relationship between brand name auditors and Internet disclosure (Abdelsalam et al, 2004; Xiao et al, 2004; Al-Razeen and Karbhari, 2004; Verrecchia, 2001; Eccles et al, 2001; Dopuch, King and Schwartz, 2001; Almodahki, 1999; Hassen et al, 1999; Wallace et al, 1994; Simunic and Stein, 1994; Healy and Palepu, 1993; Craswell and Taylor, 1992; Titman and Trueman, 1986). The ideas behind this hypothesis are, first, the credibility of the firm's financial statements is enhanced when the firm hires a brand name auditor (Verrecchia, 2001). Second, large audit firms (the Big 4) offer high quality audits because they have the resources to perform comprehensive audits and less motivation to compromise on audit quality (Simunic and Stein, 1994). Craswell and Taylor (1992) also mentioned that a firm's choice of auditor is likely to be associated with the decision to disclose more or less information. Xiao et al (2004) revealed that the Big 4 firms tend to be independent of clients' pressure to limit disclosure to maintain their reputation. The results of previous studies (Al-Razeen and Karbhari, 2004 and Abdelsalam et al, 2004) found a positive relationship between Internet disclosure and brand name auditors, but Almodahki (1999), Hassen et al (1999) and Xiao et al (2004) did not find any relationship. These studies are discussed further in the next paragraphs. The following paragraphs will follow the same sequence; developed, developing and international studies.

Developed countries studies:

To the best of the researcher's knowledge, there is only one study has examined the association between Internet reporting and the type of auditor in developed countries.

Kelton and Yang (2008) examined (based on agency theory and signalling theory) the association between Internet financial reporting (format, content, and total disclosure) of 284 firms traded in the NASDAQ national market and their auditors. Kelton and Yang (2008) measured audit type by a dummy variable coded "1", if the auditor is Big-4 firm, and zero otherwise. They predict that the level of a firm's Internet-based disclosure is positively associated with Big-4 firm. Using the regression model Kelton and Yang (2008) found a significant association between auditor type and the total level of Internet financial reporting (P 0, 18) and with content (P 0, 28).

Developing countries studies:

Almodahki (1996) examined the association between the level of annual disclosure (hard copy) of 33 Saudi companies and their auditors. Using the Mann-Whitney U test, she found that the level of disclosure was not associated with the company's auditor type. Another study examining the annual corporate disclosure (hard copy) of a sample of Saudi companies was conducted by Al-Razeen and Karbhari (2004). They examined the relationship between the level of annual disclosure (hard copy) of 68 companies and the auditor type. Using the multiple regression model Al-Razeen and Karbhari (2004) found a significant association between auditor type and the level of mandatory disclosure (P 0,074).

Hassen et al (1999) studied the association between auditor type and the decision to adopt a website and to disclose financial information in 247 listed and unlisted Malaysian companies. Hassan et al (1999) classified the auditor types as belonging to the Big 5 auditors (now the Big 4) or not. By using Univariate analysis, Hassan et al (1999) found no significant association between firms audited by the Big 4 auditors and the overall motivation to adopt a website and disclose financial information (t-test 0.332).

Moreover, Xiao et al (2004) examined (based on legitimacy theory and agency theory) the extent in 2002 of disclosure of financial information on the Internet by the largest companies in China and whether such practice is associated with the type of auditor. Xiao et al (2004) argued that the extent of Internet disclosure is greater among Chinese companies audited by the Big 5 international audit firms (now the Big 4) than among other companies. By using regression analysis, Xiao et al (2004) found that there is no significant association overall between being audited by a Big 4 international auditing firm and the quality of corporate Internet reporting ($P = 0.62$). The result by Xiao et al (2004) is consistent with studies of other countries (Almodahki, 1996; and Hassen et al, 1999).

Abdelsalam et al (2004) tested (based on signalling theory) the association between Internet disclosure and auditor type by 30 Sensex companies (India) in July 2004. The study classified the auditor type as belonging to the Big 4 auditors or not. By using multivariate regression analysis, Abdelsalam et al (2004) found a significantly positive association between firms audited by the Big 4 auditors and the overall quality of corporate Internet reporting ($P = 0.0025$).

5.3.6 The Effect of Ownership Structure:

Evidence from the literature review shows that the relationship between voluntary disclosure practices and ownership structure is significant (e.g. Abdelsalam et al, 2007 and Ajinkya, et al, 2005). Lam et al (1994) and Mok et al (1992) find that the quality of corporate disclosure is associated with ownership structure. According to Lang et al (2002) and Nagar et al (2003), ownership structure also affects investor demand for disclosure. The main reason is that shareholders are not homogenous (Ajinkya et al, 2005). Different shareholders may demand different disclosures (Schipper, 1981; Bradbury, 1991; Craswell and Taylor, 1992).

One group of studies claimed that in a situation where the government owns substantial amounts of shares (or is a block holder), firms have little motivation to disclose voluntary information because the demand for public disclosure from them is weaker than from companies which have a wider ownership (Eng and

Mak, 2003). Furthermore, the ownership of equity capital by large shareholder blocks, e.g., large family and institutional shareholdings, may have control rights through board membership (Shleifer & Vishny, 1997). However, some studies claimed that, once institutions invest in a particular company they are likely to have added incentives to encourage further improvements in disclosure (Ajinkya, et al, 2005; Bushee and Noe, 2000).

Another group of studies claimed that the higher the ownership spread the greater would be the agency problem and this may lead to increased demands for organizational information which can be used to monitor management (Lang et al, 2002 and Nagar et al, 2003). In this respect, Kelton and Yang (2008) predict that voluntary disclosure may be helpful in reducing conflicts between managers and shareholders which arise when a firm's shares are widely held. Ownership structure studies are further discussed below. The following section will follow the same sequence of considering developed countries, developing countries and international studies.

Developed countries studies:

Pichegger and Wagenhofer (1999) conducted a study to examine the factors which could explain the variation in Internet disclosure by 32 Austrian companies in 1997 and 1998 and 30 German companies in 1998. Using regression analysis, Pichegger and Wagenhofer (1999) found a significant positive association ($R = 0.485$) between Austrian Internet disclosure and the percentage of free floating shares, while the German result reveals that there is no significant association ($R = 0.126$) between Internet financial disclosure and the percentage of free float.

In the same year, Ashbaugh et al (1999) studied 290 USA companies identified by Chartered Financial Analysts (CFA) in order to identify the relationship between Internet reporting and ownership structure (shares held by individual investors). By using multivariate logit regression analysis techniques Ashbaugh et al (1999) found that no association exists between Internet reporting and ownership structure ($P < 0.3200$ median of percentage of shares held by individual investors).

Oyelere et al (2003) also conducted a study to examine the factors which could explain the variation in Internet financial reporting (IFR) of a sample of New Zealand companies listed on the Stock Exchange (NZSE) (229 companies). They tested the relationship between the level of Internet disclosure and share spread (the proportion of shares owned by the top 40% of shareholders). Using multivariate analysis, Oyelere et al (2003) found that share spread was consistently negatively related to IFR practices ($P = -0.030$).

One year later, Marston and Polei (2004) examined (based corporate governance theory) the relationship between Internet financial reporting (presentation and content) and free float by German firms (50 companies) between two points in time (2000 and 2003). Free float represents the percentage of company shares which are freely traded on the stock exchange and which are not in permanent ownership. By using regression analysis, Marston and Polei (2004) found that free float is only significant for the 2000 sample, using the normal scores approach ($P = 0.034$).

Ajinkya et al (2005) also investigated (based corporate governance theory) the association between institutional ownership and various properties of management earnings forecasts. These writers expected that firms with a greater percentage of institutional ownership were more likely to issue earnings forecasts, issue forecasts more frequently, more likely to issue specific (precise) forecasts, more likely to issue accurate forecasts, and less likely to issue optimistic forecasts. Using a sample of management's earnings forecasts issued from 1997 to 2002, Ajinkya et al (2005) found that firms with higher institutional ownership are more likely to issue a management forecast ($P = 0.008$), inclined to forecast more frequently ($P = 0.013$), and the forecasts issued tend to be more specific ($P = 0.003$). Additional regression results showed that concentrated institutional ownership is negatively associated with forecast accuracy ($P = -0.0003$) and forecast bias ($P = -0.0003$).

Abdelsalam et al (2007) examined (based corporate governance theory) the impact of ownership structure on the timeliness of corporate Internet reporting by 115 U.K. companies listed on the London Stock Exchange (LSE). Ownership

structure was measured by the number of shareholders (measured by the log of the number of shareholders less the log of the mean number of shareholders of companies), the number of major shareholders (reflects the number of shareholders holding more than 5% of the company's ordinary shares), and block ownership (measured by the proportion if the substantial shareholders held more than 5% of ordinary shares). By using multivariate logit regression analysis techniques, Abdelsalam et al (2007) found no support for a significant association between ownership structure (number of shareholders $P = 0.24$, number of major shareholders $P = 0.18$, and block ownership $P = 0.97$) and the timeliness of corporate internet reporting.

Developing countries studies:

Eng and Mak (2003) examined the impact of ownership structure on voluntary disclosure. Ownership structure is characterized by blockholder ownership and government ownership. Eng and Mak (2003) expected that voluntary disclosure was negatively associated with blockholder ownership and government ownership. A sample of 158 firms listed on the Stock Exchange of Singapore was used. The regression results showed that disclosure score is related to government ownership. Disclosure increases with government ownership ($B = 6.757$, $t = 2.07$). Eng and Mak (2003) also found that the level of disclosure was not significantly related with blockholder ownership ($B = 3.602$, $t = 0.60$).

One year later, in August 2002, Xiao et al (2004) conducted a survey to examine (based corporate governance theory) the relationship between the extent of Internet disclosure and the influence of share ownership by the 300 largest Chinese companies. They classified Chinese companies as regards share ownership into three categories; shares held by government agencies (government ownership), shares held by state-owned corporations (institutional ownership) and shares held by legal persons (individual ownership). The study hypothesised that Internet-based corporate disclosure (ICD) decreased with the proportion of government agencies' ownership while it increased with their proportion of state-owned corporations' ownership and the shares held by legal persons. By using regression analysis, Xiao et al (2004) found that overall

disclosure (P - 7.55) and content disclosure (P -6.83) statistically negatively significant with shares held by government agencies. Shares held by state-owned corporations also found by Xiao et al (2004) negatively insignificantly associated with overall disclosure (P - 3.57), content disclosure (P -3.13), and format disclosure (P - 0.45). Only overall disclosure score (P 5.15) and content disclosure (P 4.72) are statistically significant with shares held by legal persons.

In the same year, Abdelsalam et al (2004) examined the association between Internet financial disclosure and free float by 30 Sensex companies (in India) in July 2004. The study measured free float by the percentage of shares held by outsiders other than founders. By using multivariate regression analysis, Abdelsalam et al (2004) found a significantly positive association between Internet financial disclosure and free float (P 0.014).

Another study examining the annual corporate disclosure (hard copy) of a sample of Saudi companies and government ownership was conducted by Al-Razeen and Karbhari (2004). They examined the relationship between the level of annual disclosure (hard copy) of 68 companies and government ownership. Using the multiple regression model, these writers found a significant association between government ownership and the level of disclosure (P 0,044).

Chiang (2005) examined the relationship between operating performance and corporate governance (ownership structure) in Taiwan's high-tech industry. Chiang's sample (2005) was composed of 225 high-tech companies listed in Taiwan in 2001. Chiang (2005) measured the company operating performance by three independent variables: returns on assets (ROA), returns on equity (ROE), and earnings-per-share (EPS). Chiang (2005) argued (based corporate governance theory) that there is no relationship between the proportion of institutional shareholders (IH) and operating performance. The percentage of shares held by institutional shareholders divided by the outstanding shares was used to measure ownership structure. By using multiple regression analysis, Chiang (2005) found that there was no significant relationship between IH and operating performance ROA (P 0.62), ROE (P 0.74), and EPS (P 0.67). The

results showed that companies only disclose information which is required by the government and related authorities.

Kelton and Yang (2008) examined the relationship between Internet financial reporting (format, content, and total disclosure) and ownership structure (block ownership) by 284 firms traded in the NASDAQ National Market. Blockholders refer to entities holding more than 5% of a firm's outstanding shares. Kelton and Yang (2008) predicted that the level of a firm's Internet-based disclosure was negatively associated with its block ownership. By using regression analysis Kelton and Yang (2008) reported that all of the coefficients of blockholder ownership are statistically significant (format $P = -0.40$, content $P = 0.25$, and total disclosure $P = -0.30$).

The above studies on the association between ownership structure and disclosure of information revealed mixed results. These differences could have been due to the differences in the time periods of the studies or the cultural environment of the countries which they covered. Additionally, the nature of instruments used to measure financial disclosures may also be responsible for the differences in these results.

International studies:

To the best of the researcher's knowledge, only one study has examined the relationship between voluntary disclosure and ownership structure.

Bollena et al (2006) examined the association between Internet financial reporting (IFR) and ownership structure (number of shares available to individual investors). The data used in Bollena et al (2006) study were collected from 270 companies listed in six different countries: Australia, Belgium, France, the Netherlands, South Africa and the UK. Number of shareholders was measured by the number of shares publicly available, divided by the total number of outstanding shares. Bollena et al (2006) argued that (based corporate governance theory) the quality of IR websites is positively related to the proportion of shares available to individual investors. Based on their multivariate analysis, Bollena et al (2006) found no association between Internet financial reporting (IFR) and ownership structure ($P = 0.105$).

5.3.7 The Effect of Board Structure:

Board structure is an important area of financial reporting and several studies have recently examined the association between board structure and corporate disclosures or corporate performance (see, for example, Abdelsalam et al, 2007; Gul and Leung, 2004; Haniffa and Cooke, 2002; Worrell et al, 1997; Finkelstein and D'Aveni, 1994; Brickley et al, 1994; Whittington, 1993; Millstein, 1992; Mallette and Fowler, 1992; Mallette and Fowler, 1992; Rechner and Dalton, 1991; Carver, 1990; Zahra & Pearce, 1989; Eisenhardt, 1989; Weisbach, 1988; Dalton and Kesner, 1987; Chaganti et al, 1985 Fama and Jensen, 1983).

Milne (2006), for example, asserted that it is important to remember that the board has a responsibility to represent the interests of shareholders and one major objective of boards is their control functions. He also mentioned that the board structure refers to the way in which authority and responsibility are separated between the board and management. Milne (2006) and Pound (1995) claimed that the important elements of board structure are: an independent chair (not merely a separation of the roles of chair and CEO, but a chair who is independent and unrelated to management and the company); and independent directors. A board should have independent directors, independent board committees and the capacity to act independently.

Cutting and Kouzmin (2000) claimed that one of the main factors of business failures results from the structure of the board being poorly designed. Hermalin and Weisbach (1998), for example, found that a board of directors often lacks independence from the chief executive officer (or CEO). In this regard, the Cadbury Committee (1992 in May and in December) recommended that large companies separate the roles of CEO and chair of the board (CIMA, 1999; Cadbury Committee, 1992). Due to lack of information about board members' biographies in Saudi Arabia (Al-Moataz, 2003 and Al-Razeen and Karbhari, 2004), the study will review only two themes of board structure (role duality and studies of board size).

Role duality:

CEO duality occurs when the same person holds the positions of both the CEO and board chairperson in a corporation (Rechner and Dalton, 1991). The relationship between corporate disclosure or organizational performance and CEO duality has been debated several times in the literature. One of the earliest studies to examine the relationship between voluntary financial disclosure and role duality was carried by Fama and Jensen in 1983. These writers (1983) found that firms which have one individual who serves as both chairman and chief executive officer/managing director (CEO duality) tends to withhold unfavourable information from outsiders. Forker (1992) and Molz (1988) asserted that there is a significant negative relationship between the existence of a dominant personality and the quality of financial disclosure. Rechner and Dalton (1991) conducted a study to examine the association between CEO duality and organizational performance of a random sample of corporations from the Fortune 500. Rechner and Dalton (1991) found that firms which had independent chair-CEO structures performed better. The relationship between corporate disclosure and CEO duality will be discussed further in the following paragraphs, which will follow the same sequence as in previous sections.

Developed countries studies:

Arcay and Vazquez (2005) conducted a study to examine the factors which could explain the variation in voluntary information disclosure of a sample of Spanish firms listed on the Madrid Stock Exchange (91 companies). They tested the relationship between the level of voluntary information disclosure and CEO duality. Arcay and Vazquez (2005) claimed that (based corporate governance theory) voluntary disclosure is related to the separation of the functions of CEO and chairman. Arcay and Vazquez (2005) used a dummy variable, with a value of one 1 if the chairman and the CEO were not the same person and 0 otherwise. The result was revealed as non-significant between firms which separate the functions of CEO and chairman and their counterparts who combine both posts (P 0.110).

In the UK, Abdelsalam et al (2007) examined the impact of corporate governance characteristics (role duality) on the timeliness of corporate Internet

reporting by 115 U.K. companies listed on the London Stock Exchange (LSE). Abdelsalam et al (2007) used a dummy variable to measure CEO duality. By using multivariate logit regression analysis techniques, Abdelsalam et al (2007) found that role duality ($P = 0.23$) is associated negatively with corporate Internet reporting.

In the following year, Kelton and Yang (2008) examined the relationship between Internet financial reporting (format, content, and total disclosure) and board structure (firm's CEO duality) by 284 firms traded in the NASDAQ national market. The firm's CEO duality was measured by a dummy variable coded "1", if the CEO was also the chairman of the board, and "0" if the two positions were occupied by different individuals. Kelton and Yang (2008) predicted that (based corporate governance theory) Internet financial reporting would be negatively associated with a firm's CEO duality. By using regression analysis, Kelton and Yang (2008) reported that the level of a firm's Internet-based disclosure was negatively associated with its CEO duality (format $P = 0.04$, content $P = 0.02$, and total disclosure $P = 0.03$).

Developing countries studies:

Gul and Leung (2004) examined the links between CEO duality and voluntary corporate disclosures in a sample of 385 Hong Kong listed companies. Gul and Leung (2004) believed that (based corporate governance theory) the disclosure of more corporate information was more likely to be affected by the composition and quality of the board of directors. Gul and Leung (2004) measured CEO duality by a dummy variable coded "1", if the CEO was also the chairman of the board, and "0" if the two positions were occupied by different individuals. The regression analyses of 385 Hong Kong listed companies showed that voluntary disclosure scores were negatively correlated with CEO duality ($P = 0.004$).

In 2005, Chiang (2005) examined the relationship between operating performance and corporate governance (CEO duality) in Taiwan's high-tech industry. Chiang's sample (2005) composed of 225 high-tech companies listed in Taiwan in 2001. Chiang (2005) measured the company operating performance by three independent variables: returns on assets (ROA), returns on equity (ROE), and earnings-per-share (EPS). Chiang (2005) argue that there

is no relationship between the president of the board of directors concurrently serving as the CEO (CEO) and operating performance. The reason might be that the operating performance may be improved as a result of less conflict between the board of directors and the CEO. Chiang (2005) measured CEO duality by a dummy variable coded "1", if the CEO is also the chairman of the board, and "0" if the two positions are occupied by different individuals. By using multiple regression analysis Chiang (2005) found that the president of the board of directors serving also as the CEO was negatively related to operating performance ROA (P 0.00), ROE(P 0.001), and EPS(P 0.006,)

In 2006, Cheng and Courtenay examined the effects of the role of the board of directors (CEO duality) in monitoring and influencing the level of voluntary disclosure made by Singapore listed firms. The sample consisted of 104 firms listed on the Singapore Stock Exchange (SGX) in the year 2000. Cheng and Courtenay (2006) measured CEO duality by a dummy variable coded "1" if the CEO was also the chairman of the board, and "0" if the two positions were occupied by different individuals. By using regression analysis Cheng and Courtenay (2006) found no association between the level of voluntary disclosure and CEO duality (P 1.935).

The overall conclusion based on majority of previous studies in both developed and developing countries is that there is negative relationship between Internet financial disclosure and CEO duality.

International studies:

To the best of the researcher's knowledge, there is no single study which has examined the relationship between voluntary disclosure and CEO duality.

Board size:

Evidence from the empirical studies revealed that there is an association between board size and firm performance (Cheng and Courtenay, 2006; Mathieu et al, 2006; Arcay and Vazquez, 2005; Chiang, 2005; Goilden and Zajac, 2001; Vafeas, 2000; Yermack, 1996; Jensen, 1993; Judge and Zeithaml, 1992; Lipton and Lorsch, 1992; Pearce and Zahra, 1991, 1992; Kosnik, 1990;

Singh and Harianto, 1989; Dunn, 1987; Chaganti, et al, 1985; Mintzberg, 1983; Shaw, 1981; Pfeffer, 1972, 1973). These empirical studies revealed that there is mixed evidence linking board size to corporate performance.

One group of researchers (Arcay and Vazquez, 2005; Chiang, 2005; Vafeas, 2000; Yermack, 1996; Jensen, 1993; Lipton and Lorsch, 1992; Dunn, 1987; Chaganti, et al, 1985; Shaw, 1981) predicted that small board size has a positive association with firm performance (see Chapter 6 for more details). The notion behind this hypothesis is that, first, small boards are more cohesive (Shaw, 1981), more manageable (Chaganti, et al, 1985) and more flexible in the decision-making process than a larger boards (Arcay and Vazquez, 2005). Second, smaller boards monitor the performance of corporate executives better than do larger boards (Yermack, 1996; Lipton and Lorsch, 1992; Dunn, 1987) and firms with smaller boards are valued more highly by the market than are their counterparts with larger boards (Vafeas, 2000).

At the same time, (Cheng and Courtenay, 2006; Mathieu et al, 2006; Golden and Zajac, 2001; Jensen, 1993; Judge and Zeithaml, 1992; Pearce and Zahra, 1991, 1992; Kosnik, 1990; Singh and Harianto, 1989; Mintzberg, 1983; Pfeffer, 1972, 1973) predicted that a board which is too large would be more effective than a small board. The main idea behind this hypothesis is that, first, larger boards help to increase the pool of expertise, diversity of background, knowledge, and intellect available to the board and thus improve the quality of strategic decisions (Mathieu et al, 2006; Kosnik, 1990; Pfeffer, 1972, 1973). Second, they help to reduce CEO domination the board and maintain shareholder interests (Singh and Harianto, 1989). Third, they help the corporation taking important decision to environmental changes (Cheng and Courtenay, 2006; Golden and Zajac, 2001; Judge and Zeithaml, 1992; Pearce and Zahra, 1991, 1992; Mintzberg, 1983). Fourth, mitigate regulatory and external environmental pressures (Mintzberg, 1983; Pfeffer, 1972, 1973).

In addition, empirical evidence regarding the relationship between board size and corporate disclosure is rather limited (e.g. Mathieu et al, 2006; Arcay and Vazquez, 2005; Chiang, 2005). These studies are discussed further below. The

following paragraphs are divided between developed countries and developing countries.

Developed countries studies:

Arcay and Vazquez (2005) examined the extent of voluntary information disclosure by 91 Spanish firms listed on the Madrid Stock Exchange and whether such practice is associated with the size of the board of directors. Arcay and Vazquez (2005) argued that the voluntary information disclosure by Spanish firms is negatively related to the size of the board. Due to the extremely small board size of some Spanish companies, Arcay and Vazquez (2005) used a dummy variable to measure the board size, with a value of one (1) if the size of the board fits within the recommendations of the Olivencia Code (i.e. the number of board members should range from 5 to 15), and zero (0) otherwise. The result revealed that the adoption of good governance practices such as compliance with the recommendations of the Olivencia Code recommendations is not significantly associated with the provision of voluntary information (P 0.718).

One year later, Mathieu et al (2006) examined the impact of a firm's leadership structure (size of the board of directors) on its ability to generate value from loans by examining the market reaction to the disclosure of Canadian bank credit agreements. The study argued (based corporate governance theory) that the market reaction to the disclosure of a debt contract should be stronger for a firm with a small board of directors. Mathieu et al (2006) used a dummy variable to measure the board size, with a value of one (1) if the number of directors of the board exceeded nine and (0) otherwise. A sample of the 122 firms listed on the Toronto Stock Exchange (TSE) used in Mathieu et al (2006) study. By using multivariate analyses Mathieu et al (2006) concluded that leadership structure (size of the board of directors) has a significant impact on firm ability to generate value from loans.

Developing countries studies:

Chiang (2005) examined the relationship between operating performance and corporate governance (board size) in Taiwan's high-tech industry. Chiang's

sample (2005) was composed of 225 high-tech companies listed in Taiwan in 2001. Chiang (2005) measured the company operating performance by three independent variables: returns on assets (ROA), returns on equity (ROE), and earnings-per-share (EPS). Chiang (2005) argued that (based corporate governance theory) there is no relationship between the size of the board of directors (BN) and operating performance. The reason may be that the larger size of the board of directors impeded efficiency. By using multiple regression analysis Chiang (2005) found that there is a negative but insignificant relationship between BN and operating performance measures ROA ($p = -0.56$), ROE ($P = -0.11$), and EPS ($P = -0.43$).

One year later, Cheng and Courtenay (2006) examined the effects of the role of the board of directors (board size) in monitoring and influencing the level of voluntary disclosure made by Singapore listed firms. The sample consists of 104 firms listed on the Singapore Stock Exchange (SGX) in the year 2000. Cheng and Courtenay (2006) argued that there was an association between board size and the level of voluntary disclosure. The results of regression analysis revealed, however, that board size is not associated with the level of voluntary disclosure ($P = 0.656$).

The conclusion from these studies almost always reveals that there is no significant relationship between voluntary disclosure and board size.

International studies:

To the best of the researcher's knowledge, there is no single international study which has examined the relationship between voluntary disclosure and board size.

5.4 Conclusion:

In summary this chapter has offered a review of the empirical studies which have investigated the level of Internet disclosure of various types of information. The notable conclusion of this chapter is the mixed nature of the results. The studies reported different results in different countries. Moreover, this chapter has reviewed a sample of past studies which discussed the most common factors widely believed to affect Internet reporting. For example, while the size of the company is a significant explanatory variable in some studies, in others it is not. The mixed results may be due to the different sampling techniques, different statistical analyses and different countries where studies were conducted. The following chapter will deal with the theories related to the research aims.

Chapter 6: Theoretical Development

6.1 Introduction:

In order to provide further clarification concerning Internet Financial Reporting with regard to its usage and extent, there are some relevant theories which should first be generally reviewed:

- Technology Acceptance Model (TAM)
- Innovation Diffusion Theory (IDT)
- Corporate Governance theory
- Agency Theory
- Signalling Theory
- Legitimacy Theory
- Innovation Theory

First the chapter will discuss theories related to the questionnaire survey and next discuss theories related to the content of websites (disclosure index).

6.2 Theory related to questionnaire:

Although some theories relate to the website content, the TAM and IDT theoretical constructs are related to the questionnaire survey. Both the Technology Acceptance Model and Innovation Diffusion Theory will be discussed in this chapter, in particular the concepts of these two theories along with their use and development; and this chapter will conclude by discussing in more detail their relationship with the research questionnaire.

6.2.1 Technology Acceptance Model (TAM):

The technology acceptance model (TAM) is often used by both information systems (IS) researchers and practitioners to gain a better understanding of the adoption and use of information systems (Ing-Long and Jian-Liang, 2005; Slyke et al., 2003; Gefen, 2003; Teo, 2003; Leslie, 2003; Rose and Straub, 1998; Phillips et al, 1994; Davis et al, 1989). The general model of TAM is presented in Figure 6-1. TAM was developed by Davis (1989) to explain computer-usage behaviour. Davis (1989: 327) asserted that "The goal of TAM was to provide an explanation of the determinants of computer acceptance that is generally capable of explaining user behaviour across a broad range of end-user

computing technologies and user populations, while at the same time being both parsimonious and theoretically justified”

The two main determinants of the TAM are perceived usefulness and perceived ease of use.



Figure 6.1: Technology Acceptance Model (TAM)
(source: Davis et al., 1989)

This diagram shows that the perceived usefulness and perceived ease of use have a great affect on technology acceptance behaviour. Davis (1989: 329) defined perceived usefulness as:

“the prospective user’s subjective probability that using a specific application system will increase his or her job performance within an organisation context.”

Perceived ease of use refers to

“the degree to which the prospective user expects the targets system to be free of effort” (Davis et al., 1989: 335).

If users find an application which is perceived to be easier to use than another, then it is more likely to be accepted.

TAM has been extended by a number of researchers in an attempt to improve its ability to predict use. The model was extended to include constructs such as gender (Gefen and Straub, 1997), situational involvement (Jackson et al., 1997), long-term perceived usefulness (Chau, 1996) and self-efficacy (Fenech 1998; Igbaria and Iivari, 1995). The model was also augmented to fit into different contexts. For example, Davis et al (1989) conducted a study to compare the theory of reasoned action (TRA) and TAM. Analysing the responses of 107 users, Davis et al (1989) found that, first, people's computer use can be predicted reasonably well from their intentions. Second, perceived usefulness is a major determinant of people's intention in using computers. Third, perceived ease of use is significant secondary determinant of people's intentions in using computers.

In their study, Phillips et al (1994) conducted an empirical study to investigate technology adoption using the TAM model. Phillips et al (1994) analysed the responses of 303 Chinese government officials, managers and engineers. The results from a survey showed that cultural affinity has a significant and positive influence on TAM through perceived ease of adoption. Straub et al (1995) also compared TAM across cultures. After comparing the TAM model in 3 different countries, Japan, Switzerland and the USA, the authors found that the model did not hold for all cultures.

Igbaria et al (1997) conducted a study to identify the factors affecting personal computing use. Results from a survey of 358 users in small firms in New Zealand indicated that perceived usefulness had a strong effect on system use and perceived ease of use was a dominant factor in explaining perceived usefulness and system use. Rose and Straub (1998) conducted a study to predict the general use of IT in the Arabic World. Rose and Straub (1998) found that TAM tested successfully in Arab nations.

6.2.2 Innovation diffusion theory (IDT):

Another theory which is often associated with research on technology innovation is innovation diffusion theory (IDT). IDT was widely used researched and applied in disciplines such as anthropology, sociology, education, communication, marketing, etc. (Kevin et al, 2003; Srinarayan, and Rai, 2003; Thompson, and Yujun Pian, 2003; Mun and Yujong, 2003; Palaniswamy, 2002; and Rogers, 1995, 1983, 1962). Most of the innovation studies in IDT research concern technology innovation.

Diffusion was defined as:

"The process by which an innovation is communicated through certain channels over time among the number of a social system" (Rogers, 1995: 15).

An innovation is

"an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 1995:16).

An innovation generates uncertainty and uncertainty motivates an individual or another unit of adoption to seek more information about alternatives. IDT aims to explain, among many other things, the process of the innovation decision process, the determining factors of the rate of adoption and different categories of adopters. It helps to predict the likelihood of adoption and the rate of adoption of an innovation (Mun and Yujong, 2003).

One of the major contributions of IDT is the innovation decision process, which starts with knowledge about the existence of the innovation and ends with a confirmation of the decision to adopt/reject (Kevin et al, 2003). Five stages are involved in the innovation decision process (see Figure 6.2). In the Knowledge stage, users are first exposed to the innovation and gain initial understanding of it. In the Persuasion stage, the decision making unit (i.e. users or managers) forms an attitude toward the innovation. In the Decision stage, the decision to adopt/ reject is reached. In the Implementation stage, users actually use the innovation. Finally, in the Confirmation stage the adoption/ rejection decision is reconfirmed or reversed.



Figure 6.2: Innovation Decision Process
(source: Rogers, 1995)

Another major contribution of IDT is the set of innovation attributes which it provides. These innovation attributes, perceived by individuals, help to explain the different rates of adoption. The attributes include relative advantage, compatibility, complexity, trialability, visibility and observability (Rogers, 1983). The five attributes are reported to explain 49 to 89 percent of the variance in rates of adoption (Rogers, 1995). Figure 6.3 depicts the relationship between the five attributes and rate of adoption of innovation. A brief definition of these attributes is given below:

Relative Advantage: the degree to which the innovation is superior to the practice which it supersedes.

Compatibility: the degree to which the innovation is consistent with the existing facilities and practice.

Complexity: the degree to which the innovation is easy to learn and use.

Trialability: the degree to which one can experiment with the innovation before making the adoption/rejection decision.

Observability: the degree to which the results of the adopting of the innovation is observable to others.



Figure 6.3: The relationship between Perceived Attributes Of Innovation and Rate of Adoption of Innovation.
(Source: Rogers, 1995)

6.2.3. Relation between the two theories and the present research:

The reason why TAM and IDT are chosen as the bases for the questionnaire survey is that they have been proven successful in predicting and explaining system use. Furthermore, using TAM as the basis for studying the impact of the Internet is a highly valid approach, as shown by the numerous empirical studies carried out before with this approach, such as E-mail (Gefen and Straub, 1997); WWW (Fenech, 1998); and Electronic business adoption by European firms (Kevin, et al, 2003).

Moreover, IDT is a theory which has gone through a long history of research in a great variety of disciplines, including sociology, anthropology, marketing and information systems. This theory helps us to understand how and why an innovation is diffused into a social system. In addition, the Internet financial reporting is making an increasing impact on investors' daily jobs, to the extent that it is no longer considered an innovation. Moreover, IDT will help us understand how and why the innovation of IFR has become diffused into our social system.

Observation from previous discussions suggests that TAM and IDT reconfirm each other's finding and this again renews the author's confidence in the validity and reliability of these theories. On the basis of this relationship, TAM and IDT

are used as complements to construct the basis for the questionnaire survey (see Figure 6.4).

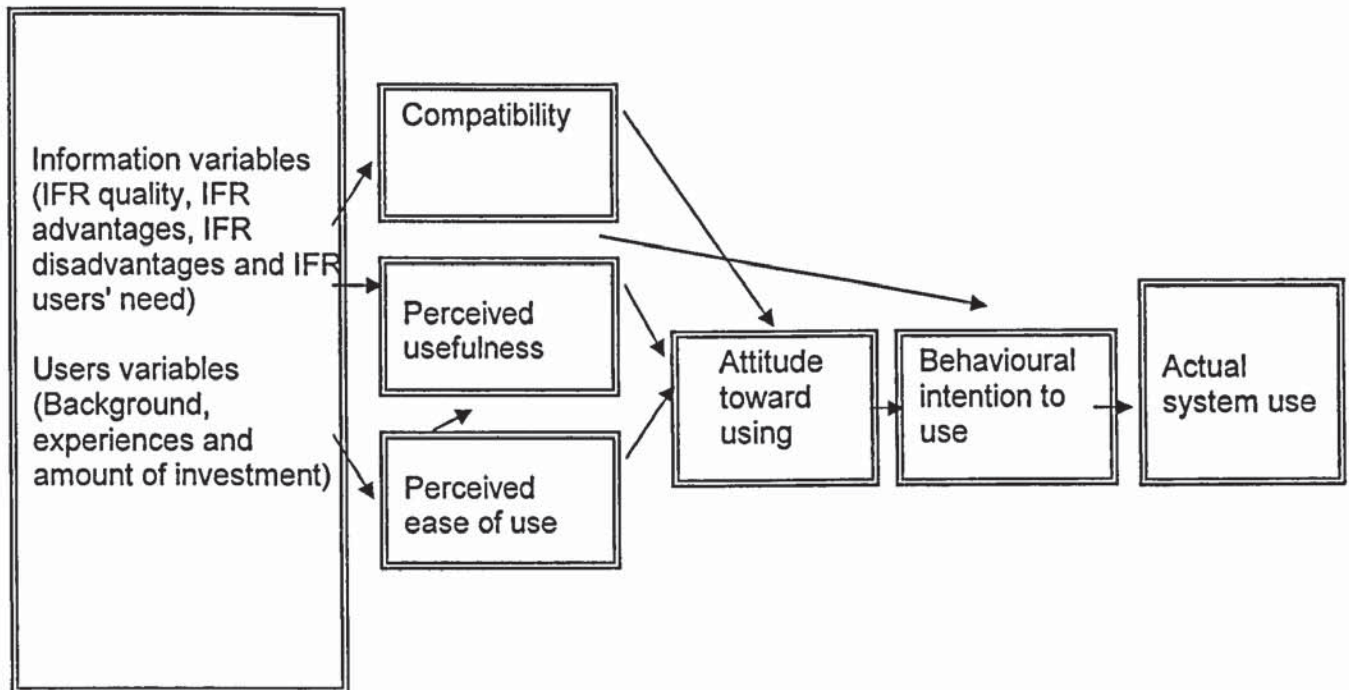


Figure 6.4: Basis of the Questionnaire Model

6.3 Theory related to companies' characteristics affecting the website content:

Four economics-based theories are commonly used in the accounting literature to analyse disclosure choices: corporate governance theory; agency theory/signalling theory; legitimacy theory; and innovation theory.

6.3.1 Corporate Governance:

The Blue Ribbon Committee (1999) mentioned that in the last three decades there have been many debates on corporate governance. The issues discussed ranged from fundamental arguments over its relevance to a practical discussion of how to transform the theory from a good idea on paper to a reality in practice (Blue Ribbon Committee, 1999). A review of the literature shows, however, that corporate governance is not a new phenomenon, but one which has certainly been in use since companies began to take their present form (Cadbury, 2002). Vinton (1998) mentioned that the corporate governance issue actually dates back to the time when limited liability corporations started to emerge in the nineteenth century and has since then raised the need for proper legislation and regulations.

Corporate governance is defined as the relationship between various participants (the chief executive officer, management, shareholders and employees) in determining the direction and performance of firms (Monks and Minow, 1995). Corporate governance may be broadly defined as the manner in which companies are controlled and in which those responsible for the direction of companies are accountable to the stakeholders of these companies (Dahya et al, 1996). Gerard Charreaux (1997) defined corporate governance as "all the organizational mechanisms which have the effect of bounding the powers and of influencing the decisions of the managers, in other words, the mechanisms which 'govern' their behaviour and define their discretionary space". Arthur Levitt, former chairman of the Securities and Exchange Committee, defined corporate governance as "the relationship between the investor, the management team and the board of directors of a company" (Levitt, 2002). Good corporate governance exists when those groups communicate openly and honestly (Levitt, 2002). Mardjono (2005) defined corporate governance as

actually dealing with the “duties and responsibilities of a company’s board of directors in managing the company and their relationships with the shareholders of the company and the stakeholder groups”. Milne (2006) identified three elements for a good corporate governance structure: board structure, compensation practices and shareholder rights. Milne (2006) claimed that corporate governance was not simply a statement by a company of how it intends to behave, but by investors looking at the way in which it does behave – in potential and performance. This study will focus on two themes of corporate governance: ownership structure and board structure.

6.3.1.1 Ownership structure and voluntary disclosures:

Prior research suggests that shareholders are not homogenous (Ajinkya et al, 2005). Different shareholders may demand different disclosures (Schipper, 1981; Bradbury, 1991; Craswell and Taylor, 1992). Lam et al (1994) and Mok et al (1992) find that the quality of corporate disclosure is associated with ownership structure. The higher the ownership spread the greater would be the agency problem (Watts, 1986). Agency theory (Watts, 1986 and Jensen & Meckling, 1976) assumes that where there is a separation of ownership and control of a firm, the potential for agency costs arises because of conflicts of interest between the contracting parties (management and shareholders). Hossain et al (1994) expected that potential conflicts of interest between contracting parties are greater in companies with widely held shares than in companies with more closely held shares because investors with a small percentages of shares have less power to influence the decisions of the management. Consequently, voluntary disclosure is more likely in firms with a dispersed ownership structure to allow investors to monitor the management better and to show that the management is acting in the interest of the owners. Studies of shareholder structure have revealed that there is a positive relationship between ownership dispersion and the monitor’s (shareholder’s) incentives to intervene in firm management (Leftwich et al, 1981).

Furthermore, Abdelsalam et al (2004), for example, suggested that widely owned firms may attempt to reduce agency and political costs by providing more voluntary disclosure. In turn, to alleviate this loss, firm management

voluntarily undertakes various actions, including disclosure and submission to monitoring (Abdelsalam et al, 2007; Haniffa and Cooke, 2002; Chau and Gray, 2002; Burkart et al, 1997; Mitchell et al, 1995; McKinnon and Dalimunthe, 1993). Moreover, Abdelsalam et al (2004), Pirchegger and Wagenhofer (1999), and Oyelere et al (2003) provided evidence of a positive association between the percentage of free float share capital and the quality of corporate internet reporting in India, Austria and New Zealand, respectively. Marston and Polei (2004) identified a significant relationship between free float and the quality of corporate internet reporting for German companies in the year 2000 (but not for 2003).

Marston and Polei (2004, p 294) mentioned that "Investors who own only a small percentage of shares in a company have limited access to information about the enterprise. It can be assumed that these investors will use the Internet to gather firm-specific information because data from other sources are more difficult to obtain. Consequently, it is likely that firms with a more dispersed ownership of shares will disclose more information on the Internet to provide their shareholders with the necessary information".

Fama and Jensen (1983) also indicated that where share ownership is widely held, the potential for conflicts between principal and agent was greater than in more closely held companies. As a result, voluntary information disclosure is likely to be greater in companies with wide diffusion of ownership, so that principals can effectively monitor that their economic interests are optimized and agents can signal that they are acting in the best interests of the shareholders (Fama and Jensen, 1983). Burkart et al (1997) also highlighted the view that companies with large ownership diffusion are expected to disclose more information than companies whose shares are held by its managers or a few shareholders.

Chau and Gray (2002) provide support for the agency theory-based hypothesis that there is a positive association between wider ownership and the extent of voluntary disclosure. Haniffa and Cooke (2002) also claimed that diffused ownership and the type of equity ownership may be important variables in

explaining the variability in the level of disclosure. Abdelsalam et al (2007) found that companies with more shareholders provide more timely information. However, McKinnon and Dalimunthe (1993) and Mitchell et al (1995) both found weak support for the hypothesis that increased ownership diffusion increases the disclosure of segment information.

Previous studies also suggested a negative association between the level of disclosure and block ownership (Abdelsalam et al, 2007; Ajinkya, et al, 2005; Eng and Mak, 2003; Chau and Gray, 2002; Bushee and Noe, 2000; Schadewitz and Blevins, 1998; El-Gazzar, 1998; Schadewitz and Blevins, 1998; Shleifer and Vishny, 1997; and Graves and Waddock, 1994). Shleifer and Vishny (1997), for example, argued that family controlled companies may be weaker than non-family controlled firms in terms of the disclosure of comprehensive financial information, because controlling family members who hold a substantial number of outstanding shares will have direct access to the firm's financial information.

Moreover, Marston and Polei (2004, p 294) mentioned that "investors with large equity stakes in a company can obtain information about the company from internal sources. They do not rely on published information only. It can be concluded that more closely held companies will disclose less information on the Web because their large investors can access internal sources of information". Chau and Gray (2002) also found that family or concentrated ownership was likely to be associated with lower levels of disclosure. Moreover, Eng and Mak (2003) claimed that, in a situation where the government owns substantial amounts of shares, firms have little motivation to disclose information voluntarily because the demand for public disclosure from them is weaker than from companies which have a wider ownership. Furthermore, government companies may place a high priority on consequences such as maintaining social order and effecting wealth redistribution (for example by employing more workers) other than efficiency or profitability.

However, Graves and Waddock (1994) found a positive significant relationship between corporate social performance (i.e., employee relations, environmental

concern and the treatment of women) and the number of institutions holding the shares of a company. El-Gazzar (1998) argued that large institutional ownership may induce a higher level of voluntary disclosure. Bushee and Noe (2000) also found that institutions preferred to buy stock in firms which have superior disclosure or have experienced sustained disclosure increases. Moreover, Ajinkya et al (2005) claimed that once institutions invest in a particular company they are likely to have added incentives to encourage further improvements in disclosure. These writers documented the fact that Institutions desire and demand more disclosure.

6.3.1.2 Board structure and voluntary disclosures:

Modern enterprises grew in size and complexity. Shareholders are not involved in the management and control of the corporation, but delegate such responsibilities to the board of directors to ensure goal congruence between shareholders' interests and management actions (Baysinger and Hoskisson, 1990). Thus board of directors has been under scrutiny in the corporate governance literature (Cheng and Courtenay, 2006; Mathieu et al, 2006; Arcay and Vazquez, 2005; Chiang, 2005; Golden and Zajac, 2001; Vafeas, 2000; Yermack, 1996; Jensen, 1993; Judge and Zeithaml, 1992; Lipton and Lorsch, 1992; Pearce and Zahra, 1991, 1992; Kosnik, 1990; Singh and Harianto, 1989; Dunn, 1987; Chaganti et al, 1985; Mintzberg, 1983; Shaw, 198; Pfeffer, 1972, 1973). A primary focus of previous studies has been the structure of boards and its effects on the performance of significant board functions (Arcay and Vazquez, 2005; Goodstein et al, 1994). However, empirical evidence regarding the relationship between board structure and corporate disclosure is rather limited. Due to lack of information about board members' biography in Saudi Arabia (Al-Moataz, 2003 and Al-Razeen and Karbhari, 2004), the study will review only two themes of board structure (role duality and board size studies).

6.3.1.2.1 Role duality:

CEO duality occurs when the same person holds both the CEO and board chairperson positions in a corporation (Rechner and Dalton, 1991). The relationship between corporate disclosure or organizational performance and CEO duality has been debated in the literature by several researchers. Many theoreticians agree that one individual should not simultaneously hold the role of CEO and board chairperson positions (Dalton and Kesner, 1987; Mallette and Fowler, 1992; Zahra and Pearce, 1989). These researchers argued that, first, consistent with governance theory arguments, checking and balancing the powers of top management are diminished or altogether eliminated when there is CEO duality, because power is concentrated in one individual (Gul and Leung, 2004; Haniffa and Cooke, 2002; Chaganti et al, 1985). The person who occupies both roles would tend to withhold unfavorable information to outsiders. Forker (1992) asserted that a dominant personality in both roles poses a threat to monitoring quality and is detrimental to the quality of disclosure. Indeed, according to Mallette and Fowler (1992), duality may limit a board's ability to monitor the organization. Abdelsalam et al (2007) provided additional support for separation with this argument. They (2007, p15) asserted that "when the CEO is also chair, board effectiveness in the performance of its governing function may be compromised since the CEO may be capable of controlling board meetings, selecting agenda items, and selecting board members ."

Second, CEO duality indicates a potential for management to behave opportunistically at the shareholders' expense (Eisenhardt, 1989; Fama and Jensen, 1983; Weisbach, 1988). Third, grounded in agency theory, role duality represents a potential for conflict of interests. Fama and Jensen (1983), for example, pointed out that CEO duality signals the absence of separation of decision control and decision management. This is because vesting the power of the CEO and that of the chairman of the board in one person creates a strong individual power base, which could constrain the board's ability to exercise effective control (Worrell et al, 1997; Finkelstein and D'Aveni, 1994; Brickley et al, 1994; Whittington, 1993; Millstein, 1992; Mallette and Fowler, 1992; Carver, 1990). Fourth, Firms with CEO duality are considered to be more managerially dominated (Molz, 1988). However, it is also argued that a role duality structure

promotes better communication and information flow between management and the board of directors, and that better communication can lead to better decision making by the board (Mathieu et al, 2006; Brickley et al, 1997; Baliga and Moyer, 1996).

The above reasoning suggests that firms with CEO duality are more likely to be associated with lower levels of voluntary disclosure, since the board is less likely to be effective in monitoring management and ensuring a higher level of transparency. Such lower levels of transparency might be used to conceal fraud and incompetence.

6.3.1.2.2 Board size:

In terms of board performance, prior studies have pointed to a number of ways in which board size enhances the institutional and governance functions of the board. There is mixed evidence in the empirical literature linking board size to corporate performance. One group of researchers (Arcay and Vazquez, 2005; Chiang, 2005; Vafeas, 2000; Yermack, 1996; Jensen, 1993; Lipton and Lorsch, 1992; Dunn, 1987; Chaganti, et al, 1985; Shaw, 1981) predicted that small board size have a positive association with firm performance because of less conflict between members of the board of directors (agency theory)

Proponents of this view argued that first, smaller decision-making groups are more cohesive (Shaw, 1981). In this context, Chaganti et al (1985) point out that a smaller board is more manageable than a larger board. In a similar vein, Arcay and Vazquez (2005) observed that by restricting the number of directors, the exchange of ideas between board members would be enhanced, and so would flexibility in the decision-making process.

Second, Dunn (1987) argued that smaller boards monitor the performance of corporate executives better than do larger boards. Lipton and Lorsch (1992) found that the lack of CEO monitoring and other coordination problems of the board increased with the number of directors. Jensen (1993) concludes that small boards are more effective in monitoring the CEO and are tougher for the CEO or the chairman to manipulate. Similarly, Yermack (1996) and Vafeas

(2000) reported that firms with smaller boards are valued more highly by the market than are their counterparts with larger boards. However, some researchers (e.g. Finkelstein and D'Aveni, 1994; Chaganti et. al, 1985; Pfeffer, 1972) maintained that CEOs may be able to dominate a smaller board through alternative methods of influence. John and Senbet (1998) in their study were consistent with this notion. Empirically, John and Senbet (1998) found that the board's monitoring capacities increase as the number of members on the board increases. Furthermore, Chiang (2005) claimed that the decision-making precision is reduced if the number of directors is too small because there may not be adequate discussion of the issues involved.

With dispersed opinions and non-cohesiveness among viewpoints, a board which is too large would be more effective than one which was too small (Cheng and Courtenay, 2006; Mathieu et al, 2006; Goilden and Zajac, 2001; Jensen, 1993; Judge and Zeithaml, 1992; Pearce and Zahra, 1991, 1992; Kosnik, 1990; Singh and Harianto, 1989; Mintzberg, 1983; Pfeffer, 1972, 1973). First, it has been argued that larger boards help to increase the pool of expertise, diversity of background, knowledge, and intellect available to the board and thus improve the quality of strategic decisions (Mathieu et al, 2006; Pfeffer, 1972, 1973). Kosnik (1990), for example, argued that diversity of background among the members of a board lessens the risk of narrow-mindedness in a board's evaluation of executive proposals. Second, Singh and Harianto (1989) argued that larger boards help to enhance corporate governance by reducing CEO domination and making it more difficult for the CEO to build a broad agreement within the board to take actions which might not be in shareholders' interests.

Third, larger boards might help the corporation to take important decisions over environmental changes (Cheng and Courtenay, 2006; Goilden and Zajac, 2001; Judge and Zeithaml, 1992; Pearce and Zahra, 1991, 1992; Mintzberg, 1983). Board size is also found to be related to strategic change in an organization (Cheng and Courtenay, 2006). However, Olson (1982) pointed out that larger boards increased the difficulty of reaching a consensus on critical decisions, specifically, taking timely strategic action in response to critical environmental

changes. Fourth, corporation responsiveness to regulatory and external environmental pressures was what originally led to the creation of boards which were comparatively large, and composed of members with diverse occupational and professional backgrounds (Mintzberg, 1983; Pfeffer, 1972, 1973).

However, large boards may face a number of barriers in reaching a consensus on important decisions. These barriers may be a function of a number of factors. First, larger decision-making groups are less cohesive (Judge and Zeithaml, 1992; Jewell and Reitz, 1981; Shaw, 1981). Chiang (2005), for example, mentioned that efficiency is reduced if the number of directors is too large because there is an increased difficulty in reaching agreement regarding decisions. Second, larger groups are more difficult to coordinate, due to the large number of potential interactions among group members (Jensen, 1993; Lipton and Lorsch, 1992; Dunn, 1987; Chaganti et al, 1985; Gladstein, 1984). It has been argued that larger board size may also make it difficult for the members to use their knowledge and skills effectively, due to problems of coordinating the contributions. The board thus becomes more symbolic and less a part of the management process (Chiang, 2005; Hermalin and Weisbach, 2001). Finally, larger groups are more likely to develop factions and coalitions which can increase group conflict (O'Reilly et al, 1989). These special interests may attempt to promote their own agenda, rather than working to fulfill the goals of the collective group.

Finally, it is worth mentioning that there are a number of different models of corporate governance. The Anglo-Saxon model, mainly in the US and UK, is characteristically different in corporate control by laying more stress on the market and possibly less on the board. A recent trend in corporate governance in the UK and the US is the reorientation of boards of directors towards shareholder interests. This has been given impetus by the increasing role of institutional investors who, through their intense scrutiny, are exerting pressure on companies regarding shareholder returns. The Continental European model, in contrast, focuses primarily in corporate control on the impact of shareholders on managerial decision-making, via the board of directors, giving a marginal role to the market. In the Germanic countries, a two-tiered board structure

institutionally separates management from the supervisory function. In Japan, the system has traditionally been characterized by large associations of companies reasonably free from external monitoring and acting on a foundation of internal consensus. In the Latin countries (e.g. Italy and Spain), wealthy families have owned substantial parts of public companies. Close family links and relationships underpin ethnic Chinese businesses and corporate life across South Asia (Arnoud et al., 2005; Maug, 1998; and Jensen & Warner, 1988). In Saudi Arabia, unitary boards consisting of executive and non-executive directors are similar in appearance to those in the UK but with major differences as a result of the power of personal and family relationships.

6.3.2. Agency theory:

As there is some overlap between corporate governance theory and agency theory, agency theory will be reviewed only in summary. Agency theory explains how best to organize relationships in which one party (the principal) determines the work, which another party (the agent) undertakes (Jensen and Meckling, 1976). Agency theory argues that there is a potential conflict of interest between managers and investors, due to a separation of ownership from control (Denis, 2001). Shareholders are interested in increasing return on investment and security prices, while managers desire to maximize their total compensation (Firth, 1980). As a result of this potential conflict, shareholders incur costs from monitoring agency contracts with management and these costs decrease managers' compensation. Thus, agents may have an incentive to try to convince shareholders that they are acting optimally and may voluntarily disclose information as a means of achieving this (see for example Hossain et al., 1995; Cooke 1989a,b, 1991, 1992; Chow & Wong-Boren, 1987; and Firth, 1980).

The value of this financial reporting depends upon its perceived credibility. Previous studies identify two mechanisms to increase the credibility of financial statement disclosures (Healy and Palepu, 2001; Verrecchia, 2001). First, disclosure credibility will increase if a third party provides assurance about the quality of the disclosure. Agency theory argues that audits provide an information role and an insurance function and enhance the credibility of

financial information disclosures (Dye, 1993). Agency theory also suggests that auditing helps to alleviate the conflicts of interest between management and shareholders mainly because they have more to lose from damage to their reputation. It has been argued that the larger audit firms have a stronger incentive to maintain their independence and to impose more stringent and extensive disclosure standards (Xiao et al., 2004; Hassan et al, 1999; Lennox, 1999; Hossain et al, 1995; Wallace et al, 1994; Malone et al., 1993; and DeAngelo, 1981). Disclosure variation between firms audited by the Big 4 and non Big 4 firms may be caused by the former group's tending to be independent of clients' pressure to limit disclosure so as to maintain their reputation. Leftwich (1983) found that lenders consider audit opinions to enhance the credibility of financial statements. Bankers, for example, require an audit of their clients, even private companies which are not legally required to have their financial statements audited.

Second, agency theory predicts that if the production costs of voluntary financial disclosure costs are high, then large firms are more likely to have the resources to adopt such a policy. Skinner (1994) claimed that there is a positive relationship between wages and reliable financial reporting. If shareholders are looking for good financial reporting then compensation should be increased, dependent on managers' performance, but they should not be paid fixed wages regardless of the quality of their work (Skinner, 1994). Chow and Wong-Boren (1987) asserted that financial disclosure is a technique to mitigate this conflict to some extent and allow owners to monitor employment contracts with their managers. High-quality reporting will enhance the reputation of a manager and a good reputation should result in higher compensation (Chow and Wong-Boren, 1987). As a result, large firms expect to disclose more information than smaller firms, to reduce the conflict between owners and managers (Skinner, 1994). Large firms generally have a diverse product range and more complex distribution networks than smaller firms. In addition, large, more complex management information systems and databases are required for management control purposes (Skinner, 1994). Consequently, disclosure costs may be generally lower for larger firms. Moreover, a large firm has more need than a small one for external funds (Oyelere et al., 2003). Therefore there will more

potential conflict among the owners, creditors and managers of a large firm and information disclosure may be used to decrease agency costs and to reduce information asymmetries between companies and fund providers (Oyelere et al., 2003). Consequently, big and profitable firms are more likely have resources to hire reliable auditor and managers.

6.3.3. Signalling theory:

Signalling theory was initially developed by Spence (1974) to explain uncertainty in the labour market and consumer behaviour. It has been applied to the financial reporting literature to help understand accounting policy decisions (Healy and Palepu, 1995; Morris, 1987) and the voluntary disclosure of financial information (Healy and Palepu, 2001; Skinner, 1994; and Trueman, 1986). In consumer behaviour, signalling theory tackles the problem of information asymmetry in situations in which several firms are selling goods/services of unequal quality (Watts & Zimmerman, 1986). The sellers know better the actual quality of the goods/services being sold than buyers do (Watts & Zimmerman, 1986). Without additional information buyers cannot differentiate between low and high quality goods/services. Consequently, a seller of high-quality goods has an economic motivation to signal to the marketplace that its products are not of low quality (Spence, 1973). To be efficient, the signal should be beyond the means of a low-quality firm to duplicate (Spence, 1973). To give an example, in the market for used cars, customers often cannot distinguish high quality from low (Akerlof, 1970). Thus, a high-quality dealer offers a warranty but a dealer in low quality used cars is unable to provide a warranty since it would entail a high cost to his firm (Morris, 1987).

In financial markets the signalling theory mainly attempts to explain a firm's motivation to disclose voluntarily to the capital market (Verrecchia, 2001; and Healy and Palepu, 1995, 2001). Verrecchia (2001) argued that managers have more knowledge about the company and its future than investors do. In this case, managers of higher quality firms will wish to distinguish themselves from those of lower quality firms and, through voluntary disclosures (signals), private

information about their firms (Verrecchia, 2001). As a result, signalling theory suggests that there is an association between company profitability and voluntary information (Xiao et al, 2004; Marston, 2003; Craven and Marston, 1999; Deegan and Hallam, 1991). For example, Singhvi & Desai (1971) argued that managers, if company's profit margins are high, will wish to signal their quality to investors by disclosing more voluntary information. Inchausti (1997) and Wallace et al., (1994) revealed that managers of very profitable firms will disclose voluntary information in order to support the continuance of their positions and compensation arrangements.

Moreover, Verrecchia, (2001) claimed that, in order for high-quality firms to attract investors, management needs to convince investors that their reporting is indeed of high quality by using high quality accounting standards and having their stock listed on a high quality exchange. More extensive voluntary disclosures and a wider dissemination of financial information can also create an impression of greater transparency, which may be particularly important for the stock market (Verrecchia, 2001). Additional disclosure may help the listed companies to attract new shareholders, thus enabling companies to maintain a healthy demand for shares with a liquid market. Supporting this idea, Malone et al., (1993); Wallace et al (1994) Cooke (1998); Hassan, (1999); Craven and Marston (1999) and Ferguson et al (2002) find that firms which are quoted on a stock exchange make more information disclosures.

Eccles et al., (2001) asserted that if managers are to successfully signal quality, the signal must be credible. The credibility of the firm's financial statements is enhanced when the firm hires a brand name auditor (King and Schwartz, 2001; Healy and Palepu, 1995, 2001; Titman and Trueman, 1986). For example, Titman and Trueman (1986) and Verrecchia, (2001) suggested that the credibility of a firm's financial statements is enhanced when the firm hires a brand name auditor or applies high quality accounting standards (Verrecchia, 2001). DeAngelo (1981), O'Keefe, and Simunic and Stein (1994) claimed that the large audit firms (the Big 4) offer high quality audits because they have the resources to perform comprehensive audits and less motivation to compromise on audit quality. Thus, a clean audit opinion from a large audit firm signals that

the financial statements are reliable and so reduces the cost of a firm's capital. Creswell and Taylor (1992) revealed that a firm's choice of auditor is likely to be associated with the decision to disclose more or less information.

Moreover, signalling theory explains and predicts the clear relationship between industry and voluntary disclosure (Xiao et al, 2004; Craven and Marston, 1999; Lymer, 1997; Wildstrom, 1997; Inchausti, 1997; and Marston and Shrides, 1996;). Cooke (1991) believed that there may be historical reasons why some industries may disclose more voluntary information than others, perhaps because some industries have a definite public profile. Cooke (1991) suggested that, if there is one dominant firm in an industry which has high levels of disclosure, other companies in the industry may follow. Watts and Zimmerman (1986) claimed that if a firm does not adopt the same corporate reporting strategy as another's from the same industry, it could be interpreted by the market as a signal of "bad news".

6.3.4. Legitimacy theory:

Many authors have discussed voluntary and social disclosure practices within the theoretical framework of legitimacy theory (e.g. Wilmshurst & Frost 2000; Deegan & Gordon, 1996; Tilt, 1994; Patten, 1992; Guthrie & Parker, 1989; Tinker & Neimark, 1987; and Hogner, 1982). Dowling and Pfeffer (1975) suggested that legitimacy theory is useful in analysing corporate behaviour. Legitimacy theory explains that external factors influence corporate management so that it seeks to legitimise its activities. The theory provides an explanation of management's motivation to disclose environmental information and do so voluntarily.

Deegan (2000: 313) asserted that:

'Organisations continually seek to ensure that they operate within the bounds and norms of their respective societies, that is, they attempt to ensure that their activities are perceived by outside parties as being 'legitimate'.

Gray et al (1997) believed that by the voluntary disclosure of certain information, a firm's managers hope that monitoring and other costs will be reduced.

Legitimacy theory predicts that voluntary disclosure will vary with different corporate characteristics, such as size, performance, industrial sector and listing status. For example, Clarke and Gibson-Sweet (1999) stated that managers of bigger companies and firms in specific sectors with a high public presence use their annual reports to disclose more and higher quality information to capitalise their investments in the community. The same result was confirmed by Toms (2000): the larger the firm and the more controversial the sector in which the organisation operates, the higher the quality of information disclosed. This is because larger firms are subject to more public and regulatory scrutiny (Watts and Zimmerman, 1986) and thus are likely to voluntarily disclose more information to muster public support for reducing political costs and to raise capital (Ettredge et al, 2002; Lang and Lundholm, 1993; and Chow and Wong-Boren, 1987). Debreceeny et al (2002) and Oyelere et al (2003) revealed that larger firms have a stronger incentive to enhance their corporate reputation and public image, as they are more publicly visible. Thus increased voluntary disclosure will reduce governmental intervention. Further, it was argued (Ng & Koh, 1994) that profitable companies, which are particularly subject to public scrutiny, may apply self-regulation mechanisms (such as voluntary disclosures) to try to avoid external regulation. Internet reporting may be one form of such disclosure.

6.3.5. Innovation theory:

The literature on innovation has defined innovation from the business point of view as: "a development and creation of new or improved, in consumer understanding, products or services and impose new consumer needs or offer solutions for existing needs" (Xiao et al, 2004).

Previous studies have identified three mechanisms of innovation change (Xiao et al, 2004; Doyle, 1998; Abrahamson, 1991; DiMaggio and Powell, 1983). First, external force: in this case a company is forced to implement an innovation irrespective of its benefit (in financial reporting this could be government legislation). Second, the fashion phenomenon: this relates to companies imitating trend-setting organizations, such as consulting firms (e.g. auditing

firms) and business schools which, although lacking coercive power, are highly capable of enticing companies to adopt an innovation. The final mechanism relates to firms following earlier fads adopted from other firms in the same sector or location to reduce uncertainty and to appear legitimate.

From the above discussion it can be seen that there is considerable overlap between these theories.

6.4 Conclusion:

In conclusion, the seven theories discussed in this chapter provide strong theoretical support to this research. First, the chapter discussed theories related to the questionnaire survey (technology acceptance models and innovation diffusion theory) and the second theory related website content to a firm's reputation (corporate governance, agency, signalling, legitimacy and innovation theory).

The technology acceptance model (TAM) is often used to gain a better understanding of the adoption and use of information systems. A development of the technology acceptance model (TAM) was proposed. Then the chapter discussed innovation diffusion theory (IDT). IDT aims to help predict the likelihood of adoption of and the rate of adopting an innovation.

Website content theories were then discussed and so was corporate governance theory, which is defined as actually dealing with the "duties and responsibilities of a company's board of directors in managing the company and their relationships with the shareholders of the company and the stakeholder groups". The chapter went on to discuss the agency problem, which arises as a result of the separation of ownership (principals) and control (agent) and moved from this to signalling theory. This was applied to the literature on financial reporting to help understand accounting policy choices and the voluntary disclosure of financial information. After this, legitimacy theory was discussed, followed by innovation theory. The next chapter discusses the research methodology adopted in this study.

Chapter 7: Research Methodology

7.1 Introduction:

The study has two broad tasks: *First*, it investigates the impact of Internet financial reporting on users of financial information in Saudi Arabia. The focus of this aim is to identify what are the greatest benefits of Internet reporting for users, users' concerns, and users' need and users' attitudes. To the best of the researcher's knowledge, there is no empirical literature on the effect of Internet financial reporting on users in general and in Saudi Arabia in particular, except for a few studies such as Rowbottom et al (2005); Jones and Xiao (2004); Beattie and Pratt (2001); Jones et al (2001); and Hassan (1999). However, this study will attempt to generate ideas from previous studies about the effect of hard copy financial reporting on users (Al-Razeen and Karbhari, 2004; Nasser et al, 2003; Almahmoud, 2000; Bell and Tang, 1999; Bartlett and Chandler, 1997; the Jenkins Report, 1994; Streuly, 1994; Ba-owaidan, 1994; Abdelsalam, 1990; Wallace 1988; Chang and Most, 1985; Anderson, 1981; Wilton and Tabb, 1978; Benjamin and Stanga 1977; Lee and Tweedie, 1975; and Baker and Haslem, 1973). To carry out these aims, a survey questionnaire will be used to elicit information about the users' views regarding Internet financial reporting.

Second, the task of this study is to provide useful descriptive and empirical information on whether Saudi Arabia public companies have a website and if so whether they disclosed their financial information on the Internet and how this information can be evaluated. Moreover, the study also examines the relationships between the extent of internet financial disclosure and the main factors influencing such disclosures by Saudi companies.

This chapter focuses upon the research design and the methodology of analysis. The major sections of this chapter are:

- Study objectives.
- Research questions.
- Research Tools.
- Sampling Decisions.
- Choices of Statistical Test.
- Ethical Implications.

7.2 Study Objectives:

In general, the major aims of this study are: *First*, to investigate the perceptions of Saudi users on disclosure financial reporting on the Internet; and *second*, to examine the provision of financial information on the websites of Saudi Arabian public companies. These two broad aims can articulated in the following sub-objectives, which meet the above aims of the study:

7.2.1 Objective of the first aim:

To investigate the perceptions of Saudi users on IFR. In particular, the study set out to explore the following sub-objectives:

- Prior studies revealed that disclosing financial information on a company's website is beneficial to the users for several reasons (see Chapter 4). For example, it provides inexpensive information, eases the decision making process for investments and increases the timeliness and efficiency of obtaining financial information (Allam, 2006; Khadoree, 2005; Smith and Peppard, 2005; Abdelsalam et al, 2004; Xiao et al, 2004; Oyelere et al, 2004; Marston, 2003; Ettredge et al., 2002; Debreceeny et al, 2002; Ettredge et al, 2001; Jones et al, 2000; FASB, 2000; Lymer et al, 1999; Ashbaugh et al, 1999; Deller et al., 1999; and Hassan et al, 1999). Thus this study attempts to identify the main advantages in Saudi Arabia of Internet reporting, from the users' perspective. Moreover, TAM theory reveals that perceived usefulness and perceived ease of use have a great effect on technology acceptance behaviour (Davis; 1989). IDT theory identifies five attributes (see Chapter 6) to explain the different rates of adoption of new technology. The attributes are relative advantage, compatibility, complexity, trialability, visibility and observability (Rogers, 1995). Thus this research will carry out an empirical study to find if there is any differentiation between users regarding IFR and why.
- Nevertheless, the literature review also identifies many problems caused by Internet reporting (see Chapter 4), for instance, forgery of websites and misrepresentation, information overload and data integrity, together with confidentiality (Allam, 2006; Smith and Peppard, 2005; Khadoree,

2005; Oyelere et al, 2004; Xiao et al, 2004; Abdelsalam et al, 2004; Marston, 2003; Debreceeny et al, 2002; Ettredge et al, 2002; Ettredge et al, 2001; FASB, 2000; Jones et al, 2000; Lymer et al, 1999; Ashbaugh et al, 1999; Deller et al, 1999; Hassan et al, 1999; Bury, 1999; Hussey et al, 1998; and Flynn and Gowthorpe, 1997). Consequently, this research will carry out an empirical study based on TAM and IDT theories to find what are the greatest disadvantages in Saudi Arabia of Internet reporting from the users' perspective.

- To examine whether users' information needs have changed or will change as a result of Internet reporting (see Chapter 3). Do different users demand more information once they have Internet reporting? Or do they demand more frequent financial information?
- To examine if there is any influence from Internet reporting on user's attitudes (see Chapter 3) and to find out where different interested users obtain information about public limited companies in Saudi Arabia. To identify what the standing of Internet reporting is among other sources of information. Do users trust Internet reporting as much as hard copy, or at all?
- To discover the perceptions of users about the quality of financial reporting in terms have content and presentation (see Chapters 3 and 5). Do different interested users understand the financial reporting on the Internet or does the Internet enhance the comprehensibility of financial information? How do Saudi users assess the relevance of Internet reporting? Do Saudi public companies provide financial information on a timely basis? What is the effect of Internet on the comparability of financial information? What do different Saudi users think about the reliability of Internet reporting?

7.2.1.1 Justifications of the first aim:

The first aim is considered important for the following reasons first, it is the only study undertaken so far to investigate the perceptions of Saudi users on the disclosure financial reporting on the Internet in Saudi Arabia. Second, the fulfilment of this objective will, it is hoped, enhance our understanding of the Internet reporting environment in Saudi Arabia. Third, the results of this study are expected to show the degree of matching between the demand for and the supply of Internet reporting in Saudi Arabia. Finally, the regulators and preparers of Internet reporting practices will, it is hoped, benefit from the fulfilment of these objectives.

7.2.2 Objectives of the Second aim:

It has been increasingly common in recent years for companies, in particular, large firms, to communicate information to their stakeholders by using the Internet (see Chapter 4). In this context, the objectives of the second aim are as follows:

- The previous studies show that the provision of financial information by firms on the Internet is growing rapidly. For example 93 percent of the top 100 Fortune 500 companies include some form of financial information on their website (FASB, 2000). Thus this study attempts to answer these questions:
 - Do Saudi public listed companies have a website?
 - If so, do they include some sort of financial information?
 - If so what information is disclosed on the website?
 - If the first answer is yes, the study will go on to examine the relationships between the extent of financial disclosure and the main factors influencing such disclosures by Saudi companies.

The review of the literature reveals that, while many companies have an established website (see Chapters 4 and 5), there are variations in their content (Allam, 2006; Smith and Peppard, 2005; Khadoree, 2005; Oyelere et al, 2004;

Xiao et al, 2004; Abdelsalam et al, 2004; Marston, 2003; Debreceeny et al, 2002; Ettredge et al, 2002; Ettredge et al, 2001; FASB, 2000; Jones et al, 2000; Lymer et al, 1999; Ashbaugh et al, 1999; Deller et al, 1999; Hassan et al, 1999; Bury, 1999; Hussey et al, 1998; and Flynn and Gowthorpe, 1997). Hence this study will evaluate companies' websites on the basis of a set of criteria. The criteria are divided into two aspects of Internet financial reporting (IFR): content (general content and credibility) and usability.

Moreover, the study examines the relationship between the extent of Internet financial disclosure by Saudi Arabian public companies and the main factors influencing disclosures, for instance, company size and industrial types (see Chapter 5).

7.2.2.1 Justifications of the second aim:

This study is considered useful for the following reasons. *First*, the increasing forces of intensifying global competition, continuing customer demand and the significant revolution in digital communication technologies have together put pressure upon many organizations to publish financial information online. This study is believed to be the only study so far to examine Internet reporting practices by all Saudi public companies. *Second*, it is also considered as the only study so far to examine the relationship between the extent of Internet financial disclosure and the main factors influencing disclosures in the Saudi environment. *Third*, this study is considered useful because it is one of the few academic studies which have tried to use theory to examine the nature of voluntary financial information provision on the Internet. *Finally*, useful descriptions of Internet reporting among Saudi Arabian public companies are expected to be provided in the results of the study.

7.3 Research Questions:

7.3.1 First aim questions:

How does the target sample evaluate Internet infrastructure in the Kingdom of Saudi Arabia?

Where do they obtain information about public companies in Saudi Arabia?

What is the standing of Internet financial reporting among other sources of information about public companies in Saudi Arabia?

What are the main Internet financial reporting sources for users of financial information in Saudi Arabia?

What is the most attractive part of a company's website to users of Internet reporting in Saudi Arabia?

What are the main benefits of Internet financial reporting for users in Saudi Arabia?

What are the main concerns and problems related to Internet financial reporting which affect the use by interested parties?

How do different interested parties assess the quality of Internet financial reporting provided by public companies in Saudi Arabia?

Are the Internet and Internet financial reporting changing the users' information needs?

Do the Internet and Internet financial reporting have a similar effect on each user?

7.3.2 Second aim questions:

Do all Saudi public companies have a website?

Do Saudi public companies disclose financial information on their website?

Are there any variations in the Internet financial reporting provided by Saudi public companies?

What are the main factors which may explain such variations?

7.4 Research Tools:

Once the research objectives and questions are defined and clearly specified, the research effort logically turns to the methods of data collection. Typically, information sources can be divided into primary and secondary types. **Primary data** come from the original source and are collected specifically to answer the research questions. In contrast, **secondary data** are often statistical and are not gathered for the specific study in hand, but for some other purposes. As mentioned above, the present study will be undertaken in two stages. The first stage (primary data) involves a questionnaire survey to obtain a broad overview of the impact of Internet financial reporting on users. The second stage (secondary data) involves an index of disclosure to examine the current level of Internet financial reporting by Saudi public companies and identify variations, if any. The following sections provide more details.

7.4.1. Step one: the questionnaire survey:

It was stated above that the research would be undertaken in two stages, the first of which involves a questionnaire survey. A questionnaire was chosen for the following reasons: **first** it is commonly used in earlier studies about the relationship between hard copy financial reporting and users, which means that it is relevant to the present research topic (Al-Razeen and Karbhari, 2004; Almahmoud, 2000; Ba-Owaidan, 1994; Abdelsalam, 1990; Ahmad, 1988; Anderson, 1981; Chang and Most, 1977 and 1985; Chenhall and Juchau, 1977; Lee and Tweedie, 1976 and 1975; and Baker and Haslem, 1973). **Second**, it is considered a practical and efficient way to amass data. **Finally**, it is also considered efficient due to the other advantages of questionnaire. However, the research also recognises their disadvantages. The following sections discuss questionnaire surveys in more depth.

7.4.1.1. Questionnaire Definition:

"A questionnaire survey is a highly structured data collection technique whereby each respondent is asked the same set of reformulated written questions. The questionnaire can be carried out either by mailing it to respondents or by personal administration, whereby the questionnaire is presented to the respondents with an explanation of the purpose of the inquiry and then the respondent is left alone to complete it, which will be picked up later" (Oppenheim, 1992 p.28).

7.4.1.2 Advantages of Questionnaire surveys:

This method of data collection, like any other method has many advantages (Nachmias and Nachmias, 2004; Czaja and Blair, 1996; Morse and Kalton, 1993; Oppenheim, 1992; Sekaran, 1992; Mann, 1985; Bailey, 1982; and Hoinville et al, 1978).

- **Coverage of a wide geographical area:** when the respondents are widely spread geographically then the questionnaire may be the obvious method for making contact (Moser and Kalton, 1993 and Oppenheim, 1992).
- **Low cost:** the most obvious advantage of the questionnaire method is the low cost of data collection compared with interviews with the same sample size. It has particular advantages in terms of training skill, travelling and data processing analysis (Nachmias and Nachmias, 2004).
- **Time flexibility:** mailed questionnaires can be sent to all respondents simultaneously and most of the replies will be received within a week or so, while interviews are generally performed sequentially and may take months to complete. Moreover, questionnaires are preferable when questions demand a considered (rather than an immediate) answer or if the answer requires personal documents and other people to be consulted (Nachmias and Nachmias, 2004; Moser and Kalton, 1993; Sekaran, 1992; and Bailey, 1982).
- **Reduction in bias error:** Regarding bias error, the questionnaire has considerable advantage over the interview. The interview is fraught with the possibility of bias due to the nature of the interaction between the interviewer and the respondent. An interviewer can bias answers in many ways, such as prompting through voice inflection, assuming that the respondent will answer in a certain way, or telling the respondent his or her personal opinion (Nachmias and Nachmias, 2004; Oppenheim, 1992; and Sekaran, 1992).

- **Standardised wording:** comparing the respondents' answers is facilitated by the fact that each respondent is exposed to exactly the same wording (Nachmias and Nachmias, 2004; Oppenheim, 1996; and Mann, 1985).
- **Securing the information:** the mailed questionnaire allows respondents to consult their records, confer with colleagues, or conduct research before answering, while the interview generally does not (Nachmias and Nachmias, 2004; Oppenheim, 1996; and Czaja and Blair, 1996).
- **Accessibility:** respondents who are widely separated geographically can all be reached for the price of a postage stamp, whereas interviewers may have expensive travel costs (Nachmias and Nachmias, 2004; Oppenheim, 1996; Czaja and Blair, 1996; and Hoinville et al , 1978).
- **Anonymity:** questionnaires may elicit a higher response rate than interviews, in particular when the survey deals with sensitive issues (Nachmias and Nachmias, 2004; Oppenheim, 1996; Bailey, 1982; and Hoinville et al , 1978)

7.4.1.3 Disadvantages of Questionnaire surveys:

The questionnaire, however, has several disadvantages (Nachmias and Nachmias, 2004; Czaja and Blair, 1996; Morse and Kalton, 1993; Oppenheim, 1992; Sekaran, 1992; Mann, 1985; Bailey, 1982; and Hoinville et al , 1978):

- **Low response rate:** one of the main criticisms of questionnaire surveys is that they have a low response rate in general, mail questionnaires in particular. The mail questionnaire studies sometimes receive a response rate as low as 10 percent and 50 percent is considered adequate (Nachmias and Nachmias, 2004; Hoinville et al , 1978 and Babbie, 1973).

- **No opportunity for probing answers:** respondents to mail questionnaires have difficulty in coping with boring questions and sometimes do not respond and there is no opportunity for the researcher to offer help or explanation because no personal contact is involved (Nachmias and Nachmias, 2004; and Sekaran, 1992).
- **No control over the respondent's environment:** researchers have no control over the respondent's environment. Hence they cannot be sure that the appropriate person completes the questionnaire (Nachmias and Nachmias, 2004; Oppenheim, 1992; Sekaran, 1992; and Bailey, 1982).
- **Human errors:** with the questionnaire method the problem can arise that respondents put their replies in the wrong boxes (Nachmias and Nachmias, 2004; and Mann, 1985).
- **Verbal behaviour only:** there is no opportunity to observe nonverbal behaviour or to make personal assessments concerning the respondent's ethnicity, social class and other pertinent characteristics (Nachmias and Nachmias, 2004; Moser and Kalton, 1993; and Oppenheim, 1992).
- **No control over question order:** in a questionnaire survey respondents may leave out some questions or not answer some of them in the order in which they are presented (Nachmias and Nachmias, 2004; Oppenheim, 1996; and Czaja and Blair, 1996).
- **Difficulty of separating misaddressed questionnaires from those which are not responded to:** some questionnaires which fail to reach respondents are returned to the researcher; many fall into the hands of new tenants who throw them away and this affects the response rate (Nachmias and Nachmias, 2004; Oppenheim, 1992; and Bailey, 1982).
- **Impossibility of using complex questions:** the questions on a mailed questionnaire must generally be simple to understand, while a complex format with many contingency questions is also probably too confusing

for the average respondent (Nachmias and Nachmias, 2004; Oppenheim, 1996; Czaja and Blair, 1996; and Bailey, 1982)

7.4.1.4 Questionnaire Design:

Since the study will adopt questionnaire method based on the conditions in which the study is undertaken, it is essential to identify what the characteristics of an effective questionnaire would be. The foundations of all questionnaires are the questions. Thus the questionnaire must translate the research objectives into specific questions; answers to such questions will provide the data to satisfy the purposes of the survey and the respondent must feel motivated to answer the questions. The necessary information must also be collected with maximal reliability and validity (Dillman, 2000). However, in practice, producing a good questionnaire, which is clear, unambiguous and encourages the respondents to participate, is often difficult (Dillman, 2000 and Rose, 1992). The major considerations involved in formulating the questions are their content, structure, format and sequence. Some of these are examined in the following sections.

7.4.1.5 Content and structure of questions:

Survey questions may be concerned with facts, opinions, attitudes, respondents' motivation or their level of familiarity with a certain subject. Most questions, however, can be classified into two general categories. **Factual questions** are designed to elicit objective information regarding background, the respondents' environment and their habits; and **Opinion or attitude questions**, which refer to the sum total of a person's inclinations, prejudices, ideas, fears, beliefs, feelings and convictions about any specific topic (Nachmias and Nachmias, 1982).

With regard to the structure of questions, there are three types: **(1) open-ended questions, (2) closed-ended questions and (3) contingency questions.** Open-ended questions are not followed by any kind of specified choice and the respondents' answers are reported in full. The main virtues of open-ended question are that they do not force the respondents to adapt to preconceived

answers, but are flexible and respondents can express their own thinking freely. However, they are difficult to answer and still more difficult to analyse. The second type, closed questions, offers respondents a set of answers from which they are asked to choose the one that most closely represents their view. The main advantages of closed-ended questions are that they are easy to ask and quick to answer; and their analysis is straightforward. The major disadvantage of closed-ended questions is that there is no freedom for respondents to express themselves and respondent may select an option which might not otherwise have occurred to them. The last type, contingency questions, is a special subset of closed-ended questions and applies only to a subgroup of respondents. The relevance of the question to this subgroup is determined by the answer of all respondents to a preceding filter question. The major problem of contingency questions is that they may confuse respondents (Nachmias and Nachmias, 1996).

7.4.1.6 Question wording:

Dillman (2000: 79) stated that:

"Words are the building blocks for all question structure, but deciding which words to use and in what order is far from simple. The wrong choice of words can create any number of problems, from excessive vagueness to too much precision, from being misunderstood to not being understood at all and from being too objectionable to being uninteresting and irrelevant"

While it is impossible to say which wording of questions is always the best, (Nachmias and Nachmias, 2004; Dillman, 2000; Gillham, 2000; Emory, 1980; and Bailey, 1978) several criteria for a good question is summarised below:

- A question must translate the research objective and motivate the respondent to provide the information being sought.
- Simple words should be used, instead of specialised words, so as to be understood by more respondents. Substitute the first kind of words for the second kind.
- As few words as possible should be chosen to phrase the questions: attempt to keep questions short because long questions may lead respondents to miss important words and give unimportant ones undue emphasis.

- Vague quantifiers should be avoided when more precise estimates can be obtained and state both sides of attitude scales in the question stems.
- Double-barrelled questions should be avoided; these are questions which contain two components, about which a respondent may feel differently, but require one answer.

7.4.1.7 The question design and designing the questionnaire used in this study:

The questionnaire was compiled, *first*, by reviewing the mainstream literature on the impact of hard copy financial reporting in terms of the quality of financial information, users' information needs and users' attitudes (Al-Razeen and Karbhari, 2004; Almahmoud, 2000; Ba-Owaidan, 1994; Streuly, 1994; Abdelsalam, 1990; Ahmad, 1988; Chang and Most, 1985; Anderson, 1981; Lee and Tweedie, 1981; Wilton and Tabb, 1978; and Chang and Most, 1977) and adapting this knowledge to the research topic. *Second*, Internet financial reporting was reviewed (Abdelsalam et al, 2007; Abdelsalam et al, 2006; Allam, 2006; Smith and Peppard; 2005; Khadoree, 2005, Oyelere et al, 2004; Xiao et al, 2004; Abdelsalam et al, 2004; Marston, 2003; Debreceeny et al, 2002; Ettredge et al, 2002; Ettredge et al, 2001; FASB, 2000; Jones et al, 2000; Lymer et al, 1999; Ashbaugh et al, 1999; Deller et al, 1999; Hassan et al, 1999; Bury, 1999; Hussey et al, 1998; and Flynn and Gowthorpe, 1997) to gain an understanding of the environment of Internet financial reporting. *Third*, studies about hard copy financial reporting in Saudi Arabia were examined (Al-Razeen and Karbhari, 2004; Almahmoud, 2000; Ba-Owaidan, 1994; Abdelsalam, 1990; and Ahmad, 1988) which ensured that no important issues were omitted which might prove significant to the study. *Finally*, the questionnaire used in this study took into account the above advantages and disadvantages of questionnaires in determining how to write questions.

Consequently, six themes are identified which formed the basic structure of the questionnaire. These can be briefly categorised as: (1) the perception of users about the Internet infrastructure in Saudi Arabia; (2) users' attitudes to sources of financial information; (3) the main advantages of Internet financial reporting

from the users' perspective; (4) the main disadvantages of Internet financial reporting from users' perspective; (5) how users evaluate Internet financial reporting provided by Saudi public companies; and (6) the impact of Internet financial reporting on users' information needs. A copy of the questions together with the covering letter is provided in Appendices 1, 2, 3, and 4.

It can be seen from these Appendices that there are three versions of the questionnaire for each group of financial information users (private, institutional and financial investors); the group definition and rationale behind the choice of these groups are given in section 7-4-1-9-2 below. The questionnaires are in seven sections and consist of 11 pages (for the Arabic version) including the cover page which is used to state briefly the objective of the questionnaire and also to assure respondents of the confidentiality of all information provided and tell them that the information will be used for the purpose of the study only. The name and address of the researcher is included, in a further attempt to increase authenticity. The questions are designed so as to help respondents complete them step by step through thought and action, with the minimum of time and effort. The following sections deal with the questions in detail and the questionnaire's rationale.

7.4.1.8 Questionnaire rationale:

Part 1 (Question 1-7): General Information: the first part dealt with the respondents' background by asking them five questions related to their level of education, type of education, age, their preferred sector for investment and preferred companies (domestic or non domestic). These questions are selected on the basis of the literature review and with regard to the Saudi Arabian environment and some previous studies (Al-Razeen and Karbhari, 2004; Nasser et al, 2003; Jones et al, 2002; Beattie and Pratt, 2001; Almahmod, 2001). The main objectives of this section are, first, to obtain a profile of the respondents who participated in this study and, second, to use the background information to find if it has had any impact on the respondents' answers (see also Chapter 6, in particular the sections on the technology acceptance model and Innovation diffusion theory). Phillips et al (1994), for example, investigated technology adoption in China by using the TAM model and reported that cultural

affinity has a significant and positive influence on TAM through its perceived ease of adoption.

Part 2: Internet Background (questions 8-12): The basic aim of this section is to provide background information about the respondents' use of the Internet in Saudi Arabia (see Chapters 2 and 6). Rogers (1995), for example, claimed that five attributes explain 49 to 89 percent of the variance in the rate of adoption of innovation. These attributes are relative advantage, compatibility, complexity, trialability, visibility and observability (see Chapter 6 for more details). In this regard, this section contains five questions related to respondents' place of access, their skill on the Internet, frequency of use in an average week, kind of information they are looking for and attitudes to Internet infrastructure in Saudi Arabia. These questions are selected on the basis of the literature review and with regard to the Saudi Arabian environment (Jones and Xiao, 2004; Open Net Initiative, 2004; IDN Software Developer Consortium, 2004; Global Reach, 2004; Al-Furaih, 2003; Internet Society, 2003; Jones et al, 2002; Al-Zoman, 2002; Beattie and Pratt, 2001; Bell and Tang, 1999). The main purposes of this section are as follows; first, to identify Internet use and experience by each group of respondents. The second is to examine statistically whether there is any variation between respondents regarding Internet infrastructure.

Part 3 Sources of Financial Information (Questions 13-15): This section is specifically designed to examine the influence of Internet financial reporting on users' attitude (see Chapters 1 and 3). The first question is designed to find out where the respondents get their information about public companies in Saudi Arabia; they are also asked to indicate the importance of each source. These sources are selected on the basis of the literature review and with regard to the Saudi Arabia environment (Jones and Xiao, 2004; Al-Razeen and Karbhari, 2004; Nasser et al , 2003; Jones et al , 2002; Beattie and Pratt, 2001; Almahmod, 2001; Beattie, 2000; Barker, 1999; Taylor, 1998; Al-mubark, 1997; Bartlett and Chandler, 1997, Abu-nassar and Rutherford, 1996; Bence, Hapeshi and Hussey, 1995; Ba-owaidan, 1994; Abdelsalam, 1990; and Lee and Tweedie, 1975). This question is particularly important, as the result will show what the standing of Internet financial reporting is in relation to other sources.

The second question is about several possible sources of Internet financial reporting. This will indicate the extent to which the Internet is the preferred source and also to find out whether users are familiar with other sources or not. The last question in this part asks which are the most attractive parts of a company's website. The responses to this question, in particular, will determine which information on the web is most usable.

Parts 4 and Part 5: Benefits to Users and Users' Concerns (Questions 16-17): These questions aim to reveal the main advantages and disadvantages of Internet financial reporting for users in Saudi Arabia and to find out if respondents have the same views or not. Several advantages and disadvantages have been cited in the review of the literature on Internet financial reporting (Rowbottom et al, 2005; Khadaroo, 2005; Debreceeny and Rahman, 2005; Jones and Xiao, 2004; Trabelsi et al, 2004; Fisher et al, 2004; Gowthorpe, 2004; Benston, Bromwich et al, 2003; Geerlings et al, 2003; Adams and Frost, 2003; Xiao et al, 2002a; Xiao et al, 2002b; Carey and Parker, 2002; Debreceeny et al, 2002; Ettredge et al, 2002; ACCA, 2002; Carey and Parker, 2002; Ettredge et al, 2001; Hodge, 2001; Xiao, 2000; FASB, 2000; Hodge, 2000; Fisher et al, 2000; Gerald, 1999; Trites et al, 1999; Hassan, 1999; Louwers et al, 1998; Lymer, 1997; Lymer and Tallberg, 1997; Deller et al, 1997; and Louwers et al, 1996). Moreover, the Technology acceptance model (see Chapter Six) reveals that the perceived usefulness and perceived ease of use have a great affect on technology acceptance behaviour. Furthermore, Innovation diffusion theory identifies five attributes to explain 49 to 89 percent of the variance in rates of adoption. Three of them could be used to identify the impact of IFR's advantages and disadvantages on Saudi users. These attributes are: superiority (the degree to which the innovation is superior to the practice which it supersedes), compatibility (the degree to which the innovation is consistent with existing facilities and practice) and complexity (the degree to which the innovation is easy to learn and use).

Part 6 Quality of the Current IFR in Saudi Arabia (Question 18): previous studies revealed that adopting Internet financial reporting in most cases enhanced the quality of financial reporting. These items are selected on the

basis of the literature review and with regard to the Saudi Arabian environment (see Chapters 3-5). Examples of these studies are: Rowbottom et al, 2005; Jones and Xiao, 2004; Al-Razeen and Karbhari, 2004; Beattie and Pratt, 2001. Thus this question is aimed at revealing how users evaluate the quality of Internet financial reporting. The results of this part are expected to be important to preparers of financial reporting and accounting authorities in Saudi Arabia.

Part 7 Users' needs (Question 19): Users of Internet financial reporting are not homogeneous; different users have different objectives and information needs. The present study attempts to identify the impact of Internet financial reporting on users' information needs (see Chapters 1, 3 and 5). These needs are identified on the basis of the literature review and with regard to the Saudi Arabian environment (Rowbottom et al, 2005; Jones and Xiao, 2004; Al-Razeen and Karbhari, 2004; Nasser et al, 2003; Elliott, 2002; SOCPA, 2002; SOCPA, 2001; Beattie and Pratt, 2001; Jones et al, 2001; AICPA, 2000; Kothari, 2000; Hassan et al, 1999; Bell and Tang, 1999; Bartlett and Chandler, 1997; Elliott, 1996; Wallman, 1995; Eccles and Mavrinac, 1995; Anderson and Epstein, 1995; Ba-owaidan, 1994; Ibrahim and Kim, 1994; Epstein and Freedman, 1994; the Jenkins Report, 1994; AIMR, 1993; Elliott, 1992; Abdelsalam, 1990; Eng and Hasseldine, 1982; McNally et al, 1982; Anderson, 1981; Firth, 1978; Benjamin and Stanga, 1977; and Baker and Haslem, 1973). This objective is accomplished by asking the target group 23 questions about how important some features of corporate websites are to them (content, credibility and usability). The result highlights what features of Internet financial reporting were important to users.

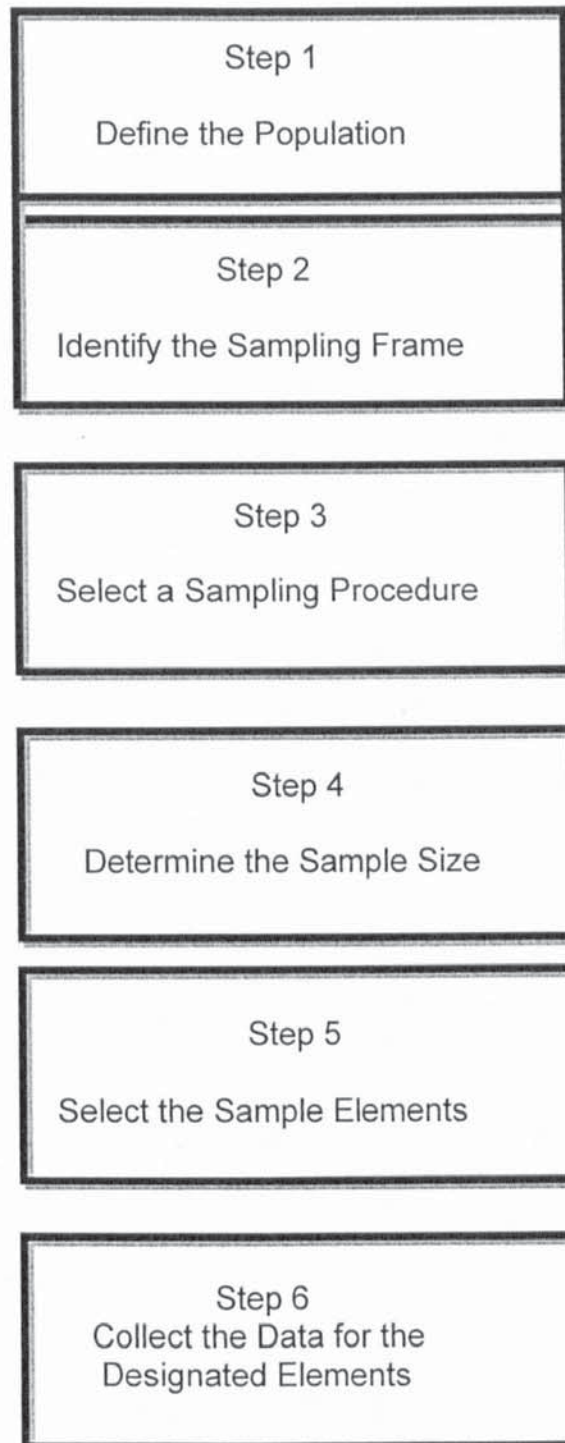
7.4.1.9 Primary Data Sampling Decisions:

It seems unfortunately to be true that a good sample is an accurately and efficiently assembled model of the population, but, no matter how proficient the research, sampling basis or error is inevitable. Sampling methods are usually divided into two types. The first is called probability sampling, which provides a statistical basis for saying that a sample is representative of the target population. The second is called non probability sampling, in which the sample

is based on a judgement about the characteristics of the target population and the needs of the survey.

Churchill (1991) has developed the following six-step procedure for drawing a sample:

Figure 7.1: Procedure for Drawing a Sample



7.4.1.9.1 Population:

Population definition is directly associated with the research purpose (Churchill, 1991). With respect to the present study, the population was defined as the users of Internet financial reporting in the Kingdom of Saudi Arabia. In this regard, five conditions were deemed necessary for identifying the population clearly.

First, those experienced in Internet use are likely to be more important. The decision was made to only include in the sample those investors who use the Internet. *Second*, the focus of the study is on external users of Internet financial reporting. Internal users are excluded, as they are involved directly in the operations of a business and they have sufficient information about their investment. *Third*, external users have to be actively involved in share market investment activities; it was therefore decided to include only those users who read financial reports for the purpose of profit. *Fourth*, although location differences may have some impact on the nature of the findings, it was the researcher's intention to select a combination of different regions (western, central and eastern regions of Saudi Arabia). These regions contain the largest number of investors in Saudi Arabia and represent the most active trading area in the country. *Finally*, people experienced in investment are likely to be more concerned than others about the impact of Internet financial reporting, the decision was made to include in the sample only those investors who dominate the investment market in Saudi Arabia (institutional investors, financial analysts and individual investors). The following sections will discuss each group in more detail.

7.4.1.9.2 Subject Groups (questionnaire survey):

Since this section is concerned with investigating the effect of Internet financial reporting on Saudi Arabian users, three groups were deemed to represent the subject group of the study, institutional investors, financial analysts and private investors. The rationale behind the choice of these groups is given below.

The institutional investors:

This group consists of all the relevant institutional firms, such as:

Pension Fund Authority,

General Organisation for Social Insurance,

Public Investment Fund,

Rana Investment Company,

Alasisya (for financial investment) and

Saudi Commercial Banks with respect to their equity funds.

The main reasons for choosing this group were as follows. It consists of investors who are involved in share marketing activities. Not only that, but also this group represents the most sophisticated investors. The experience and the knowledge of this group suggest they should be included in this study to obtain well-informed opinion. Moreover, they are most likely to dominate the stock market in Saudi Arabia so it is logical to investigate their opinion. The list of these investment firms was obtained from the Ministry of Commerce and Industry and the Chambers of Commerce and Industry in the three main regions chosen (the western, central and eastern regions of Saudi Arabia).

The financial analysts:

The financial analysts group consists of all financial analysts who are involved in analysing financial data and/or investments analysts. These financial analysts are:

- All the financial analysts employed by the Saudi Commercial Bank,
- The Consulting Centre for Finance and Investment,
- Zughaibi & Kabbani Financial Consulting and
- Bakheet Financial Advisors.

This group has been chosen to participate in this study for the following reasons: first, they are involved (not directly) in market investment activities through analysing financial data and giving professional opinions and recommendations to investors in the stock market. Second, they are more likely to have a business education background, which informs their comments and suggestions. Third, they are very aware of users' needs and the shortcomings

of hard copy annual reporting and IFR. For the purposes of this study, the researcher will approach these organisations to get as many financial analysts as possible to participate in this survey. The list of financial analysts group was obtained from the Ministry of Commerce and Industry and the Chambers of Commerce and Industry in the three main regions chosen (the western, central and eastern regions of Saudi Arabia).

The individual investors:

Investors in this group consist of individual investors who buy and sell shares in the Saudi Stock Market through commercial banks. This group has been chosen to participate in this study for the following reasons: it consists of individuals who are involved in the share market investment activities. The group also consists of an unlimited number of investors who have different educational backgrounds which might affect their views about the effect of the Internet on users. There are several ways to contact individual Saudi investors, such as through shareholders' registers, by post, or by personal contact. The first approach is unsatisfactory, because the shareholders' register is not up-to-date and is unreliable, while postal delivery is uncertain, in view of the non-availability of full and correct addresses for investors. Therefore, the only practical approach to carrying out this survey is by personal contact (delivering questionnaires by hand) with individual investors (it is easy to find most of them in the central share trading units within every commercial bank).

7.4.1.9.3 Sample Frame and Size (questionnaire survey):

Regarding the above discussion and considering the Saudi Arabian environment, an attempt was made to specify a sampling frame which is appropriate for the present study. To this end, account was taken of a number of key elements. More specifically, each user had to be included once and the information obtained had to be accurate, representative of the whole population and easy to use. Different databases and prospective catalogues were inspected to identify and select a suitable sampling frame for the study, such as the databases of the Ministry of Commerce and Industry, the Chamber of Commerce and Industry and professional bodies. The Chamber of Commerce

and Industry database was found to be the most appropriate sampling frame for institutional investors and financial analysts, for firms could be drawn from it which satisfied all the research design requirements. With regard to individual investors, the only way to identify the sampling frame is through the Shareholders' Register. In fact, as noted above, the unreliability of the register makes it unusable. Therefore, this study will adopt convenient sampling techniques and snowball techniques. The questionnaire survey was usually delivered to individual investors in several ways, such as:

- Personal contact through share trading units in commercial banks.
- Publishing a copy of the questionnaire survey on a financial website such as those of Zughaibi & Kabbani Financial Consulting and Bakheet Financial Advisors.
- Contacting a number of active investors who were identified through other investors, bank officers or friends.

7.4.1.10 Pilot Study Testing:

According to Oppenheim (1992: 64), "studies which have been inadequately piloted or not piloted at all, will find that a great deal of effort has been wasted on unintelligible questions producing unquantifiable responses and uninterruptible results". Hussey and Hussey (1997) suggested that at the very least, a questionnaire should be tested among friends or colleagues, but as far as possible on the people who are similar to the people in the sample. Similarly, Babbie (2001: 45) stated that "it is not usually essential that the pre-test subjects comprise a representative sample although you should use people to whom the questionnaire is at least relevant". The steps taken to test the questionnaire are described below.

As explained earlier, the questionnaire was designed after taking into consideration the situation in Saudi Arabia. After several discussions with supervisors, the revised questionnaires were then sent to eight academics in Saudi and UK universities with an interest in financial reporting, seven private investors, five financial analysts, five Institutional investors and ten colleagues

who are studying for a PhD in accountancy in Saudi Arabia and in the UK. The aim of this stage was to assess whether the research instrument was valid for the task or not. As Hussey and Hussey (1997) mention, validity is the extent to which the research findings accurately represent what is really happening. An effect or test is valid if it demonstrates or measures what the research thinks or claims it does. In other words, in validity assessment, the basic question to answer is: 'Are we in fact measuring what we think we are measuring?' (Diamantopoulos & Schlegelmilch; 2000). In addition, the other objective of piloting is to assess the validity and reliability of the questionnaire. According to Diamantopoulos and Schlegelmilch (2000), a measure which is valid is also reliable, but the reverse is not necessarily true.

All the piloting samples had a covering letter explaining the nature and objectives of the research. The reviewers were invited to note their observations and then make recommendations to the questionnaire and comment on ways to develop it, as well as making suggestions which could facilitate the analysis of data.

In all, thirty-five questionnaires were sent out, of which twenty-five were returned (a pilot study was made in September 2005). Table 7-1 below indicates the response rate of the pilot study conducted before the main survey study.

Table 7.1: Pilot Study Response Rate

Piloting Parties	Sent	Response	Response Rate
Academics	8	6	75%
Private investors	7	5	71%
Financial analysts	5	4	80%
Institutional investors	5	3	60%
PhD Students	10	7	70%
Total	35	25	71%

As shown in the table above, six responses were received out of the eight questionnaires from academics. The quality of the responses comes partly from the diversity of the background of the respondents; for instance one is the editor

of an accounting journal, another is the director of the Saudi Accounting Association (SAA) and finally four are the heads of the departments of accounting at the King Saud University, Umm Al-Qura university, The King Fahd University of Petroleum & Minerals or else a member of the accounting department.

Also, five questionnaires were returned from private investors, four from financial analysts and three questionnaires from institutional investors. Finally, seven questionnaires were returned from the researcher's colleagues. In addition to the above, two specialists in statistics in Saudi Arabia (one the head of the mathematics department in Umm al-Qura University and the other a member of the Centre for Statistical Research at Umm al-Qura University) to check the types of statistical test which might be used for interpretation and analysis; their suggestions and comments are hereby gratefully acknowledged.

It should be noted that the researcher received many useful suggestions from all the parties who took part in the pilot study. Some of these were corrections to rephrase the words in the statements while others were suggestions about dividing the statements in the questionnaire into appropriate groups to facilitate interpretation and analysis.

7.4.1.11 Reliability and Validity Test:

This test is made to determine whether the characteristics of questions accurately address what is the study's intention (reliability) and to assess their validity assessment.

7.4.1.11.1 Reliability Test:

Reliability is a statistical measure of how reproducible the survey instrument's data are (Litwin, 1995). It is concerned with estimates of the degree to which a measurement is free of random or unstable error (Cooper and Emory, 1995). Kirk and Miller (1986) concluded that it is the extent to which a measurement procedure yields the same answer however and whenever it is carried out. Carmines and Zeller (1979) defined reliability as the extent to which an

experiment, test, or any measuring procedure yields the same results on repeated trials.

- Reliability is commonly assessed in three forms: test-retest, alternate-form and internal consistency. Test-retest reliability is commonly used as an indicator of a survey instrument's reliability. It is measured by having the same set of respondents complete a survey at two different points in time to see how stable the responses are. Correlation coefficients are collectively referred to as the survey instrument's test-retest reliability. Test-retest reliability can be calculated not only for single items but also for groups of items. When measuring test-retest reliability, care must be taken not to select items or scales which measure variables likely to change over short periods of time (Litwin, 1995).
- Alternate-form reliability provides one way to escape the problem of the practice effect. It involves using differently-worded items to measure the same attribute. These items are administered to the same population at different times and the correlation coefficients are again calculated. If these are high, the survey instrument or item is said to have good alternate-form reliability. Alternatively, if the sample is large enough, it can be divided in half and each alternate form administered to half the group. The results from the two halves are then compared with each other. This technique is called the spilt halves method. This method is generally accepted as being as good as administering the different forms to the same sample at different time points (Cooper and Emory, 1995).
- Internal consistency reliability is the most commonly used form in assessing survey instruments and scales. It is applied not to single items but to groups of items which are thought to measure different aspects of the same concept. Internal consistency is an indicator of how well the different items measure the same issue. It is measured by calculating a statistic known as Cronbach's coefficient alpha. Coefficient alpha measures internal consistency reliability among a group of items

combined to form a single scale. It reflects the homogeneity of the scale and how well different items complement each other in their measurement of different aspects of the same variable of quality (Litwin, 1995; Cooper and Emory, 1995; Kervin; 1992; and Churchill, 1991).

As stated above, reliability is usually expressed on the basis of Cronbach's coefficient alpha. A level of 0.60 or more is generally accepted as representing good reliability (Sekaran, 1992). The reliability test used in this study is on the basis of internal consistency reliability.

Table 7-2 reports the results of the Cronbach's Alpha testing for each group and also for the sample as a whole. It shows a relatively acceptable amount of internal consistency of the responses of each of the user groups and for the samples as a whole.

Table 7.2: The Results of the Cronbach's Alpha Testing for the Questionnaire			
Institutional investors	Financial analysts	Individual investors	Whole sample
.69	.62	.66	.68

7.4.1.11.2 Validity Test:

Besides determining the reliability survey of an item or a scale, validity is an important measure of a survey instrument's accuracy. It is critical and refers to the extent to which a test measures what we actually wish it to measure (Thorndike and Hagen, 1969). Carmines and Zeller (1979) stated that validity concerns the crucial relationship between concept and indicator. Cooper and Emory (1995) stressed that validity is the extent to which differences found with a measuring tool reflect true differences among the respondents being tested. Typically, validity can be divided into three types: content, criterion and construct (Churchill and Iacobucci, 2002).

- **Content validity** is usually assessed by individuals with expertise in some aspect of the subject under study. The assessment of content validity typically involves an organised review of the survey's contents to

ensure that it includes everything it should and does not include anything it should not. It provides a good foundation on which to build a methodologically rigorous assessment of a survey instrument's validity (Sekaran, 1992; Diamantopoulos and Schlegelmich, 2000).

The content validity of the instrument of this study was established through the pilot study, as discussed above, during this period; the questionnaire was distributed to eleven academics (three PhD supervisors and eight academics) who have an Internet financial reporting basis, seven private investors, five financial analysts, five institutional investors and ten PhD students in accountancy. Moreover, discussion and comment from supervisors provided a good foundation for designing the survey instrument.

The results showed that the questionnaire covered important aspects identified within the literature review. The result also showed that minor modifications were needed before the questionnaire could be finally used in the main study.

- **Criterion validity** is a measure of how well the items or scales predict expected future observations (Litwin, 1995). Kervin (1992) demonstrated that criterion validity primarily checks that the relationship with a criterion measure accurately reflects the concept. It may be measured differently, depending on how much published literature is available in the area of study (Churchill and Iacobucci, 2002).
- **Construct validity** is assessed by whether the measure confirms or denies the hypotheses predicted from the theory based on the constructs (Churchill, 1991). It primarily checks relationships involving the theoretical ideas underlying the measure (Kervin, 1992). Construct validity is often thought to comprise two other forms of validity: convergent and divergent (discriminant). The former is defined as the confirmation of a relationship by independent measurement procedures,

while the latter requires that a measure does not correlate too closely with measures from which it is supposed to differ (Kervin, 1992; Churchill, 1991).

In this study, a content validity test of the questionnaires was conducted through a theoretical review and pilot test as mentioned earlier. The items of the questionnaire were seen as the relevant criteria by academics, private investors, financial analysts, institutional investors and PhD students; therefore, the questionnaire could be accepted as possessing content validity. In addition, the questionnaire used in this study contained clear and direct questions; this was reflected from the pilot study results, which showed that the construct validity is acceptable. Moreover, using a Likert scale with its 5 categories also contributed to improving the construct validity.

7.4.1.12 The Main research: Administration of the Primary Data (questionnaires):

The effective administration of a survey is vital to the achievement of a good response rate and generation of high quality data. This is widely recognised by researchers, who focus attention on developing techniques which can be used to maximise the quality and quantity of responses. For the purpose of this study a self-administered questionnaire was chosen for carrying out this survey. The reason for this choice was to cope with the major problem usually associated with using posted questionnaires, which is the poor response rate (Al-Razeen and Karbhari, 2004; Nasser et al, 2003; and Almahmod, 2001). Response rates of 40 to 50 per cent are common with postal questionnaires and can even be as low as 10 percent (Kerlinger, 1986 and Hussey, 1997). It was hoped that by applying self-administered questionnaires, the response rate would be increased. The fieldwork started at the beginning of December 2005 and lasted for a period of three months. Every target respondents' group was visited at the place where they were expected to be. An explanation of the process of distributing and collecting the data instruments is given in the following paragraphs.

The main places to find individual investors are the central share trading units within every commercial bank in Saudi Arabia. The researcher paid at least two visits to each one of these central share trading units operated by the ten Saudi commercial banks in the three main regions. One visit was during the morning session of these rooms and the other visit was during their evening session. Moreover, the researcher attended three meetings of the general assembly of the largest corporation in Saudi Arabia. He was able to distribute 123 questionnaires at these meetings. The share registrars of five companies offered their help by delivering the questionnaires to those investors who made contact with the registrar. Furthermore, copies of the questionnaire survey were published on financial websites, such as Zughaibi & Kabbani financial consulting and Bakheet financial advisors. These efforts enabled 295 questionnaires to be distributed.

With regard to the institutional investors, 190 were given to managers working in the sixteen mutual funds representing the whole population of institutional investors operating in Saudi Arabia and 142 questionnaires were given to analysts working in the twenty one financial analysts group representing the whole population of financial analysts operating in Saudi Arabia.

Table 7.3: Summarises the Distribution and Collection of the Questionnaires.

Subject groups	Distributed questionnaires	Returned questionnaires	Response rate
Individual investors	295	112	37%
Institutional investors	190	111	58%
Financial analysts	142	80	56%
Total	627	303	48%

7.4.1.13 Analysis of Data from the questionnaire survey:

This section describes how the primary data were analysed. After the samples were determined, the next step was concerned with the choice of appropriate statistical techniques to apply. Basically, statistical tests are classified as either parametric (classical) or non-parametric (distribution-free).

A parametric test is based on the assumption that we know certain characteristics of the population from which the sample is drawn (Bryman and Cramer, 1997). A parametric test is used when the data fulfil the following three conditions (Bryman and Cramer, 1997, p. 117):

- The level or scale of measurement is of equal interval or ratio scaling, more than ordinal
- The distribution of the population scores is normal
- The variances of both variables are equal or homogeneous.

In contrast, the non-parametric techniques are so named because they do not depend on assumptions about the precise form of the distribution of the sampled populations (Bryman and Cramer, 1997).

Basically, there are three steps affecting the choice of statistical techniques in the research approach. These are:

Type of Data: As discussed earlier, there are various types of scale on which the attributes can be measured: nominal, ordinal, interval and ratio. The vast majority of variables examined in this present study are measured by using Likert-type scales. The Likert scale is classified into five different levels, such as: 5=strongly agree and 1=strongly disagree. Other scales also used in the present study (5=completely satisfied and 1= completely unsatisfied or 5= very important and 1= not important at all), which will influence the statistical method adopted.

Characteristics of sample and variables: Another factor which affects the choice of statistical techniques is the sample's characteristics and variables. It

comprises the dependency of samples, number of groups, number of variables and variable control. In this study, the sample contains three groups (institutional analysts, financial analysts and private investors) which will affect the application of statistical techniques.

Research approach: The final vital step which affects the choice of statistical techniques is the research approach. Different approaches and statistical methodology have been adopted to investigate the relationship between the financial information and the user, the quality of financial information and users' needs. Based on the previous studies, typically, a questionnaire approach and descriptive statistics were widely used. Descriptive techniques are mainly employed to describe mean, median and standard deviation in the data collected from different sources relevant to the research sample and mainly concerned with the study during the fieldwork.

7.4.1.13.1. Statistical analyses employed in the questionnaire survey:

Since the target of the study is to measure the impact of Internet financial reporting on users, the study adopts three statistical techniques: univariate, bivariate and multivariate analysis. The following sections will provide the reader with the statistical techniques which were applied to analyse the data and justify each test. Moreover, data obtained from the survey were analysed using SPSS for Windows. Before the data were entered into SPSS format, the responses were coded.

7.4.1.13.1.1 Univariate analysis:

Univariate analysis is used when there is a single measure of a sample of objects, or if there are several measures of objects, but each variable is to be considered in isolation. The main objective of univariate analysis is to summarise the data in a form permitting the reader to gain a sense of the distribution of data over the possible range (Bryman and Cramer, 1997; Huck and Cormier, 1996).

In order to summarise and describe the data in a meaningful way there are two areas which dominate univariate analysis. The first one, measuring central

tendency (e.g. mean and median), is mainly used to identify where most of the data points are concentrated. The other one, measuring the frequency distribution (e.g. standard deviation), is more concerned with showing how different data points are spread over the possible range.

7.4.1.13.1.2 Bivariate and multivariate analysis:

Although it is important to form a picture of the data, this is insufficient when there is more than one variable. When the researcher considers two variables simultaneously, he is said to perform a bivariate analysis. When more than two variables are analysed simultaneously, the analysis is called multivariate.

Regarding the impact of Internet financial reporting on users, the objective of bivariate and multivariate analyses is to test whether there is a significant statistical difference among the different user groups. The selection of statistical tests to be applied to the data depends on many factors (Siegel and Castellan, 1998; Huck and Cormier, 1996). The four major factors are:

- The number of groups involved (independent variables),
- The numbers of subjects (cases) in each group,
- Whether the groups are related or independent and
- The measurement scale of the data values.

In the present study the number of groups was three. These could be analysed in pairs or all together. The groups were independent of each other and their perceptions were measured on an ordinal scale. For these conditions, the statisticians suggest a set of statistical procedures called non-parametric statistics.

Since there are more than two independent groups in this study, the appropriate non parametric statistical test is called the Kruskal-Wallis One-Way, commonly called the Kruskal-Wallis H test. This statistical technique is designed to test whether the different independent samples under consideration come from the same population (Siegel and Castellan, 1988).

The rejection of the null hypothesis under (within any specified α) means that there is a significant difference in, at least one of the groups considered in the test. This test, however, cannot determine which pair, or pairs, of groups have

the significant differences between them. To do this, a post hoc analysis has to be performed on each pair of groups.

The appropriate non parametric statistical test for two independent samples is called the Wilcoxon-Mann-Whitney Test, commonly referred to as the Mann-Whitney U test. As in the case of the Kruskal-Wallis H test, the objective of the Mann-Whitney U test is to determine whether the two samples under consideration come from the same population. The rejection of the null hypothesis under (within any specified α) means that there is significant difference between the groups considered in the test.

7.4.2 Stage two the index of disclosure:

The second aim of this study is to examine the level of Internet disclosure by Saudi Arabian public companies and to test its relationship with a number of corporate characteristics. Several studies have investigated the extent of Internet financial reporting and financial disclosure in general (see Table 4-1). The results of these studies revealed that Internet financial reporting disclosure varies according to several factors (see Tables 7-6 to 7-13).

As yet, no study has been reported to examine the extent of financial reporting on the Internet by all Saudi public companies in any international accounting journal (published in English).

7.4.2.1 Method of collecting the data (the disclosure index):

After the above decision, an important question arises: how the extent of Internet disclosure can be measured. Previous studies reviewed (see Chapters 4 and 5) revealed that two steps are needed to analyse the current disclosure level of Internet financial reporting.

7.4.2.1.1 First step (the list of Attributes):

The first step in the development of catalogue of criteria is the selection of items. The number of items which should be disclosed in a company website is very large (see Chapter 5). Corporate websites include a wide range of qualitative and quantitative information to help a variety of users groups when making their decisions. Moreover, Cooke and Wallace (1989, 48) reported that *'financial disclosure is an abstract concept that cannot be measured directly'*.

Nevertheless, a list of criteria has been developed to evaluate the 113 company websites. These criteria are based on the literature review (see Chapter 5) and on Loranger and Nielson's (2003) Internet reporting usability guidelines, the Investor Relations Society (IR), (2006), IR best practice website guidelines, items required by Saudi General Presentation and Disclosure Standard (see Chapter one), items considered important for Saudi users (obtained from the questionnaire survey results, see Chapter 8) and the investor relations literature

(see Chapter 3). Moreover, the attributes of items were selected on the basis of previous studies, notably Abdelsalam et al 2006, 143 items; Abdelsalam et al 2004, 114 items; Xiao et al 2004, 82 items; Marston and Polei 2004, 71 items; Loranger and Nielson, 2003; and Allam and Lymer, 2003; 36 items. Abdelsalam et al (2006) used a very comprehensive checklist for the evaluation of websites, which was used as the main basis for the development of the present set of criteria.

The full list of attributes used is presented in Appendix 5. This list identifies two stages of Internet financial reporting IFR content: general content and credibility and usability. The following two stages are defined.

Content element (see Chapter 5): This refers to what information is disclosed on the website (including general content and credibility). Key points of general content include; important financial information (e.g. balance sheet, Income statement and statement of cash flow) and shareholder information should all be provided on a company's website.

Credibility content items include those related to the audit opinion, a clear boundary between audited and unaudited information, (e.g. Lymer and Debreceeny 2003; Fisher et al, 2004; Abdelsalam et al, 2006), corporate governance, such as names and contact information for corporate directors (Jones, 2002 and Abdelsalam et al, 2006) and timely presentation of information, such as the disclosure of the latest financial information (e.g. Mercer et al, 2004; IFAC 2003; Ettredge et al, 2002; and Abdelsalam et al, 2006). These items are selected on the basis of work by Jones (2002), Primer (2003), Mercer et al, (2004) Waller (2006) and Abdelsalam et al (2006), with their definitions of credibility. Jones (2002) consider online financial reporting credible if disclosure is complete, verifiable, users are familiar with this disclosure, it is easy for users to find, use and interact with. Primer (CP 2003) defines credibility as providing transparent, timely, full and fair disclosure. Waller, (2006) mentioned that links to relevant parts of the site or to external resources such as a regulator's website or auditor's website will improve the credibility of online financial reporting. Mercer et al (2004) identify the main

factors which influence disclosure credibility: (1) situational incentives at the time of the disclosure (disclosure motivation), (2) management's credibility (i.e., competence and trustworthiness), (3) the levels of external and internal assurance and (4) characteristics of the disclosure itself. Abdelsalam et al's credibility content items (2006) include those related to the timely presentation of information, corporate governance and audit opinion.

Usability items (see Chapter 5) selected on the basis of the following definition of usability and of previous literature (see Chapter 5). Examples of these studies are: Sullivan (1996), who considered a website usable if it is user-friendly. The prime requirement of any good website is that it should be easy to navigate and intuitive to use (IR, 2006): Abdelsalam et al (2006), who mentioned that usability addresses the specifics of website design and referred to the ease of navigating the site and locating information (i.e. ease of use); Miller (1999), who mentioned that usable websites follow the same web standards because users have become accustomed to particular formats. The designer should ensure that the basic layout does not change from page to page (Miller, 1999) and finally, Jones (2002), who indicated that the objective of online reporting is to provide information in a simple form to the users. For online corporate information to be easy to use, it should be in a way which is easy to find, use and understand (Jones, 2002).

7.4.2.1.2 Second step (Scoring of the Disclosure Index):

After determining the list of items, a scoring sheet was constructed to assess the extent of disclosure achieved by each of the sample firms. Different approaches to developing a scoring mechanism can be applied. The most commonly used approach and the one adopted in this study is a dichotomous procedure in which an item scores one if something is disclosed and zero if it is not disclosed. This approach has been employed in several prior studies (e.g., Abdelsalam et al, 2006, Abdelsalam et al, 2004, Xiao et al, 2004, Marston and Polei, 2004, Loranger and Nielson, 2003; and Allam and Lymer, 2003).

Thus all of the 167 content, credibility and usability items on the checklist were scored as "1" for present or "0" for absent. Visibility is judged as good and

scored "1" if the item is either clearly noticeable on the website or easily located using a site map or search facilities; otherwise, visibility is scored as 0. An item was coded as "NA" if it was not applicable for the company being analyzed. After the initial scoring, the completed result was reviewed twice to ensure the accuracy and consistency of the data. Each dependent variable was calculated on the basis of the ratio of the actual IFR comprehensiveness index score for the company to the maximum possible index score for this company (based on the number of applicable IFR comprehensiveness index items). See Tables 7.4: Explanations of dependent and independent variables, and 7.5: comparing independent variables in this study and some major studies.

Table 7.4: Explanations of Dependent and Independent Variables

Variable	Description
Dependent variables	
Total Score	Total score for all disclosure items=167
General Content Items	Total score for all General Information =30 items
Credibility Items	Total score for all Credibility Items =56
Usability Items	Total score for all Usability Items =81 items
Independent variables	
Size	Total assets
Profitability	Return on total assets
Industry classification	5 categories; banks, industrial, cement, services & agriculture.
Stock market	1= if they are listed in the Saudi stock market 0= if not listed
BIG4	1= for a local audit firm 2= for local Audit firm affiliated with one of the Big 4
Ownership structure	
Government ownership	
Number of major shareholders	1= if government is a major shareholder 0 =if not
Percentage of Major shareholders	proportion of government ownership
Institutional ownership	
Number of major shareholders	1 =if institutional is a major shareholder 0= if not
Percentage of Major shareholders	proportion of institutional ownership
Individual ownership	
Number of major shareholders	1 =if an individual (or more) is a major shareholder 0 =if not
Percentage of Major shareholders	proportion of individual ownership
Free float	percentage of company shares which are freely traded at the stock exchange
Board structure	
Role duality	1= if the CEO is also the chairman of the board. 0= if the two positions are occupied by different individuals.
Board size	Total number of directors.

Table 7.5: Comparison Between Independent Variables in this Study and Some Major Studies

Independent variables	Debrece et al	Ettredge et al	Oyelere et al	Xiao et a.	Amir Allam	Al-motrafi
year	2002	2002	2003	2004	2006	2008
Size	√	√	√	√	√	√
Profitability	x	√	√	√	x	√
Industry	√	√	√	√	x	√
Stock market	√	x	√	√	x	√
BIG4	x	x	x	√	x	√
Ownership	x	x	x	√	x	√
Board structure	x	x	√	√	√	√

7.4.2.2 Method of collecting the data (independent variables):

As the purpose of the empirical survey is to test whether the total score achieved by a company is related to a number of independent variables, the independent variables are measured as follows (see Chapter 5 and Table 7-4): Firm size (SIZE) was measured by the total assets on 30th December 2005. Profitability (ROA) was measured as the return on total assets (ROA), based on the data from the latest available annual report (2005). Industry classification (Industry) sorted firms into five broad categories (based on ministry of commerce classification). Stock market listing (listing) was measured by a dummy variable of 1 if the company was listed on the Saudi stock market and of 0 if the company was unlisted on 30th December 2005. Type of auditing firm (auditing) was also measured by a dummy variable of 1 if the company was audited by a local audit firm affiliation with one of the Big 4 and 0 if the company was audited by a local audit firm on 30th December 2005.

The criteria used by prior research studies have also been used in this study to classify types of ownership into government, institutional, and individual ownership. Each type of ownership is measured by the number of major (mean the highest) shareholders and percentage of major shareholders (see Table 7-4). For example, the existence of government ownership is coded as "1" if government is a major shareholder and zero if not. Also, the percentage shares held by the government is shown as a proportion of the total shares used to measure the percentage of major shareholders. Moreover, the study measured free float by percentage of company shares that are freely traded at the stock exchange and are not in permanent ownership.

Two types of measure are used to test whether the internet disclosure score achieved by a company is related to board structure (role duality and board size). Role duality was measured by a dummy variable of 1 if the CEO was also the chairman of the board and of 0 if the two positions were occupied by different individuals on 30th December 2005. The total number of directors on 30th December 2005 is employed as a measure of board size.

Based on previous studies and its applicability to Saudi companies, one hypothesis has been formulated to investigate the attributes which affect the extent of Internet financial disclosure. The hypothesis to be tested is as follows:

There is no association between the number of corporate characteristics and the extent of Internet disclosure.

Moreover, based on the above discussion, the general model of the determinants of IFR is estimated as follows:

$$IFR = \alpha + \beta_1 SIZE + \beta_2 ROA + \beta_3 Industry + \beta_4 Listing + \beta_5 Auditing + \beta_6 ownership\ structure + \beta_7 board\ structure + \epsilon$$

This hypothesis has been divided into eight sub-hypotheses, according to the independent variables selected. The next section reviews the independent variables and formulates the sub-hypotheses to be tested (see Tables 7-6 to 7-13).

7.4.2.2.1 Firm size:

Evidence from the literature (see Chapters 5-6) indicates that there is a relationship between firm size and the extent of voluntary disclosure (Allam, 2006; Xiao et al, 2004; Oyelere et al, 2003; Marston, 2003; Debreceeny et al, 2002; Ettredge et al, 2001; Brennan and Hourigan 2000; Joshi and Al-Bastak, 2000; Gowthorpe and Omat 1999; Pirchegger and Wagenhofer, 1999; Ashbaugh et al, 1999; Hassan et al, 1999; Craven et al, 1999; Skinner, 1994; Chow and Wong-Boren, 1987). Two economics-based theories are largely used in the financial disclosure literature to analyse the relationship between voluntary disclosure and company size: agency theory and legitimacy theory.

Agency theory predicts a conflict between the owners of an organization and managers (see Chapter 6). Managers desire to maximize their total compensation, while owners are interested in maximizing return on investment and security prices (e.g. Hossain et al, 1994; Cooke 1989a, b, 1991, 1992;

Chow & Wong-Boren, 1987; Firth, 1980). High-quality reporting and voluntary information are techniques to mitigate this conflict to some extent and allow owners to monitor employment contracts with their managers. High-quality reporting needs highly reputed managers and reliability in managers should result in higher compensation. Consequently, agency theory reveals that if the costs of voluntary financial information disclosure are high, then large firms are more likely to have resources to adopt such a policy. Moreover, large firms generally have a diverse product range and more complex distribution networks than smaller firms. As a result, large, more complex management information systems and databases are required for management control purposes. Consequently, disclosure costs may be generally lower for larger firms. Moreover, these large firms have a greater need for funds and can therefore be expected to disclose at a higher level (Oyelere et al, 2003).

Legitimacy theory predicts that larger firms disclose more information than smaller ones (e.g. Oyelere et al, 2003; Debreceeny et al, 2002; Ettredge et al, 2002; Wilmshurst & Frost 2000; Toms, 2000; Clarke and Gibson-Sweet, 1999; Deegan & Gordon, 1996; Gray et al, 1996; Tilt 1994; Lang and Lundholm, 1993; Patten 1992; Guthrie & Parker 1989; Tinker & Neimark 1987; Chow and Wong-Boren, 1987; Watts and Zimmerman, 1986; and Hogner, 1982). The theory attempts to provide an explanation of management's motivation to disclose environmental information and voluntary disclosure. Gray et al (1996) believed that by voluntarily disclosing certain information, firm managers hope that monitoring and other costs will be reduced. Toms (2000) and Clarke and Gibson-Sweet (1999) reported that managers of bigger companies use their annual reports to disclose more and higher quality information to capitalize their investments in the community. Larger firms are subject to more public and regulatory scrutiny (Watts and Zimmerman, 1986) and thus are likely to voluntarily disclose more information to muster public support for reducing political costs and to raise capital (Oyelere et al, 2003; Ettredge et al, 2002; Debreceeny et al, 2002; Lang and Lundholm, 1993; and Chow and Wong-Boren, 1987). Debreceeny et al (2002) and Oyelere et al (2003) revealed that larger firms have a stronger incentive to enhance the corporate reputation and public

image, as they are more publicly visible. Thus increasing voluntary disclosure will reduce intervention by government.

The influence of size on disclosure has been successfully tested by studies in various countries for hard copy reporting (see Table 7-6): the USA (Cerf, 1961; Singhvi and Desai, 1971; Buzby, 1975; and Salamon and Dhaliwal, 1980) the UK (Firth, 1979), Canada (Kahl and Belkaoui, 1981), Mexico (Chow and Wong-Boren, 1987), Nigeria (Wallace, 1988), Sweden (Cooke, 1989), Spain (Wallace et al, 1994) and Saudi Arabia (Al-Razeen and Karbhari, 2004; Al-mulhem, 1997; Almodahki, 1996). Moreover, this hypothesis is consistent with many empirical Internet disclosure studies (see for example, Xiao et al, 2004; Oyelere et al, 2003; Marston, 2003; Joshi and Al-Bastak, 2000; Ashbaugh et al, 1999; Hassan et al, 1999; and Marston and Leow, 1999) which have found that in most studies size is a significant explanatory variable.

As seen in Chapter five and Table 7-6 the size of the company can be measured by a number of attributes, such as the capital employed, turnover, number of employees, company's market value and more. There is no dominant theoretical reason for selecting one rather than another. The present study used total assets to examine the relationship between size and Internet disclosure. The following hypothesis tests the association between firm size and IFR comprehensiveness:

H1 There is no significant association between company size and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 7.6: Previous Studies Examined the Effect of Company Size

study	year	country	sample	measure	Statistical Test	result
Craven & Marston,	1999	UK	206	Turnover, number of employees, total assets employed and market value	Kruskal-Wallis	+
Hassan et al	1999	Malaysia	247	Total assets	Univariate analysis	+
Pirchegger and Wagenhofer	1999	Austrian	31	Annual sale	regressions analysis	+
Ashbaugh et al	1999	USA	290	Median of total assets	regression analysis	+
Joshi and Al-Bastak	2000	Bahrain	35	Total assets	Discriminant analysis	+
Debreceeny et al	2002	Inter.	660	Market capitalisation	regression analysis	+
Ettredge et al	2002	AIMR	220	Market value	regression analysis	+
Marston	2003	Japan	99	Turnover & capital employed	Kruskal-Wallis	+
Oyelere et al	2003	New Zealand	229	Market capitalisation and total assets	Univariate test	+
Xiao et al	2004	China	300	Total Market capitalisation	regression analysis	+
Amir Allam	2006	inter	250	Market capitalisation	regression analysis	-
Saudi studies hard copy report						
Almodahki	1996	Saudi	33	Total assets	Bivariate analysis	-
Al-mulhem	1997	Saudi	40	Total assets	regression analysis	+
Al-Razeen and Karbhari	2004	Saudi	68	Total owner's equity	regression analysis	+

7.4.2.2.2 Profitability:

Agency theory, signalling theory and legitimacy theory (see Chapter 6), all indicate that firms with higher levels of profitability are more likely to disclose additional information and adopt new media such as the web in an attempt to enhance their image and to convince investors that the firm is profitable (e.g. Xiao et al, 2004; Oyelere et al, 2003; Marston, 2003; Healy and Palepu, 2001; Verrecchia, 2001; Craven and Marston, 1999; ; Hassan et al, 1999; Lennox, 1999; Inchausti, 1997; Hossain et al, 1995; Wallace et al, 1994; Ng & Koh, 1994; Skinner, 1994; Malone et al, 1993; Dye, 1993; Deegan and Hallam, 1991; Chow and Wong-Boren, 1987; Morris, 1987; Watts & Zimmerman, 1986; Leftwich, 1983; DeAngelo, 1981; Spence, 1973; and Akerlof, 1970). Agency theory, for example, predicts that there is a positive relationship between high-quality reporting and audit reputation and a good reputation should result in a higher contract. As a result, profitable firms disclose more information than non profitable because they are more likely to have the resources to hire reliable auditors to enhance the reliability of their financial reporting.

Signalling theory also suggests that there is an association between company profitability and voluntary information (Xiao et al, 2004; Marston, 2003; Verrecchia, 2001; Craven and Marston, 1999; Deegan and Hallam, 1991). Signalling theory revealed that managers of very profitable firms will use external information in order to obtain personal advantages (see Chapter 6 for more details). Therefore they will disclose detailed information in order to support the continuance of their positions and compensation arrangements (Inchausti, 1997 and Wallace et al, 1994). Moreover, shareholders will be interested in giving "good news" to the market in order to avoid the undervaluation of their shares and to attract capital or to reduce the risk of being undervalued by the market (Grossman and Hart, 1980).

Many authors have discussed voluntary and social disclosure practices within the theoretical framework of legitimacy theory (e.g. Oyelere et al, 2003; Ettredge et al, 2002; Debreceeny et al, 2002; Toms, 2000; Wilmshurst & Frost 2000; Clarke and Gibson-Sweet, 1999; Deegan & Gordon, 1996; Tilt 1994; Lang and Lundholm, 1993; Patten 1992; Guthrie & Parker 1989; Watts and

Zimmerman, 1986; Tinker & Neimark 1987; Hogner 1982). These studies provide an explanation of management's motivation to disclose voluntary information. Ng & Koh (1994), for example, claimed that profitable companies, which are particularly under public scrutiny, may apply self-regulation mechanisms (such as voluntary disclosures) to try and avoid external regulation. Internet reporting may be one form of such disclosures.

From Table 7-7 it can be seen that profitability is measured in a number of different ways. Rates of return (net income divided by net assets), earnings margin (net income divided by sales) and net profit are examples of profitability measures. For the present study, the return on total assets is chosen as the measure of firm profitability.

$$\frac{\text{Profit after Zakat (tax)} \times 100}{\text{Total assets}}$$

The following hypothesis tests the association between firm profitability and IFR comprehensiveness:

H2 There is no significant association between profitability and overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 7.7: Previous Studies Examined the Effect of Company Performance

study	year	country	sample	measure	Statistical Test	result
Ashbaugh et al	1999	USA	290	median return on assets	regression analysis	-
Hassan et al	1999	Malaysia	247	net profit before tax	Univariate analysis	+
Joshi and Al-Bastak	2000	Bahrain	35	profit	Discriminant analysis	-
Ettredge et al	2002	AIMR	220	annual stock return	regression analysis	-
Marston	2003	Japan	99	pre-tax profit	Kruskal-Wallis	-
Oyelere et al	2003	New Zealand	229	pre-tax profit /capital employed return on equity and return on total assets	Univariate test	-
Xiao et al	2004	China	300	return on total assets	regression analysis	-
Saudi studies hard copy report						
Al-mulhem	1997	Saudi	40	return on total assets	regression analysis	+
Al-Razeen and Karbhari	2004	Saudi	68	Return to equity	regression analysis	-

7.4.2.2.3 Industry classification:

From the literature review (see Chapter 5 and Table 7-8), it appears that the extent of Internet disclosure is expected to be identical throughout all firms in the same industry (Xiao et al, 2004; Joshi and Al-Bastaki, 2000; Craven and Marston, 1999; Wildstrom, 1997; and Marston and Shrivess, 1996).

For example, signalling theory explains and predicts a clear relationship between industry and voluntary disclosure (e.g. Xiao et al, 2004; Craven and Marston, 1999; Lymer, 1997; Wildstrom, 1997; Inchausti, 1997; and Watts and Zimmerman, 1986). Cooke (1991) believed that there may be historical reasons why some industries may disclose more voluntary information than others. This may be because some industries have a distinct public profile. Cooke (1991) suggested that if there is one dominant firm in an industry which has high levels of disclosure, other companies in the industry may follow. Watts and Zimmerman (1986) claimed that if a firm does not adopt the same corporate reporting strategy as the others from the same industry, it could be interpreted by the market as a signal of "bad news".

Legitimacy theory also predicts a clear relationship between industry and voluntary disclosure (e.g. Toms, 2000; Clarke and Gibson-Sweet, 1999). For example, Toms (2000) stated that the larger the firm and the more controversial the sector in which the organisation operates, the higher the quality of information disclosed, because some industrial sectors are more in the public eye than others, such as the banking sector. Innovation theory suggests that industry membership may influence firms to follow earlier fads adopted from other firms in the same sector or location, to reduce uncertainty and to appear legitimate (e.g. Xiao et al, 2004; Peter Doyle, 1998; Abrahamson 1991; and DiMaggio and Powell, 1983). For the purpose of the present study, firms in Saudi Arabia are classified into five broad categories, namely, banks, industrial, cement, services and agriculture. For this purpose, the following hypothesis is formulated:

H3 There is no significant association between industry type and overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 7.8: Previous Studies Examined the Effect of Industrial Sector

study	year	country	sample	measure	Statistical Test	result
Craven & Marston	1999	UK	206	6 sectors	Chi-square	-
Hassan et al	1999	Malaysia	247	12 sector	Univariate analysis	-
Ashbaugh et al	1999	USA	290	7 sectors	regression analysis	-
Gowthroe & Amat	1999	Spain	379	27 sectors	percentage	+
Joshi and Al-Bastak	2000	Bahrain	35	3 sectors	discriminant function analysis	-
Ettredge et al	2001	USA	490	17 industries	ANOVA test	+
Debreceeny et al	2002	Inter.	660	Technology and non	regression analysis	+
Marston	2003	Japan	99	4 sectors	Chi-square	+
Oyelere et al	2003	New Zealand	229	6 sectors	Chi-square	+
Abdelsalam et al	2004	India	30	2 sectors	regression analysis	-
Xiao et al	2004	China	300	IT & Non IT	regression analysis	+
Saudi studies hard copy report						
Almodahki	1996	Saudi	33	5 sector	Bivariate analysis	-
Al-Razeen and Karbhari	2004	Saudi	68	8 sectors	regression analysis	+

7.4.2.2.4 Stock market listing:

Stock market listing is considered to be another factor which affects Internet reporting disclosure. It has been argued that firms whose shares are listed on a stock market are more likely to have a website and to provide more information than are non-listed firms. Evidence from the empirical studies (see Chapter 5 and Table 7-9) revealed that there is an association between stock market listing and disclosing financial information (Eng and Mak 2003; Chau and Gray 2002; Ferguson et al, 2002; Verrecchia, 2001; Hassan, 1999; Craven and Marston, 1999; Cooke, 1998; Burkart et al, 1997; Graves and Waddock 1994; Wallace et al, 1994; Malone et al, 1993; Fama and Jensen 1983; Leftwich et al, 1981; Watts, 1977; Jensen & Meckling, 1976; Watts, 1977; and Jensen & Meckling, 1976).

Governance theory, agency and signalling theory found that listed firms would more voluntarily disclose information than non-listed. More extensive voluntary disclosures and a wider dissemination of financial information can also create an impression of greater transparency, which may be particularly important for the stock market. Additional disclosure may help the listed companies to attract new shareholders, thus enabling companies to maintain a healthy demand for shares with a liquid market. Moreover, voluntary disclosure may help to mitigate the potential conflicts between shareholders and managers and satisfy the needs of users. Supporting this idea, Malone et al (1993), Wallace et al (1994), Cooke (1998), Hassan (1999), Craven and Marston (1999) and Ferguson et al (2002) found that firms quoted on stock exchanges make more information disclosures. Verrecchia (2001) claimed that, in order for high-quality firms to attract investors, management needs to convince investors by high-quality reporting, by adopting high quality accounting standards and having their stock listed on a high quality exchange.

Legitimacy theory also predicts that there is a link between voluntary disclosure and listed firms. For example, Toms (2000) claimed that listed firms are subject to more public and regulatory scrutiny and thus are likely to voluntarily disclose more information to muster public support for reducing political costs and to

raise capital. Ettredge et al (2002); Debreceeny et al (2002); and Oyelere et al (2003) claimed that listed firms have a stronger incentive to enhance their corporate reputation and public image, as they are more publicly visible. Thus increased voluntary disclosure will increase the demand for shares and reduce government intervention.

For the purposes of the present study, listed firms will include all the public companies stock listed in Tadawul (the Saudi Stock Market). Firms are classified as 1 if they are listed in the Saudi stock market and 0 if not. To find whether or not listing has an impact on IFR, the following hypothesis is developed:

H4 There is no significant association between stock market listing and overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 7.9: Previous Studies Examined the Effect of Stock Market Listing

study	year	country	sample	measure	Statistical Test	result
Debreceeny et al	2002	Int.	660	Listed and non	regression analysis	-
Marston	2003	Japan	99	Overseas listed	Chi-square test	-
Oyelere et al	2003	New Zealand	229	Local and non local Co.	Chi-square	+
Xiao et al	2004	China	300	Accounting standard follow	regressions analysis	-
Saudi studies hard copy report						
Al-Razeen and Karbhari	2004	Saudi	68	Listed and non	regression analysis	-

Table 7.10: Previous Studies Examined the Effect of Auditor Type

study	year	country	sample	measure	Statistical Test	result
Hassan et al	1999	Malaysia	247	Big 5 & Non	Univariate analysis	-
Xiao et al	2004	China	300	Big 5 & Non	regression analysis	-
Abdelsalam et al	2004	India	30	Big 4	multivariate regression	+
Saudi studies hard copy report						
Almodahki	1996	Saudi	33	Local auditor and non	Bivariate analysis	-
Al-Razeen and Karbhari	2004	Saudi	68	Local auditor and non	regression analysis	+

7.4.2.2.5 Type of auditing firm:

Signalling theory revealed that there is a significant association between brand name auditors and the disclosure of voluntary financial information (e.g. Eccles et al, 2001; Verrecchia, 2001; Dopuch, King and Schwartz, 2001; Healy and Palepu, 1995; O'Keefe, et al, 1994; Healy and Palepu, 1993, Creswell and Taylor, 1992; and DeAngelo, 1981). For example, Titman and Trueman (1986) and Verrecchia, (2001) suggested that the credibility of a firm's financial statements is enhanced when the firm hires a brand name auditor or applies high standards of accounting. DeAngelo (1981) and O'Keefe, Simunic and Stein (1994) claimed that the large audit firms (the Big 4) can offer high quality audits because they have the resources to perform comprehensive audits and less motivation to compromise on audit quality. Creswell and Taylor (1992) revealed that a firm's choice of auditor is likely to be associated with the decision to disclose more or less information.

Agency theory suggests that auditing helps to alleviate the conflicts of interest between management and shareholders, mainly because they have more to lose from damaging their reputation (e.g. Xiao et al, 2004; Lennox, 1999; Hassan et al, 1999; Hossain et al, 1995; Wallace et al, 1994; Dye, 1993; Malone et al, 1993; and DeAngelo, 1981). The disclosure variation between firms audited by the Big 4 and non Big 4 might be caused by the tendency of the Big 4 firms to be independent from clients' pressure for limited disclosure, to maintain their own reputation.

The results of previous studies (see Chapter 5 and Table 7-10) are not consistent. Alrazeen (1999) and Abdelsalam et al (2004) confirmed the hypothesis, but Almodahki (1999), Hassan et al (1999) and Xiao et al (2004) did not find any relationship. For the purposes of the present study an auditor firm is classified as 1 if the company is audited by local audit firm affiliated with one of the Big 4 and 0 if the company is audited by a local audit firm. To check whether or not the audit firm has an impact on the extent of Internet disclosure in Saudi public firms, the following hypothesis will be tested:

H5 There is no significant association between companies audited by the Big 4 international audit firms and the overall IFR index of disclosure, general content

index of disclosure, credibility index of disclosure and usability index of disclosure.

7.4.2.2.6 Ownership structure:

Three types of ownership structure (government, institutional, and individual ownership) will be examined.

7.4.2.2.6.1 Government ownership:

Government ownership is considered an important factor affecting the amount and channel of disclosure (see Chapter 5 and Table 7-12). When the government owns substantial amounts of shares (according to governance theory and agency theory), firms have little motivation to disclose information voluntarily because the demand for public disclosure from them is weaker than that for disclosure by companies which have wider ownership (e.g. Milne, J., 2006; Arnoud et al, 2005; Eng and Mak, 2003; Cadbury, 2002; Chau and Gray, 2002; Cutting and Kouzmin, 2000; Burkart et al, 1997; Pound, 1995; Graves and Waddock, 1994; Cadbury Committee, 1992; Forker, 1992; Watts, 1986; Fama and Jensen, 1983; Leftwich et al, 1981; and Jensen and Meckling, 1976). Moreover, government firms have little motivation to maintain a healthy demand for shares with a liquid market (e.g. Xiao et al, 2004; Doyle, 1998; Abrahamson 1991; and DiMaggio and Powell, 1983).

Government companies are run like private commercial enterprises, but may have to look beyond pure profit goals and consider goals which are related to the interests of the nation (Arnoud et al, 2005), while possibly conflicting with the commercial objectives of the enterprise (Mak and Li, 2001). In other words, enhancing shareholder value may not always be the primary objective of government companies. Xiao et al (2004), for example, claim that government companies may place a high priority on maintaining social order and effecting wealth redistribution (such as employing more workers) rather than efficiency or profitability. Furthermore, government companies receive government funding and are also likely to have easier access to different sources of finance than non- government companies do (Xiao et al, 2004). Since the Saudi Arabia government owns substantial amounts of the shares of several companies in

Saudi Arabia, governance theory predicts that the percentage of government ownership of a company's shares will be associated negatively with the extent of Internet financial reporting.

For the purposes of the present study, firms are classified under two headings (for hypothesis 6a), scoring 1 if government is a major shareholder and 0 if not. Hypothesis 6b represents the proportion of government ownership. The following hypothesis will be tested:

H6a There is no significant association between the number of major government owners of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H6b There is no significant association between the proportion of government ownership of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

7.4.2.2.6.2 Institutional ownership:

From the literature review (see Chapter 5 and Table 7-12), it appears that the extent of Internet disclosure is expected to be associated with the degree of institutional ownership (Abdelsalam et al, 2007; Ajinkya, et al, 2005; Eng and Mak, 2003; Chau and Gray, 2002; Bushee and Noe, 2000; Schadewitz and Blevins, 1998; El-Gazzar, 1998; Shleifer and Vishny, 1997; Graves and Waddock, 1994; Graves and Waddock, 1994).

For example, agency and corporate governance theory suggests that potential interest conflicts between management and shareholders are less common in companies with closely held shares than in more widely held companies (Hossain et al, 1994). Consequently firms with large shareholder blocks, e.g., large family ownership of firms are expected to disclose less information than companies with large ownership diffusion, because the potential for conflicts between principal and agent is less (Burkart et al, 1997 and Fama and Jensen, 1983). Furthermore, Shleifer and Vishny (1997) claimed that the owners of equity capital, if large shareholder blocks, e.g., large family and institutional

shareholdings, may have control rights through board membership. Marston and Polei (2004) also mentioned that investors with large equity stakes in a company can obtain information about the company from internal sources. They do not rely on published information only. It can be concluded that more closely held companies will disclose less information on the Web because their large investors "can access internal sources of information".

Corporate governance theory also predicts a clear relationship between institutional ownership and Internet disclosure (Abdelsalam et al, 2007; Ajinkya, et al, 2005; Xiao et al, 2004; Al-Razeen and Karbhari, 2004; Eng and Mak, 2003). Eng and Mak (2003), for example, claimed that in a situation where an institution owns substantial amounts of shares, firms have little motivation to disclose information voluntarily because the demand on them for public disclosure is weaker than on companies which have a wider ownership.

This study also examines whether institutional ownership has an impact on the association with financial disclosures, because a substantial number of Saudi firms are institutionally owned. For the purpose of the present study, firms are classified under two headings (for hypothesis 7a), scoring 1 if an institution is a major shareholder and 0 if not. Hypothesis 7b represents the proportion of institutional ownership. For this purpose, the following hypotheses are formulated:

H7a There is no significant association between the number of major institutional owners of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H7b There is no significant association between the proportion of institutional ownership of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

7.4.2.2.6.3 Individual ownership:

Diffused ownership is considered to be another factor which affects Internet reporting disclosure. It has been argued that firms whose ownership is spread

are more likely to have a website and to provide more information than are close held firms. Evidence from the empirical studies (see Chapter 5 and Table 7-11'12) reveals that there is an association between ownership structure and disclosing financial information (Haniffa and Cooke, 2006; Ajinkya, et al, 2005; Marston and Polei, 2004; Xiao et al, 2004; Abdelsalam et al, 2004; Al-Razeen and Karbhari, 2004; Eng and Mak 2003; Pichegger and Wagenhofer, 999). Governance theory and agency theory found that companies whose ownership is diffused would more voluntarily disclose information than more closely held companies.

Agency theory explains and predicts that managers of companies whose ownership is diffuse have an incentive to disclose more information to assist shareholders in monitoring their behaviour (Oyelere et al, 2003). Thus Oyelere et al (2003) claimed that the IFR allows companies to provide users with more comprehensive, in-depth, and timely information than that included in traditional financial statements, and in a manner which may reduce the users' information costs

In addition, investors who own only a small percentage of shares in a company have limited access to information about the enterprise. It can be assumed that these investors will use the Internet to gather firm-specific information because data from other sources are more difficult to obtain (Marston and Polei, 2004). Consequently, it is likely that firms with a more dispersed ownership of shares will disclose more information on the Internet to provide their shareholders with the necessary information.

As seen in Chapter Five, diffused ownership can be measured by a number of attributes, such as the number of major shareholders and the percentage of major shareholders. For the purposes of the present study, firms are classified (for hypothesis 8a) as 1 if one individual (or more) is a major shareholder and 0 if not. Hypothesis 8b represents the percentage of major individual ownership. Hypothesis 8c represents the percentage of free float. This variable represents the percentage of company shares which are freely traded on the stock exchange and which are not in permanent ownership. To find whether or not

diffuse ownership has an impact on IFR, the following hypotheses are developed:

H8a There is no significant association between the number of major individual shareholders of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H8b There is no significant association between the proportion of individual shareholders of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H8c There is no significant association between the percentage of company shares which are freely traded on the stock exchange and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 7.11: Previous Studies Examined the Effect of Ownership Structure (Free Float)

study	year	country	sample	measure	Statistical Test	result
Pichegger & Wagenhofer	1999	Austrian	32	% of shares offered for public	regressions analysis	+
		German	30			-
Marston and Polei	2003	German	50	% of shares offered for public	regressions analysis	-
Abdelsalam et al	2004	India	30	% of shares offered for public	multivariate regression	+

Table 7.12: Previous Studies Examined the Effect of Ownership Structure

study	year	country	sample	measure	Statistical Test	result
Government shareholders						
Eng and Mak	2003	Singapore	158	% if government ownership	regression analysis	+
Xiao et al	2004	China	300	% if government ownership	regression analysis	-
government shareholders (Saudi studies hard copy report)						
Al-Razeen and Karbhari	2004	Saudi	68	% if government ownership	regression analysis	+
Institution shareholders						
Eng and Mak	2003	Singapore	158	% if block ownership	regression analysis	-
Xiao et al	2004	China	300	% if block ownership	regression analysis	-
Chiang	2005	Taiwan	225	% if block ownership	multivariate regression	-
Abdelsalam et al	2007	UK	115	% if block ownership	regression analysis	-
Kelton and Yang	2008	USA	284	% if block ownership	regression analysis	-
Individual shareholders						
Ashbaugh et al	1999	USA	290	% of shares held by individual	regression analysis	-
Oyelere et al	2003	New Zealand	229	% of shares held by individual	regression analysis	-
Xiao et al	2004	China	300	% of shares held by individual	regression analysis	+
Abdelsalam et al	2007	UK	115	number of shareholders	regression analysis	-

7.4.2.2.7 Board structure

Two types of board structure (role duality and board size) will be examined.

Role duality

Evidence from the literature (see Chapter 5 and Table 7-13) suggests that firms with CEO duality are more likely to be associated with lower levels of voluntary disclosure since the board is less likely to be effective in monitoring management and ensuring a higher level of transparency (Abdelsalam et al, 2007; Gul and Leung, 2004; Haniffa and Cooke, 2002; Worrell et al, 1997; Finkelstein and D'Aveni, 1994; Brickley et al, 1994; Whittington, 1993; Millstein, 1992; Mallette and Fowler, 1992; Mallette and Fowler, 1992; Rechner and Dalton, 1991; Carver, 1990; Zahra & Pearce, 1989; Eisenhardt, 1989; Weisbach, 1988; Dalton and Kesner, 1987; Chaganti et al, 1985 Fama and Jensen, 1983). Two economics-based theories are largely used in the financial disclosure literature to analyse the relationship between voluntary disclosure and role duality: agency theory and corporate governance theory.

Consistent with governance theory arguments, checking and balancing the powers of top management are diminished or altogether eliminated (with CEO duality) because power is concentrated in one individual (Gul and Leung, 2004; Haniffa and Cooke, 2002; Chaganti et al, 1985). The person who occupies both roles would tend to withhold unfavourable information from outsiders (Fama and Jensen, 1983). Forker (1992) asserts that a dominant personality in both roles poses a threat to monitoring quality and is detrimental to the quality of disclosure. Indeed, according to Mallette and Fowler (1992), duality may limit a board's ability to monitor the organization. Abdelsalam et al (2007) provided additional support for separation in this argument. They (2007, p15) asserted that "when the CEO is also chair, board effectiveness in the performance of its governing function may be compromised since the CEO may be capable of controlling board meetings, selecting agenda items, and selecting board members". Furthermore, Worrell et al (1997) reported that such lower levels of transparency might be used to conceal fraud and incompetence.

Grounded in agency theory, dual roles represent a potential for conflict of interests. More specifically, CEO duality indicates a potential for management to behave opportunistically at the shareholders' expense (Eisenhardt, 1989; Fama and Jensen, 1983; Weisbach, 1988). Fama and Jensen (1983), for example, point out that CEO duality signals the absence of separation of decision control and decision management. This is because vesting the power of the CEO and the chairman of the board in one person creates a strong individual power base, which could constrain the board's ability to exercise effective control (Worrell et al, 1997; Finkelstein and D'Aveni, 1994; Brickley et al, 1994; Whittington, 1993; Millstein, 1992; Mallette and Fowler, 1992; Carver, 1990). Moreover, Molz (1988) reported that firms with CEO duality are considered to be more managerially dominated. However, some researchers argued that a role duality structure promotes better communication and information flow between management and the board of directors, and that better communication can lead to better decision making by the board (Mathieu et al, 2006; Brickley et al, 1997; Baliga and Moyer, 1996).

For the purposes of the present study, role duality is measured by a dummy variable coded "1" if the CEO is also the chairman of the board and "0" if the two positions are occupied by different individuals. The following hypothesis will be tested:

H7a There is no significant association between role duality and overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Board size:

Board size listing is considered to be another factor which affects Internet reporting disclosure. Evidence from the empirical studies (see Chapter 5 and Table 7-13) revealed that there is an association between voluntary financial disclosure and board size (e.g. Mathieu et al, 2006; Arcay and Vazquez, 2005; Chiang, 2005).

Based on agency theory, a small board enables a company to monitor the performance of corporate executives effectively and with less conflict. The main reasons behind this are that a small board is more cohesive, more manageable and more flexible in the decision-making process than a larger board. Supporting this idea, Shaw (1981), Chaganti et al (1985), Lipton and Lorsch (1992), Yermack (1996), Vafeas (2000), Arcay and Vazquez (2005), and Mathieu et al (2006) found that firms with small board size disclose more information or perform more efficiently.

However, Cheng and Courtenay (2006); Mathieu et al (2006); Goilden and Zajac (2001); Jensen (1993); Judge and Zeithaml (1992); Pearce and Zahra (1991 and 1992); Kosnik (1990); Singh and Harianto (1989); Mintzberg (1983); and Pfeffer (1972 and 1973) found (on the basis of corporate governance theory) that a board which is too large would be more effective than a smaller board. The main idea behind this hypothesis is that, first, larger boards create an impression of greater expertise, diversity of background, knowledge and intellect, which may improve the quality of strategic decisions. Second, they impede the CEO from dominating the board of directors and maintain shareholder interests. Third, they help the corporation to take important decisions over environmental changes. Fourth, they mitigate the potential conflicts between the firm and external forces.

In addition, previous studies found extreme variations in board size across countries. Chiang (2005), for example, conclude that the optimal number of directors is a dilemma for companies. Based in corporate governance theory Lipton and Lorsch (1992) proposed that the preferred size of the board of directors should be eight or nine members, with a maximum of ten people. Jensen (1993) also maintained that when board size exceeds seven or eight directors, they are likely to function less effectively and are much easier for CEOs to control. Among other things, Holthausen and Larcker (1999) proposed limiting the size of boards to nine or ten directors. Arcay and Vazquez (2005) mentioned that, in Spain, the Olivencia Code recommends that boards should be composed of 5–15 members. Similarly, Chiang (2005) found that, in Taiwan, board size ranges from a minimum of four members to a maximum of 13

members, with a mean of about eight members. The average board size of a British company in 1996 was 7, whereas, at the other extreme, some of the Japanese companies had around 60 directors on their boards (Dwivedi and Jain, 2005).

For the purposes of the present study, the total number of directors is employed as a measure of board size. To find whether or not board size has an impact on IFR, the following hypothesis is developed:

H7b There is no significant association between board size and overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 7.13: Previous Studies Examined the Effect of Board Structure

study	year	country	sample	measure	Statistical Test	result
Role duality						
Gul and Leung	2004	Hong Kong	385	dummy variable	multivariate regression	-
Arcay and Vazquez	2005	Spain	91	dummy variable	multivariate regression	-
Chiang	2005	Taiwan	225	dummy variable	multivariate regression	-
Cheng and Courtenay	2006	Singapore	104	dummy variable	multivariate regression	-
Abdelsalam et al	2007	UK	115	dummy variable	multivariate regression	-
Kelton and Yang	2008	Canada	248	dummy variable	multivariate regression	-
Board size						
Arcay and Vazquez	2005	Spain	91	dummy variable	multivariate regression	-
Chiang	2005	Taiwan	225	total number of directors	multivariate regression	-
Mathieu et al	2006	Canada	122	dummy variable	multivariate regression	+
Cheng and Courtenay	2006	Singapore	104	total number of directors	multivariate regression	-

7.4.2.3 Secondary Data Sampling:

As was mentioned above, the second aim of this study is to examine the level of Internet disclosure by Saudi Arabian public companies and to test its relation with a number of corporate characteristics. With regard to the above discussion and considering the Saudi Arabian environment, an attempt was made to specify a sampling frame which is appropriate for the present study. The final sample selection is based on the following factors; first, it consists of all the Joint Stock Companies in Saudi Arabia both listed in the Stock Market and unlisted. Second, this sample in addition represents all the sectors in the study environment. Third, the study sample also represents companies of all sizes. According to the database of the Companies Department in the Ministry of Commerce and the Saudi Stock Market Guide published by Zughaibi & Kabbani Financial Consulting in the second quarter of 2006, there are 140 Joint Stock Companies in the Kingdom of Saudi Arabia. Of these, 27 were deleted for the following reasons: 1) there was no financial information because they were newly established (23 companies, which were established after 30-12-2004: 15 in the services sector, 6 in the industrial sector, one in the banking sector and one in the cement sector); 2) second, they were part of another company's website (only 3 companies in the industrial sector; 3) under liquidation (one company in the industrial sector). The final sample consists of 113 companies which are classified into five sectors (see Table 7-14), namely, Banking (10), Industrial (42), Cement (9), Services (42) and Agricultural (10). A list of the companies included in the survey is presented in Appendix (6). After the sample is identified, the next step was to collect the data.

Table 7.14: The Final Sample Included in the Survey Classified by Industry

Sector	No
Banking	10
Industrial	42
Cement	9
Services	42
Agricultural	10
Total	113

The TADAWUL websites (the official site of the Saudi Stock Market) at www.tadawul.com.sa, Ministry of Commerce at www.commerce.gov.sa and the Saudi Network Information Center (SaudiNIC) at www.saudinic.net.sa were used to locate the homepages of all the companies included in the survey. In some rare situations, when a few companies' websites could not be located, other sources were used (e.g. www.google.com.sa, www.saudia-online.com and www.gulfbase.com). The remaining companies were contacted by telephone to find out whether or not they had established a corporate websites and if so what their web addresses were. Data for the Independent Variables (e.g. size and profitability, etc) were obtained from several sources. These included: the Saudi Stock Market Guide published by Zughaibi & Kabbani Financial Consulting, in the second quarter of 2006, the TADAWUL website, the Ministry of Commerce database and by contacting some companies directly.

7.4.2.4 Pilot Study of the Secondary Data:

After this was done, a pilot test was made in July 2006 to examine the selected websites in the Saudi environment (two companies websites from each sector were reviewed). As a result, the checklist was revised to delete a few items where the applicability of the content or usability item could not be assessed by the researcher (such as providing data in XML format, presenting IFR in different ranges packaged for each group of users and allowing users to access company database). This was especially necessary, given the general standards of presentation and disclosure and the Internet complications of Saudi Arabia (see Chapter 2). Abdelsalam et al (2004) asserted that deleting these checklist items was necessary to ensure companies were not penalized for the non-disclosure of non-applicable items.

After the final disclosure index was finalised, all the Saudi companies' websites were downloaded for analysis. Considering the data accuracy and the nature of the Internet as subject to dynamic change, the researcher used Offline-Explorer-Pro to download the all Saudi companies pages on the same day, 17 August 2006. Offline Explorer Pro allows up to 500 websites to be downloaded

for later offline viewing and browsing. It supports all modern web technologies, including Flash, XML, Director and real media.

7.4.2.5 Statistical tests of the Secondary Data:

Regarding the current level of Internet financial disclosure, two statistical techniques are considered. The first one mainly describes the data in general, for instance, its numbers and percentage. The objective of the second is to find an explanation of variations in the Internet financial reporting by Saudi public companies. The present study will examine the relationship between company Internet disclosure and company characteristics (e.g. company size, profitability, industry classification, and stock market listing). Since the Internet financial disclosure is related to more than one company's characteristics, two statistical techniques are used (correlation and multiple regression analysis)

Correlation is a test to discover whether a change in a variable is associated with a change in another variable. The correlation test discovers the directions of association (positive or negative), the strength of the association and whether is statistically significant (SPSS, 2005). Pearson's correlation technique (since the continuous variables are measured on a scale) will be used to test the continuous independent variables and the Kruskal-Wallis One-Way and Wilcoxon-Mann-Whitney tests will be used to test the categorical independent variables.

Since the level of Internet disclosure is linked to more than one company's characteristics, the effect of such characteristics (the independent variables) on the disclosure level (the dependent variables) should be considered simultaneously. This is called multivariate analysis. The most suitable multivariate technique is the multiple regression analysis. This is because the association between the level of disclosure and a company's characteristics is a dependence relationship and the dependent variable (the disclosure level) is measured on a metric scale. In this study, four regression models are developed, one for each disclosure index (i.e., an overall IFR index of disclosure, the level of the general content index of disclosure, the level of credibility index of disclosure and the level of usability index of disclosure).

7.5 Ethical Implication:

The British Sociological Association's statements of ethical principle states:

To maintain the independence and integrity of sociology as a discipline, [there should be] freedom to research and to study, publish and disseminate the results of sociological research, saving that in the pursuit of these ends they [researchers] should remember at all times their responsibility to safeguard the proper interests of those studied or affected (Burgess, 1984: 123).

In essence, this principle requires researchers to ensure that no harm is done to the participants and those affected by the outcomes of the study. It is the responsibility of researchers to ensure that the benefits of the research outweigh the cost to those affected by the study.

The main sources of possible ethical issues of this study may come from the data collection methods, the respondents and the dissemination of research reports. In the case of this study, the questionnaire survey might pose similar ethical implications. In negotiating access, the researcher had to ensure that the people to whom he had access were not deceived or coerced into participating in the survey. The objectives and purpose of the research were clearly stated and any implications to the person and the organisation were pointed out to enable them to make an informed consent. The researcher avoided a covert approach, which is generally considered as unethical (Hakim, 1987; Patton, 1990; and Oppenheim, 1992; Gall et al, 2003). In addition, the participants' right to privacy and right to refuse to answer certain questions were respected.

The study also involved analyses of company websites, financial reporting and some financial publications. It was foreseen that not all of these documents were available publicly. Some of this information was collected from private organisations, such as Zughaibi & Kabbani Financial Consulting. It was necessary to employ a non-coercive, non-deceptive manner in requesting the information:

In the dissemination of the results of this study, anonymity and confidentiality are maintained. The names and positions of the respondents are not identified; instead they were identified by a coding system. The researcher also honours

any commitments made to the participants, such as to provide them with the results of research.

7.6 Conclusion:

This chapter has documented various themes associated with the empirical approach adopted for this study. These are composed of research design, research questions and hypotheses, the source and collection of data, questionnaires and the index of disclosure design, sampling technique and the choice of statistical techniques. Finally, as with other research in social science, there is a need to reflect on the ethical implications of the study. The findings and statistical results will be presented in the two chapters which follow (8 and 9).

Chapter 8: Questionnaire Analysis

8.1 Introductions:

In Chapter 3 it was claimed that information technology (IT) was changing everything. It represents a new, post-industrial paradigm of wealth creation which is replacing the industrial paradigm and is profoundly changing the way in which business is done. Because of these changes, the decisions which users must make nowadays are very different from past ones. If the objective of accounting information is to support business decision-making and the users' need and types of decision are changing, then it is natural to expect accounting to change – whether internal or external (Elliott, 1992).

Users of financial information can no longer take accurate decisions with today's accounting information (Elliott, 2002). Thus, it is important to investigate the perceptions of Saudi users (in the Saudi Stock Market) concerning the disclosure of financial reporting on the Internet (IFR). To this end, a questionnaire was designed and three groups were invited to take part in the research survey. The groups were private investors, financial analysts and institutional investors participating in the Saudi Stock Market.

The presentation of the data analysis follows the same sequence as that of the questionnaire. The remaining parts of this chapter proceed as follows. Section 8.2 contains descriptive analysis: respondent location, education level and major degrees, respondents' age, investment activities, Internet experience, place of Internet access, Internet skills, Internet use per week, types of information, online financial sources and what part of the website they find most attractive. The second section, 8.3, contains an explanatory analysis: it focuses on users' satisfaction with the Internet in Saudi Arabia, the information sources for companies in Saudi Arabia, respondents' perceptions of the advantages and then the disadvantages of Internet financial reporting, respondents' perceptions of the quality of Internet financial reporting and respondents' needs in Internet financial reporting.

8.2 Descriptive analysis:

Participants in this study comprised three groups: private investors, financial analysts and institutional investors. The personal background information which they were asked for was: their location, level of education, major degrees and age. The response to these background questions is reported in the following sections.

8.2.1 Respondents' location:

The first question of the questionnaire dealt with the respondents' types. It can be seen from Table (8-1) that 37 percent of the target sample were private investors, 37 percent financial analysts and 26 percent institutional investors. It also reveals that most of the target sample is located in the Western region (45%), which is considered the heart of the business sector in Saudi Arabia. Thus, the respondents from this region tend to have more knowledge of business. The results also indicate that 32 percent of the total sample are located in the Central region and 23 percent in the Eastern region.

Table 8.1: Respondents' Location

Respondents' location	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
West	53	47	47	42	36	45	136	45
Central	32	29	41	37	25	31	98	32
East	27	24	23	21	19	24	69	23
Total	112	100	111	100	80	100	303	100

*1 Private Investors. 2 Financial Analysts. 3 Institutional Investors

8.2.2 Education level and major degree:

In response to the second question regarding their last education qualification (see Table 8-2) and the subject which they majored in (see Table 8-3), most (86 percent) of the private investors held a bachelor's or postgraduate degree. With regard to the subject of their respondents' major in their last degree, the results show that 52 percent of the private investors majored in accounting or other subject related to business. Regarding the financial analysts, the findings suggest that 97% of them held a bachelor's or postgraduate degree. With regard to the subject of their major in the last degree, the findings showed that 86 percent of the financial analysts majored in accounting or another subject related to business. The findings reveal that 83_percent of the institutional investors held a bachelor's or postgraduate degree. With regard to their major subject in their last degree, the finding show that 65 percent of the analysts majored in accounting or in a subject related to business studies.

Based on the above-mentioned findings, we can draw the following conclusions about the level of education of the three groups involved in this study. First, with regard to the level of education, it would appear that the financial analysts group was the most highly educated group, followed by the private investors and then by the institutional investors. Second, the majority in all three groups majored in accounting or a major related to business studies. These results suggest that the respondents are different in nature and should be treated separately when discussing and analyzing the rest of the questionnaire.

Table 8.2: Respondents' Level of Education

Level of Education	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
Below Bachelor's	16	14	4	3	14	17	34	11
Bachelor's	73	65	82	74	56	70	211	69
Master's	18	16	22	20	10	13	50	17
Doctorate	5	5	3	3	0	0	8	3
Total	112	100	111	100	80	100	303	100

*1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

Table 8.3: Respondents' Major Degrees

Subject of Major degree	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
Accounting & Finance	26	23	69	62	17	21	112	37
Business Adm.	25	22	24	21	22	28	71	23
Marketing	8	7	3	3	13	16	24	8
Computing	7	6	8	7	5	6	20	7
Islamic edu.	15	14	2	2	14	18	31	10
Engineering	10	9	1	1	1	1	12	4
High school	14	13	3	3	5	6	22	7
Linguistic	7	6	1	1	3	4	11	4
Total	112	100	111	100	80	100	303	100

*1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

8.2.3 Respondents' age:

Table 8-4 present details of the respondents' age. The majority of private investors (55 percent) fall into the second age group and none of the respondents chose the option "over 60 years". Most of the financial analysts, too, were found in the second age group. Table 8-4 also reveals that 40 percent of the institutional investors falls into the second age group, none of them choosing the option "51-60 years". The findings suggest that 155 (51 percent) of the respondents fall into the second age group, which is the highest number among the respondents. The lowest numbers of respondents (2 percent) are found in last age group, for 60-year-olds and above

Table 8.4: Respondents' Age

Age	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
30 years or under	36	32	27	24	25	31	88	29
31 – 40 years	62	55	61	55	32	40	155	51
41 - 50 years	10	9	17	15	20	25	47	15
51 - 60 years	4	4	4	4	0	0	8	3
over 60 years	0	0	2	2	3	4	5	2
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

8.2.4 Respondents' investment activities:

In order to highlight further characteristics about the involvement of investors' groups (private and institutional investors) in investment activities, investors were asked to indicate their preferred sector for investment and whether they preferred local or foreign investment. The responses to these questions are reported in Tables (8-5) and (8-6). These tables reveal a number of findings. First, when the respondents were asked about the preferred sector for investment, they replied that the most popular sector (49 percent) for private investors was the industrial sector, followed by the cement sector, 26 percent, the banking and service sectors both totalling 10 percent and the agricultural sector at 5 percent the lowest. However, institutional investors placed most emphasis on the industrial sector (40 percent) and least on the agricultural

sector, 6 percent. Responses to the second question, whether they preferred they preferred local or foreign investment, are that more than half the private investors invest only in Saudi Market (56 percent) and that none of them invests only in the foreign market. 46 percent of the institutional investors mostly preferred to invest locally.

Finally, these findings show that the target group has considerable experience of the financial market and financial reporting. They are clearly an influential and important group and therefore it is highly relevant to ask them to express their views on Internet financial reporting.

Table 8.5: Sectors for Investment

Sectors for Investment	Respondents' groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
Banking	11	10	NA	NA	32	40	43	23
Industrial	55	49	NA	NA	30	38	85	44
Agricultural	6	5	NA	NA	5	6	11	6
Services	11	10	NA	NA	7	9	18	9
Cement	29	26	NA	NA	6	7	35	18
Total	112	100	NA	NA	80	100	192	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

Table 8.6: Respondents' Preference for Local or Foreign Investment

Local or Foreign investment	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
Only domestic companies	63	56	NA	NA	11	14	74	38
Mainly domestic companies	37	33	NA	NA	26	32	63	33
Equally domestic and foreign companies	5	5	NA	NA	29	36	34	18
Mainly foreign companies	7	6	NA	NA	14	18	21	11
Only foreign companies	0	0	NA	NA	0	0	0	0
Total	112	100	NA	NA	80	100	192	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

8.2.5 Internet experience:

The Internet background information from the respondents participating in the survey concerned: Internet experience, place of Internet access, Internet skills, Internet use per week, types of information sought, satisfaction with the Internet in Saudi Arabia. The responses to the Internet background questions are reported in Tables 8-7 and 8-9 to 8-13.

Although the age of the Internet in Saudi Arabia (see Chapter 2) only just over five years, most of the respondents (77 percent) have been using the Web for one or two years. It can be also seen from Table (8-7) that 73 percent of private investors have been using the Web for one or two years, with 78 percent for financial analysts and 80 for institutional investors. The result clearly shows that most target groups are fully experienced Internet users.

Table 8.7: Respondents' Internet Use

Internet use	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
Less than 6 months	18	16	8	7	9	11	35	11
6 months to less than 1 year	12	11	17	15	7	9	36	12
1 year to less than 2 years	42	37	37	34	26	32	105	35
over 2 years	40	36	49	44	38	48	127	42
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors

8.2.6 Place of Internet access:

The answers to this set of eight questions (see Table 8-8) indicate that most (75 percent) of private investors used the Internet from home. Twenty-one used the Internet at work and only 4 percent from a public place. The same table reveals that half the financial analysts accessed the Internet at work, 45 percent from home and only 5 percent from a public place. The results also indicate that 69 percent of institutional investors used the Internet from home, 25 percent at work and only 6 percent from a public place. These findings indicate that the majority of respondents (95 percent) access the Internet either from home or work, which mean they have easy access.

Table 8.8: Internet Access

Internet access	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
At home.	84	75	50	45	55	69	189	62
At work.	23	21	56	50	20	25	99	33
Public place (e.g. an Internet Café)	5	4	5	5	5	6	15	5
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

8.2.7 Respondents' Internet skills:

In respect of the respondents' Internet skills, 65 percent of private investors consider their skills good or very good and the figure is almost the same for financial analysts (67 %) and institutional investors (65 %). It is interesting to notice that none of the financial analysts considers his skills very poor.

Table 8.9: Respondents' Internet Skills

Internet skills	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
very poor	3	3	0	0	1	1	4	1
poor	4	3	3	3	6	8	13	4
fair	32	29	33	30	21	26	86	29
good	49	44	50	45	31	39	130	43
very good	24	21	25	22	21	26	70	23
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

8.2.8 Internet usage per week:

Question 10 studied the average weekly use of the web by the respondents (Table 8-10). Five ranges were made available for respondents so that they could choose which applied to their situations. Most respondents (71 percent) stated that they used the web on average more than 4 times a week. In respect private investors 77 percent of them stated that their weekly average use of the web is more than 4 times. The results also indicate that 70 percent of financial analysts stated that they used the web on average more than 4 times a week. The results for the institutional investors show that 64 percent of them use the web more than 4 times a week. These findings clearly indicate that the majority of the respondents (71% percent) are considered heavy users.

Table 8.10: Respondents' Internet Use

Internet used	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
less than once a week	2	2	3	3	1	1	6	2
once a week	1	1	6	5	7	9	14	5
2 to 3 times a week	23	20	24	22	21	26	68	22
4 to 5 times a week	50	45	32	29	24	30	106	35
over 5 times a week	36	32	46	41	27	34	109	36
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

8.2.9 Types of information sought:

The last question in this part collected data on the types of information which respondents were looking for on the web. Seven options were given to respondents from which they could choose the closes option. As presented in Table 8-11, thirty-four percent of respondents used the web to obtain business information.

Private investors were also attracted to the web as a source of business information (23 percent), entertainment (19 percent) and Islamic information (15 percent). The least popular type of information that private investors retrieved from the web is computer software (7 percent). Financial analysts also considered business information (40 percent) the most attractive information, while the least popular type of information obtained from the Web concerned computer software (3 percent). Institutional investors were also attracted to the web as a source of business information (40 percent). Among institutional investors, the least popular type of information to be retrieved from the web is Islamic information (6 percent). These results indicate that business information is the preferred information for the web users in the sample.

Table 8.11: Respondents' Target Types of Information

Types of information	Respondents' groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
Educational information	12	11	12	11	8	10	32	11
Business information	26	23	45	40	32	40	103	34
Computer software	8	7	4	3	6	8	18	6
Discussion and chat	12	11	13	12	13	16	38	12
Entertainment	21	19	12	11	11	14	44	14
News	16	14	12	11	5	6	33	11
Islamic information	17	15	13	12	5	6	35	12
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

8.2.10 Online financial sources and which parts of websites are most attractive:

This part consists of two questions; the first question in this part asked respondents to identify the most popular alternative online information sources for respondents. The second question asked respondents to specify which parts of a company's website interest them most (Tables 8-12 and 8-13).

Table 8-12 shows overall that the highest use of all the alternative online sources of financial information is Tadawul (50 percent) and their broker's or financial advisor's website (24 percent). The lowest use is made of the Investee's website (18 percent) and the SAMA website (8 percent). When the respondents were asked about what parts of a company's website interests them most, the findings indicate that 42 percent considered financial information was the most interesting part. The least interesting part was historical financial information (7 percent). This means simply that Web users in the sample trust online financial information and they are looking for current and future information more than for historical.

As shown in Tables 8-12 and 8-13, 52 percent of private investors considered Tadawul to be the best source for online financial information and 25 percent stated that financial information is the most interesting part of a company's website. The same percentage of financial analysts (52 percent) them considered Tadawul to be the best source and 55 percent stated that financial information is the most interesting part of a company's website to them. The same tables reveal that 42 percent of institutional investors considered Tadawul to be the highest source and 48 percent stated that financial information is the most interesting part of a company's website.

Table 8.12: Internet Financial Reporting (IFR) sources

(IFR) sources	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
SAMA (Saudi Arabian Monetary Agency) website.	6	6	5	5	15	19	26	8
Broker's or financial advisor's website.	24	21	29	26	19	24	72	24
Investee's website.	24	21	19	17	12	15	55	18
Tadawul	58	52	58	52	34	42	150	50
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

Table 8.13: Most Interesting Parts of a Company's Website

Most interesting parts of a company's website	Respondent groups						Total	
	1*		2*		3*			
	No	%	No	%	No	%	No	%
Company background	11	10	10	9	7	9	28	9
Product and service information	25	22	16	14	23	29	64	21
Financial information	28	25	60	55	39	48	127	42
Management report	18	16	10	9	1	1	29	10
Investors' information	19	17	8	7	7	9	34	11
Historical financial information	11	10	7	6	3	4	21	7
Total	112	100	111	100	80	100	303	100

1 Private Investors. 2 Financial Analysts. 3 Institutional Investors.

In summary, the data revealed that the majority in the target sample were private investors, located in the western region and highly educated. They are qualified in business, aged between 30 and 50, make most of their investments in the local market and preferably in the industrial sector. Moreover, the majority of the target group were fully experienced in the Internet, heavy Internet users and were searching for business information they considered Tadawul the most important source and financial information is the part of the website that most attracts them.

8.3. Explanatory analysis:

As mentioned in the research methodology chapter, a questionnaire survey was employed to explore the perceptions of the external users of the Internet and Internet financial reporting (IFR) in Saudi Arabia. The next sections report the analysis and results concerning the perceptions of respondents about various aspects of IFR in Saudi Arabia.

8.3.1. Users' attitudes to the Internet infrastructure in Saudi Arabia:

The objective of this section is to measure respondents' satisfaction with the Internet infrastructure in Saudi Arabia. To achieve this objective, selected groups were given nine statements and were requested to indicate their level of agreement with them, using a five-point scale, where 1 is completely dissatisfied and 5 completely satisfied (see the questionnaire, Appendix Nos.1, 2 and 3). Tables 8-14 to 8-15 present summaries of the responses of the different groups participating in the study. Table 8-14 shows the frequency, mean, median, standard deviation and coefficient of the variations.

As Table 8-14 shows, in general, respondents are dissatisfied with some aspects of the Internet infrastructure in Saudi Arabia. This was reflected by the mean scores, which registered almost less than 3 in most of the items. In addition, the median score was 3 or under 3 for most of the items. The whole sample rated their reasons for satisfaction in the following order:

1. Ease of subscribing to the Internet
2. Government control over the Internet
3. Availability of Internet service
4. Availability of Internet technical support
5. Internet subscription price
6. Security service
7. Internet cost per hour
8. Ability to download information
9. Internet speed

Respondents appear dissatisfied with Internet speed, speed of downloading and Internet cost per hour. This is a predictable result since the cost of the Internet in Saudi Arabia is considered high compared with that in neighbouring countries (see Chapter 2). In regard to downloading and its slowness, Waller (2006) mentioned that the majority of users (in Saudi Arabia in particular) still have 56K dial-up modems; thus web designers are obliged to keep data limited and to encourage users to browsing it. Also it is worth mentioning that TAM theory (Chapter 6) revealed that applications perceived by users to be easier to use than others are more likely to be accepted (Davis et al, 1989). Thus IFR use may be affected by the Internet infrastructure in Saudi Arabia.

Yet Table 8-14 shows that these respondents appear satisfied with the Internet subscription process and moderately satisfied with government control over the Internet (filtering). This is surprising, since, in the Kingdom of Saudi Arabia Internet users pay a volume-based subscription to access the Internet; their monthly subscription covers some free hours and on top of this they pay each time a certain amount for each extra hour's use (Internet service unit, 2004b).

There are significant differences in opinion between the selected groups, as reflected by the high chi-square score and significance level. The significant differences relate to Internet speed, availability of the Internet service and government control over the Internet. In relation to Internet speed, the opinions of the institutional investors are significantly different from those of the other two groups. A possible explanation for this difference might be the fact that institutional investors' Internet skills are higher than those of the other groups (see Table 8-9).

In summary, one of the main objectives of this study was to measure respondents' satisfaction with the Internet infrastructure in Saudi Arabia. The findings of this study reveal that the respondents were more consistent in their satisfaction about the ease of subscribing to the Internet in Saudi Arabia and government control over the Internet. The third item rated by respondents was the availability of Internet service around the clock. In addition, the observation from these findings shows consistency between the respondents in most items.

Table 8.14: Users' Satisfaction With the Internet

Items	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
			1	2	3							
Internet subscription price	303	2.8	2.71	2.72	3.01	2	2	1.26	1	5	2.608	.271
Ease of subscribing to the Internet	303	4.09	4.09	4.14	4.02	4	4	.94	1	5	1.321	.517
Internet cost per hour	303	2.15	1.98	2.37	2.06	2	2	1.03	1	5	5.422	.066
Internet speed	303	2.03	2.03	2.23	1.75	2	2	.95	1	5	16.401	.000*
Availability of Internet service	303	3.10	3.06	3.28	2.89	3	4	.95	1	5	9.069	.011*
Availability of Internet technical support	303	2.88	2.88	2.84	2.96	3	3	.98	1	5	1.098	.577
Security service	303	2.67	2.62	2.66	2.76	3	3	.99	1	5	.983	.612
Ability to download information	303	2.13	2.06	2.24	2.07	2	2	.96	1	5	1.501	.472
Government control over Internet	303	3.35	3.61	3.30	3.05	4	4	1.14	1	5	8.975	.011*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors.
Median and Mean: 5=completely satisfied; 1= completely unsatisfied

Table 8.15: Ranking by Mean Value of Users' Satisfaction With the Internet

Items	Private investors	Financial analysts	Institutional investors	All groups
Ease of subscribing to the Internet	1	1	1	1
Government control over Internet	2	2	2	2
Availability of Internet service	3	3	5	3
Availability of Internet technical support	4	4	4	4
Internet subscription price	5	5	3	5
Security service	6	6	6	6
Internet cost per hour	9	7	8	7
Ability to download information	7	8	7	8
Internet speed	8	9	9	9

8.3.2 Users' information sources about companies in Saudi Arabia:

One of the objectives of this research is to measure the importance of different corporate information sources to different parties who are, or are expected to be, interested in public limited companies in Saudi Arabia. Specifically, the research is concerned with the standing of IFR among other sources of corporate information (most previous studies examined the importance of hard copy reports, among other sources). To address this task, the respondents were asked to rate the importance of nine possible sources of information about companies (see questionnaire, Appendix Nos. 1, 2 and 3). As indicated in the previous chapter, the selected information sources are:

- Hard copy annual reports,
- Hard copy interim reports,
- Specialist advice,
- Direct contact with the company,
- Newspapers and magazines,
- Company websites,
- Specialised publications,
- Friends' advice and
- Market rumours and tips.

In order to determine the respondents' attitudes towards the use of different information sources in Saudi Arabia, they were asked to rate the importance of the individual information sources using a Likert-type scale where the responses ranged from 1 – “not important at all” to 5 – “very important”.

Since the respondents may perceive some information sources to be important in an absolute sense, they were asked to further clarify their perception by ranking the source in terms of their priority. Hence, the users had the opportunity to state their perception of the importance of the information sources in relative terms, i.e., in relation to other sources. The respondents were asked to rank all the information sources in terms of their importance to their decision making needs, by assigning number 1 to the highest and most important source and number 9 to the least important. Overall, the study reveals that there were significant differences between respondents' attitudes to the use

of different sources of financial information in Saudi Arabia.

The responses to this question are summarized in Tables 8-16, 8-17 and Table 8-18. As can be seen clearly from the tables, the respondents rank the hard copy annual report as the primary source of information about firms in Saudi Arabia, followed by the hard copy interim report. This is reflected by the mean and median scores for each source and supported by standard deviation and the coefficient of variation. The respondents are more consistent in their rating of the importance of the annual report than of other sources. This is evidenced by the low standard deviation shown. This result clearly shows that respondents rely heavily on the first two sources of information mentioned above (hard copy sources) in their investment activities, rather than on information obtained from a third party. The result of this study is consistent with previous studies (see Table 8-18). The study also revealed that there were significant differences between respondents' attitudes to the use of hard copy annual reports and hard copy interim reports as financial information sources. The Kruskal-Wallis Test showed that financial analysts and institutional investors attached higher importance to obtaining information from these two sources than other private investors did. This result was expected, since financial analysts and institutional investors have more financial education and experience allowed them to read and analyse financial reports.

Examining Tables 8-16 to 8-18 again reveals that the third important source of information was specialist advice, as reflected by the mean and median scores for each source and supported by standard deviation and the coefficient of variation. This specialist advice is mainly from financial advisors. However, it would appear that the selected groups perceived this source differently. The result shows that private investors attached lower importance to obtaining information from specialist advice than other investors did. This result was expected, since there are only limited resources available for private investors to obtain professional advice from professional people. Overall, the result of this study, smaller than in Al-Razeen and Karbhari (2004), ranked it at 4.

Direct contact with the company management was found by Al-Razeen and Karbhari (2004) to be the third most popular source and by Almahamod (2000) to be the least popular. In the present research, however, direct contact with the company management was ranked as fourth, almost lower than in the study of Al-Razeen and Karbhari (2004). With regard to whether there was any significant differences between the groups of respondents, the Kruskal-Wallis Test was performed and the results suggest that there were significant differences between the respondents' opinions. Financial analysts and institutional investors attached higher importance to obtaining information from direct contact with the company management than other private investors did. This result was expected, since professional investors have more financial education and their investments are very high, allowing them to make contact with companies.

Financial information obtained from newspapers and magazines is the fifth most important source of information to the Saudi users. This result is similar to the finding of Al-Razeen and Karbhari (2004) but different from that of Almahamod (2000) where it was given third place. The Kruskal-Wallis Test suggests that there are highly significant differences between respondents regarding newspapers and magazines as sources of financial information. It can be seen from these tables that private investors give financial information obtained from newspapers and magazines higher importance than other group did. This can be explained by the background of the respondents. Moreover, private investors have limited alternative channels for obtaining financial information.

It also can be seen that company websites surprisingly ranked in the sixth position. The respondents here are more consistent in their opinion. This is evidenced by the lowest standard deviation shown by the whole sample. Comparing this result with previous results, Taylor (1999) found that private investors ranked websites 13th out of 26 possible sources of information which might be useful for investment decisions. Barker's (1999) results for institutional investors in the UK were similar. However, the Kruskal-Wallis test suggests that there are significant differences between respondents regarding the source of information mentioned above. As is clear from the Tables (8-16 to 8-18)

private investors attached higher importance to obtaining information from company websites than the other groups did. These differences may be due to the fact that financial analysts and institutional investors are most likely to be professionals and their daily work requires them to be in contact with companies, so they usually have a good relationship with companies which allows them to obtain updated information. Nevertheless, Spaul (1997) claimed that IFR could reduce the gap between sophisticated users and private investors.

This result can be explained by the fact that an Internet service has been available to the public only since 1999 (see Chapter 2). In addition, most of the company websites are newly established and some have not published any financial information on their website or have not often updated it. Consequently, most companies do not consider the procedure of dissemination on the Web as seriously as they do hard copy (see Chapter 4). Moreover, some users are concerned about whether online reporting is a valid source and whether it is an accurate reflection of the facts (see Chapter 4 for more details); furthermore, the Internet infrastructure in Saudi Arabia affects IFR usage (for expectations from theoretical forecasts, see Chapter 6). To the best of the researcher's knowledge, no study has so far examined the importance of IFR among other sources of financial information in Saudi Arabia. Thus this is one of the contributions of this study to the knowledge in this field.

Specialised publications were ranked as the seventh most important source of information. These publications are mainly published by the Chamber of Commerce and Industry, the Commercial Bank, Tadawul and some financial advisors. However, it would appear that the selected groups perceived this source differently. The result shows that private investors are aware of such publications and there are not many alternative sources for them. Overall, the results of this study are lower than those of Al-Razeen and Karbhari (2004) and Almahamod (2000). The Kruskal-Wallis Test reveals that there are highly significant differences between respondents regarding the specialised publications as sources of information. It can be seen from the tables that private investors considered financial information obtained from specialised

publications to have higher importance than the other groups did. This can be explained as denoting that private investors have limited alternative channels for obtaining financial information.

With regard to friends' advice as an important source of information, the results show that the respondents to this survey ranked this source of information in general in eighth position. Friends' advice was given a conflicting result in the early studies of Saudi Arabia. Regarding friends' advice, the result found here is consistent with those of Al-Razeen and Karbhari (2004) and Almahamod (2000). However, Abdelsalam (1990) found friends' advice to be in fifth position as sources for financial information. The reason behind this discrepancy seems to be that Saudi investors change over time in their experience and educational background. The result also shows that there are significant differences between the selected groups. The private investors attached higher importance to obtaining information and advice from friends' than the other groups did. This is expected, as members of this group are very likely to place great confidence in the advice of relatives and friends, while the other groups rely on their professionalism.

Market rumours ranked in the last position among the nine different sources of information evaluated by the respondent groups. This result was expected, since market rumours are very unlikely to affect investors' decisions in a formal or organized stock market. This result is consistent with earlier findings in Saudi Arabia by Abdelsalam (1990), Ba-Owaidan (1994), Al-mubarak (1997), Almahamod (2001) and Al-Razeen and Karbhari (2004), who examined the perception of investors about the most important sources of information. The Kruskal-Wallis Test revealed that there are highly significant differences between respondents regarding all sources except market rumours and tips as sources of information. It can be seen from these tables that the private investors are significantly different from the other two groups. A possible explanation for this might be that private investors are most likely to be unsophisticated.

In summary, this section has described the importance of possible corporate information sources to various interested parties in Saudi Arabia. The hard copy corporate annual report is of the utmost use to the financial analysts and institutional investors. Newspapers and magazines, in contrast are the most important to the private investors. This clearly shows that there are significant differences between the groups. The hard copy interim report was selected as the second most important source by the whole sample. However, private investors again attached more importance to company websites than most people in the other groups did. Finally, specialist advice was rated third by the whole sample. However, private investors have different views.

Table 8.16: Users' Rating of the Importance of Different Information Sources

Items	Freq	Mean	Rank	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
				1	2	3							
Hard copy annual reports	303	4.32	1	3.94	4.63	4.41	5.00	5	.948	1	5	24.311	.000*
Hard copy interim reports	303	4.17	2	3.82	4.46	4.28	4.00	4	.845	1	5	34.531	.000*
Specialist advice (e.g., from a financial advisor)	303	3.84	3	3.42	4.15	4.01	4.00	4	.945	1	5	31.721	.000*
Direct contact with the company (e.g., by telephone calls, meeting with company managers)	303	3.80	4	3.26	4.06	4.18	4.00	4	1.135	1	5	43.987	.000*
Newspapers and magazines	303	3.67	5	4.09	3.54	3.28	4.00	4	.957	1	5	37.276	.000*
Company web sites	303	3.85	6	4.24	3.80	3.38	4.00	4	.818	1	5	52.367	.000*
Specialised publications (e.g., a chamber report)	303	3.05	7	3.46	2.96	2.60	3.00	4	1.230	1	5	24.503	.000*
Friends' advice	303	3.01	8	3.35	2.85	2.78	3.00	3	1.113	1	5	16.180	.000*
Market rumours and tips	303	2.68	9	2.79	2.49	2.78	3.00	2	1.297	1	5	4.181	.124

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors
Median and Mean: 5= Very important; 1= Not important at all

Table 8.17: Users' Ranking of the Importance of Different Information Sources

Items	Freq	Mean	Rank	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
				1	2	3							
Hard copy annual reports	303	2.49	1	3.64	1.74	1.90	1.00	1	2.182	1	9	35.481	.000*
Hard copy interim reports	303	3.43	2	4.30	2.85	3.01	2.00	2	1.962	1	9	23.666	.000*
Specialist advice (e.g., from a financial advisor)	303	4.50	3	5.52	3.79	4.04	4.00	3	2.095	1	9	39.388	.000*
Direct contact with the company (e.g., by telephone calls, meeting with company managers)	303	4.51	4	6.13	3.77	3.25	4.00	3	2.573	1	9	74.143	.000*
Newspapers and magazines	303	4.71	5	3.37	5.45	5.55	5.00	6	2.085	1	9	65.564	.000*
Company web sites	303	5.02	6	3.46	6.03	5.80	5.00	5	2.018	1	9	103.594	.000*
Specialised publications (e.g., a chamber report)	303	6.38	7	5.54	6.74	7.05	7.00	7	1.925	2	9	31.284	.000*
Friends' advice	303	6.80	8	6.06	7.35	7.08	8.00	8	1.922	1	9	29.307	.000*
Market rumours and tips	303	7.50	9	6.99	7.98	7.53	9.00	9	2.119	1	9	13.505	.001*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors

Table 8.18: A comparison of the Results of this Study with Previous Studies

Items	Current study 2008	Al-Razeen and Karbhari 2004	Almahmod 2001	Ba-Owaidan 1994	Abdelsalam 1990
Hard copy annual reports	1	1	1	1	1
Hard copy interim reports	2	2	2	NA	NA
Specialist advice	3	4	5	NA	NA
Direct contact with the company	4	3	10	NA	NA
Newspapers and magazines	5	5	3	4	2
Company web sites	6	NA	NA	NA	NA
Specialised publications	7	6	7	NA	NA
Friends' advice	8	7	8	NA	5
Market rumours and tips	9	8	6	NA	7

8.3.3. Respondents' perception of the advantages of Internet financial reporting:

The previous section has shown that different interested parties in Saudi Arabia perceived some sources of information to be more useful than some others. However, the use and importance of a source of corporate information could be improved if it brings some advantages which users are perceived to be important. Prior studies (see chapter 4) revealed that the disclosure of financial information on company websites benefits the users in several ways. For example, it provides inexpensive information, makes the decision making process for investments easier and faster and increase the timeliness and efficiency of obtaining financial information (Rowbottom et al, 2005; Khadaroo, 2005; Debreceeny and Rahman, 2005; Jones and Xiao, 2004; Trabelsi et al, 2004; Fisher et al, 2004; Gowthorpe, 2004; Benston, Bromwich et al, 2003; Geerlings et al, 2003; Adams and Frost, 2003; Xiao et al, 2002a; Xiao et al, 2002b; Carey and Parker, 2002; Debreceeny et al, 2002; Ettredge et al, 2002; ACCA, 2002; Ettredge et al, 2001; Hodge, 2001; Xiao, 2000; FASB, 2000; Fisher et al, 2000; Jones, 2000; Growther, 2000; Williams et al, 1999; IASC, 1999; Westarp et al, 1999; Gerald, 1999; Trites et al, 1999; Hassan, 1999; Louwers et al, 1998; Lymer, 1997; Lymer and Tallberg, 1997; Green and Spaul, 1997; Trites and Sheehy, 1997; Deller et al, 1997; Louwers et al, 1996; and McCafferty, 1995). However, to the best of the researcher's knowledge, no study has examined the level of agreement among the different users' groups regarding the possible advantages of Internet financial reporting. Thus this is one of the contributions made by the present study to the knowledge in this field.

The following sections explore how the different interested parties in Saudi Arabia identify the main possible advantages of Internet reporting, from the users' perspective. The participants to the present study were given a list of Internet financial reporting advantages (12 items) and asked to state to what extent they agreed with these statements. To the end, the respondents to the questionnaire were asked to indicate their level of agreement with the twelve items by using a five-point scale, where 5 indicated "strongly agree" and 1

indicated “strongly disagree” (see Appendix Nos. 1, 2 and 3).

Tables 8-19 and 8-20 show the frequency, mean, median, standard deviation and coefficient of the variations. The mean values reported in Table 8-19 were used to produce Table 8-20. Observations from Table 8-19 show that the users' groups, considered together, agreed to some extent with most of those statements in the following order: 'The Internet is considered '

1. an easy way of accessing financial information,
2. a cheaper means of gathering information,
3. to provide users with alternative source of financial information,
4. an easy method to download information for further analysis,
5. an easy channel to find information about a foreign company,
6. to enable users of IFR to screen a large number of companies,
7. to make it easy to find information about a local company,
8. to extend the scope of financial information disclosure,
9. to make financial information more attractive,
10. to narrow the information gap between sophisticated users and others,
11. to provide users with up-to-date information,
12. to reduce the demand for meetings with company management.

The responses to this question are summarized in Tables 8-19 and Table 8-20. As can be seen clearly from them, respondents considered that the Internet provides users with easy access to financial information and that this is the greatest benefit of IFR, from their perspective. This is reflected by the mean and median scores for each source and supported by standard deviation and the coefficient of variation. The Kruskal-Wallis test suggests that there are significant differences between respondents regarding the benefit of Internet as provides users with easy access to financial information. It can be seen from Table 8-19 that institutional investors are significantly different from the members of the other two groups. This result was expected, since their very high investments allow them to make direct contact with companies. This result is thus not surprising, since previous studies revealed that Internet reporting not only increases the speed of disclosure, but also makes reporting more easily reached by all stakeholders in the manner and at the time desired (Xiao et al, 2002a; Xiao et al, 2002b; FASB, 2000; louwers et al, 1998; Lymer and Tallberg, 1997, Green and Spaul, 1997; and Elliot, 1992).

The benefits of IFR as a cheaper means of gathering information rated second position, from the users' perspective. The Kruskal-Wallis test suggests that there are significant differences between respondents regarding the benefit of IFR as a cheaper means of gathering information. As the tables clarify, (8-19 to 8-20) institutional investors again attached lower importance to this benefit than the other group did. These differences may be due to the fact that institutional investors are most likely to be professionals whose daily work requires them to be in contact with companies, so they usually have a good relationship with companies which allows them to obtain information at less cost than other groups incur. Nevertheless, Rowbottom et al (2005); Gowthorpe (2004); Fisher et al (2004); Xiao et al (2002a); Xiao et al (2002b); Ettredge et al (2001); FASB, (2000); Hassan (1999); Trites and Sheehy (1997) and Lymer (1997) claimed that the use of the Internet for disseminating financial reporting has significantly reduced the number of phone calls, faxes and mailing costs requesting standard information, such as annual reports.

The benefit with IFR of providing users with alternative sources of financial information took third position. The respondents are more consistent in this opinion. This is evidenced by the lowest standard deviation shown by the whole sample. Moreover, the Kruskal-Wallis test shows that there are no significant differences between respondents. Studies by Lymer (1997), Hussey et al (1998), Molero et al (1999), Deller et al (1999), Lymer (1999), Hassan (1999), Abu Al-Azm (2000), Joshi and Al-Bastaki (2000), Xiao et al (2004), Abdelsalam et al (2004), Amir Allam (2006), Abdelsalam et al (2006), and Abdelsalam et al (2007) found that most of the companies around the world used the Internet as an alternative channel to disclose financial information.

A unique advantage of Internet technology over hard copy reporting is its download feature (Rowbottom et al, 2005; Fisher et al, 2004; Gowthorpe, 2004; Adams and Frost, 2003; Xiao et al, 2002b). Moreover, Carey and Parker (2002) claimed that web technologies allow users to analyze companies more easily and in more depth than was previously possible. For example, the ability to explore and analyze the data directly online, make calculations involving them directly online, ability to view the data in different tables and charts, and the

ability to send the data by e-mail and download them. The download benefit rated fourth position. The Kruskal-Wallis Test revealed that there are highly significant differences between respondents regarding download facilities. It can be seen from these tables that private investors are significantly different from the members of the other two groups. A possible explanation for this might be that private investors are the most likely to be unsophisticated users.

Gowthorpe and Amat (1999) claimed that one of the main objectives for the most companies in developing a website is to encourage investors, either domestic or foreign, to read certain information. A principal attraction of the Internet is that it is not restricted by geographic boundaries. It allows the global distribution of corporate information. In this regard, respondents considered the Internet as an easy channel on which to find information about a foreign company; this was the fifth greatest benefit of IFR. Moreover, the respondents are consistent in their opinion. This is evidenced by the low standard deviation shown in Table 9-19. These findings are unsurprising, since the English language is the preferred language for most foreign companies. However, in Chapter 2, it was mentioned that language problems were caused by the preference for Arabic, or by unfamiliarity with other languages, which reduces the maximum benefit to be gained from the Internet, especially with regard to websites offered in other languages (IDN Software Developer Consortium, 2004).

On the downside, Table 8-20 shows that respondents (taking the whole sample) considered the following benefits as the statements least agreed with:

1. Extends the scope of financial information disclosure,
2. Makes financial information more attractive,
3. Narrows the information gap between sophisticated users and others,
4. Provides users with up-to-date information and
5. Reduces the demand for meetings with company management

With regard to whether there have been any significant differences of opinion between respondents' groups in their reception of these possible advantages of Internet financial reporting (IFR), the results indicate significant differences in

opinion in all cases (except no. 2, 'makes financial information more attractive'), as represented by the high chi-square score (see Table 8-19). Overall, private investors' opinions are different from those of other professional groups. This result is reflected in the high chi-square and mean scores for each group. This may be due to the respondents' education and experience/background.

In summary, the results revealed that the Saudi users participating in this study, in general, agreed to some extent with most of the advantage of IFR. This was clearly reflected by the mean scores, which registered slightly above or around 3. In addition, the median score was above 3 for all items. The Kruskal-Wallis test suggests that there are significant differences between the groups of respondents in most cases.

Table 8.19: Users' Perception of the Advantages of IFR

Items	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
			1	2	3							
IFR provides users with another source of information	303	4.15	4.10	4.20	4.15	4	4	.64	1	5	1.298	.523
The Internet provides users with easy access to financial information	303	4.26	4.35	4.31	4.07	4	4	.82	1	5	6.588	.037*
The Internet is a cheaper means of gathering information	303	4.25	4.35	4.32	4.01	4	5	.89	1	5	7.746	.021*
IFR provides users with up-to-date information	303	3.26	3.02	3.15	3.74	3	4	1.17	1	5	18.736	.00*
IFR makes financial information more attractive	303	3.43	3.43	3.31	3.60	4	4	.92	1	5	3.108	.211
IFR extends the scope of financial information disclosure	303	3.46	3.28	3.54	3.60	4	4	.90	1	5	7.505	.023*
IFR is easy to download for further analysis	303	4.10	3.82	4.38	4.10	4	4	.88	1	5	21.421	.00*
IFR narrows the information gap between sophisticated users and others	303	3.29	2.98	3.40	3.57	3	4	.95	1	5	21.536	.00*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors
Median and Mean: 5= Strongly Agree; 1= Strongly Disagree.

Table: 8.19, Continued

Items	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
			1	2	3							
IFR enables users to screen a large number of companies	303	3.94	3.87	3.98	3.99	4	4	.77	1	5	1.608	.447
IFR makes it easy to find information about a local company	303	3.52	3.47	3.35	3.83	4	4	.94	1	5	12.459	.002*
It is easy to find information about a foreign company with IFR	303	3.97	4.06	3.95	3.86	4	4	.85	1	5	1.492	.474
IFR reduces the demand for meetings with company management	303	2.87	2.81	2.68	3.23	3	3	.96	1	5	18.436	.00*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors
Median and Mean: 5= Strongly Agree; 1= Strongly Disagree.

Table 8.20: Ranking by Mean Value of the Users' Perceptions of the Advantages of IFR

Items	Private investors	Financial analysts	Institutional investors	All group
The Internet provides users with easy access to financial information	1	2	3	1
The Internet is a cheaper means of gathering information	1	2	4	2
IFR provides users with another source of information	3	4	1	3
IFR is easy to download for further analysis	6	1	2	4
easy to find information about a foreign company	4	6	6	5
IFR enables users to screen a large number of companies	5	5	5	6
IFR makes it easy to find information about a local company	7	9	7	7
IFR extends the scope of financial information disclosure	9	7	9	8
IFR makes financial information more attractive	8	10	9	9
IFR narrows the information gap between sophisticated users and a non	11	8	11	10
IFR provides users with up-to-date information	10	11	8	11
IFR reduces the demand for meetings with company management	12	12	12	12

8.3.4 Respondents' perceptions of the disadvantages of Internet financial reporting:

As noted in the previous chapter, one of the objectives of the present study is to identify the main disadvantages of Internet financial reporting, from the users' perspective. Respondents from all the groups involved in this study were given eleven statements regarding the disadvantages of Internet financial reporting and were asked to indicate their level of agreement with them, using a five-point scale, where 5 represented "strongly agree" and 1 represented "strongly disagree" (see Appendix Nos. 1, 2 and 3). Previous studies (see chapter 4) revealed that users of online reporting are concerned as to whether online reporting issues from valid sources, whether it is an accurate reflection of the facts and is more subject to change (Khadaroo, 2005; Jones and Xiao, 2004; Fisher et al, 2004; Adams and Frost, 2003; Bureau , 2003; Debrency et al, 2002; Xiao et al, 2002; Hodge, 2001; Carey and Parker, 2000; Xiao, 2000; Trites et al, 1999; Hill, 1999; Baldwin and Williams, 1999; Bury, 1999; Aoun, 1998; and Upton, 1998; Debrency et al, 1998; Hussey et al, 1998; and Flynn and Gowthorpe, 1997). However, to the best of the researcher's knowledge, no study so far has examined the level of agreement of the different users' groups regarding the possible disadvantages of Internet financial reporting. Thus, this is one of the contributions of this study to the knowledge in this field. The following paragraphs will describe the responses of the different users' groups to this topic.

Tables 8-21 to 8-22 show the frequency, mean, median, standard deviation and coefficient of variations. The mean values reported in Table 8-21 were used to produce Table 8-22. Observations from Table 8-22 show that the users' groups agreed that the following statements (in the following order) are the greatest disadvantages of Internet financial reporting, from the users' perspective:

1. It is too difficult to distinguish between audited and unaudited items,
2. On IFR it is difficult to distinguish between mandatory and non-mandatory areas,
3. IFR is not as complete as hard copy financial reports,
4. Hyperlinks make it difficult to know the boundaries of IFR,
5. IFR is largely outdated and irrelevant,

6. IFR makes it difficult to compare between companies,
7. IFR gives a misleading representation,
8. IFR is more subject to change and forgery than hard copy reports,
9. IFR is more likely to be corrupted by third parties,
10. IFR increases information overload and
11. IFR is too complex.

First, the majority of Saudi users agreed that Internet financial reporting makes it too difficult to distinguish between audited and unaudited items. In fact it was of the greatest concern to financial analysts and institutional investors and then to the private investors. The pattern of users' rating of this item may indicate the level of sophistication of the different users' groups. Abdelsalam et al (2006), Khadaroo, (2005), Fisher et al (2004), Pike and Lanis (2003), Hodge (2001), and Trites et al (1999) noted that firms mixed auditing information with unaudited information on their websites. Hodge, (2001) specifically investigated whether hyperlinking leads investors to misclassify unaudited information as audited. The results revealed that participants misclassify unaudited information as audited and vice versa. Pike and Lanis (2003) conducted a similar study to Hodge's (2001) and reported a similar result. However, Chapter 5 above, on the basis of previous studies suggests a number of ways to distinguish between audited and unaudited information, such as labelling, borders, watermarks, background colour or intermediate pages when entering and leaving audited sections of the website, and using a special file format for audited information, such as Acrobat PDF, or a digital signature to distinguish audited from unaudited information

Second, Saudi users revealed that Internet reporting makes it too difficult for them to distinguish between mandatory and non-mandatory reporting. There seems to be a high level of consensus between financial analysts and institutional investors on this item, but private investors in this study assigned the difficulty of distinguishing between mandatory and non-mandatory reporting to a lower level of agreement (rated as seventh). A possible explanation for this may be that private investors are most likely to be unsophisticated users. In previous studies, Debrency and Gray (1996) raised the question of the authenticity and credibility of financial information disclosed on the Net. This is a

matter of concern because to date there has been little or no guidance on the use of the Net to disclose corporate financial information. Koreto (1997) also said that guidance is necessary to resolve the issues of security and demarcation between statutory financial statements and other information published online. There are already problems of non-standardised information, of the amount of data supplied and of presentation.

Third, the concern that Internet financial reporting (IFR) is not as complete as hard copy financial reporting was rated third by the whole sample. These results are documented in the mean and median and supported by the standard deviation and coefficient variation. Moreover, the results show no consensus among groups of users in their level of agreement. It was rated as third for financial analysts, fifth for private investors and seventh for institutional investors. This concern was also discussed by previous studies (Jones and Xiao, 2004; Stevens and Ashbaugh, 1999; Westarp et al, 1999). They raise the question of how investors can be sure that the digital version of an annual report and the auditors' reports found on the web are identical to the hard copy report and that the auditor's report and/or opinion refers to the sites currently accessed by users.

Fourth, the issue of respondents' believing that Internet financial reporting makes it complicated for users to know where the boundaries of the information lie, in fact was of less concern to financial analysts than to the two other groups. It can be seen from Table 8-21 that institutional investors and private investors are significantly different in this respect from financial analysts and further research in this area may reveal the reasons for this. The problem has been discussed by several past studies (e.g. Trites et al, 1999; Hodge, 2001; Khadaroo, 2005; Fisher et al, 2004). Trites et al (1999), for example, made some recommendations for dealing with the boundaries problem (see Chapter 4 above for more details).

Fifth, the view that IFR is largely outdated and irrelevant was put into fifth position by the sample as a whole. The Kruskal-Wallis Test revealed that there are highly significant differences between respondents regarding the updating

and relevance of IFR. It can be seen from these tables that institutional investors are significantly different in this respect from the two other groups. This problem has been discussed by several past studies. Baker (2000) and FASB (2000), for example, mentioned that most companies do not regularly maintain online information. Thus, online reporting can easily be outdated and irrelevant.

On the downside, Table 8-21 shows that respondents (as a whole sample) agreed least with the following disadvantages:

1. IFR gives misleading representation,
2. IFR is more subject to change and forgery than hard copy reports,
3. IFR is more likely to be corrupted by third parties,
4. IFR increases information overload and
5. IFR is too complex.

With regard to whether there were any significant differences of opinion between respondents' groups in their estimation of these possible disadvantages, the results indicate significant differences of opinion in all cases (except no.1, 'IFR gives misleading representation') as represented by the high chi-square score (see Table 8-20).

In summary, this section has described the different users groups' views on the disadvantages of Internet financial reporting in general. As a rule, the greatest concerns for the sample were that it was too difficult to distinguish between audited and unaudited items, to distinguish between mandatory and non-mandatory areas, to be sure of gaining as complete a report as a hard copy would be, to know the boundaries of IFR and to be sure that IFR was up to date and relevant. In contrast, the different user groups were not highly concerned regarding the corruption of IFR by third parties, information overload and the complexity of IFR. Moreover, the result of statistical tests of differences within and between the users' groups regarding the disadvantages of Internet financial reporting (by the Kruskal-Wallis Test) suggests that there are significant differences between groups of respondents in most cases.

Table 8.21: Users' Perceptions of the Disadvantages of IFR

Items	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
			1	2	3							
IFR is too complex	303	2.42	2.54	2.21	2.56	2	2	.90	1	5	10.782	.005*
IFR increases information overload	303	2.53	2.55	2.36	2.73	2	2	.91	1	5	7.323	.026*
Hyperlinks make it difficult to know the boundaries of IFR	303	3.12	3.28	2.82	3.30	3	4	.93	1	5	18.591	.00*
IFR gives misleading representation	303	2.93	2.98	2.84	3.00	3	2	.97	1	5	1.831	.400
IFR is largely outdated and irrelevant	303	3.07	3.20	3.07	2.87	3	3	.88	1	5	7.048	.029*
IFR is not as complete as hard copy financial reports	303	3.16	3.26	3.28	2.84	3	4	.94	1	5	13.566	.001*
IFR makes it difficult to compare between companies	303	3.04	3.06	3.17	2.83	3	2	.99	1	5	5.414	.067
It is too difficult to distinguish between audited and unaudited	303	3.53	3.34	3.69	3.58	4	4	.98	1	5	7.361	.025*
IFR makes it difficult to distinguish between mandatory and non-mandatory	303	3.40	3.13	3.64	3.44	3	4	.93	1	5	20.269	.00*
IFR is subject to change and forgery than hard copy reports	303	2.91	3.38	3.10	2.00	2	2	1.13	1	5	82.224	.00*
IFR is more likely to be corrupted by third parties	303	2.87	3.38	2.28	2.96	3	2	.82	1	5	99.852	.00*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors
Median and Mean: 5= Strongly Agree; 1= Strongly Disagree.

Table 8.22: Ranking the Disadvantages of IFR

Items	Private investors	Financial analysts	Institutional investors	All groups
It is too difficult to distinguish between audited and unaudited	3	1	1	1
IFR makes it difficult to distinguish between mandatory and non-mandatory	7	2	2	2
IFR is not as complete as hard copy financial reports	5	3	7	3
Hyperlinks make it difficult to know the boundaries of IFR	4	8	3	4
IFR is largely outdated and irrelevant	6	6	6	5
IFR makes it difficult to compare between companies	8	4	8	6
IFR gives misleading representation	9	7	4	7
IFR is subject to change and forgery than hard copy reports	1	5	11	8
IFR is more likely to be corrupted by third parties	1	10	5	9
IFR increases information overload	10	9	9	10
IFR is too complex	11	11	10	11

8.3.5 Respondents' perception of the quality of IFR provided by Saudi public companies:

Another objective of the present study is to measure the level of agreement between respondents regarding the quality of Internet Financial reporting (IFR). In order to achieve this objective, the respondents to the questionnaire were asked to indicate their level of agreement about the criteria of quality of Internet financial reporting. Five-point scales were used to identify the level of agreement, where 5 means "Strongly agree" and 1 means "Strongly disagree" (see Appendix Nos. 1, 2 and 3).

Observations from Table 8-24 show that the users' groups agreed that the following statements (in the following order):

1. Saudi public companies' IFR is easy to access,
2. Saudi public companies' IFR is understandable,
3. Saudi public companies' IFR is relevant,
4. Saudi public companies' IFR is comparable (between companies),
5. Saudi public companies' IFR is reliable,
6. The design of Saudi public companies' IFR satisfies investors,
7. Saudi public companies' IFR is consistent,
8. Transmission speed of Saudi public companies' IFR is acceptable,
9. Download speed of Saudi public companies' IFR is acceptable and
10. Saudi public companies respond to Email enquires within an acceptable time.

Tables 8-23 to 8-24 reveal that the respondents' groups, in general, seem dissatisfied with the quality of Internet financial reporting provided by Saudi public companies. This is reflected by the mean and median scores, which are around or less than 3 in most of the items. This result is not surprising, since next Chapter (Chapter 9) found that, on average, Saudi public companies scored low in terms of disclosing information online (33% on general content, 21% on credibility and 31% on usability). Moreover, Chapter 9 reported that only 45% have a financial information section of some description under the title 'Financial Information' or another equivalent name. With regard to whether there have been any significant differences of opinion between the respondents' groups in their perception regarding the quality of Internet financial reporting, the results indicate significant differences in opinion in most cases, as

represented by a high chi-square score. The following sections will discuss some of these findings in more detail.

First, respondents' groups were asked to indicate their level of agreement about the accessibility of IFR provided by Saudi public companies. Table 8-23 shows that respondents seem satisfied with the accessibility of IFR. This is reflected by the mean and median scores, which are almost around 4. It can be seen from Table 8-23 that financial analysts and private investors are significantly different in this respect from institutional investors and further research in this area may reveal the reasons for this. Bell and Tang (1999) found a similar result in their study. In general, they found that the websites rated highly (above average) in term of ease of access.

Second, in terms of IFR's being understandable, Nielsen (2001) mentioned that, for online corporate information to be credible, it should make it easier for investors to understand the business, its strategy and objectives. In 2002, Carey and Parker claimed that real transparency is not always about the quantity of information, but about the usefulness of the data for users and its understandability. In this regard, Table 8-23 shows that the users' groups almost all agree that Saudi public companies' IFR is understandable. This is evidenced by the mean and median of agreement with the proposition that the IFR they meet is understandable, which are above 3.5. Moreover, the respondents' groups are more consistent also in their agreement with this as a criterion of quality in Internet financial reporting.

Third, in terms of reliability and the relevance of IFR, Jones (2002) reported that online financial reporting is credible if disclosure is complete, verifiable, familiar to users, easy for users to find and interact with and easy to use. Primer (2003) defines credibility as providing transparent, timely, full and fair disclosure. Jones (2002) claimed that partial information could lead to incorrect decisions. FASB (2000) noted that information on the web can be outdated and irrelevant. With increased promptness, there is the possibility of reduced reliability (Hussey et al, 1998; and Flynn and Gowthorpe, 1997). Fisher et al (2004) mentioned that

users are concerned whether online reporting is coming from valid sources and whether it is an accurate reflection of the facts. In practice, most companies do not regularly maintain online information (Fisher et al, 2004). Table 8-23 also shows that investors seem almost wholly moderately with the reliability and relevance of IFR. This is reflected by the mean and median scores, which are around 3. However, it would appear that the selected groups perceived this source differently. The private investors and institutional investors have a larger mean value for these criteria than do financial analysts. This can be explained by the background of the different respondents.

On the downside, Table 8-23 shows that respondents (as a whole sample) considered some criteria of the quality of Internet financial reporting as the ones they least agreed with: that the

1. Download speed of Saudi public companies' IFR is acceptable and that
2. Saudi public companies respond to Email enquires within an acceptable time.

In summary, this section has investigated the perception of different respondents' groups about the quality of IFR provided by Saudi public companies. Overall, Saudi users seem dissatisfied with the quality of Internet financial reporting provided by Saudi public companies. This is evidenced by the mean which are less than 4 for all items. Moreover, the study can report significant differences of opinion between the respondents' groups in their perception of the quality of Internet financial reporting, according to the results. The findings of this section are one of the contributions of this study to the knowledge in this field, because, to the best of the researcher's knowledge, no study so far has examined the quality of Internet financial reporting provided by Saudi public companies.

Table 8.23: Users' Perceptions of the Quality of IFR

Items	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Squar	P-value
			1	2	3							
Saudi public companies' IFR is understandable	303	3.58	3.54	3.61	3.58	4	4	.83	1	5	.219	.896
Saudi public companies' IFR is relevant	303	3.17	3.14	2.94	3.51	3	4	.95	1	5	14.996	.001*
Saudi public companies' IFR is reliable	303	3.07	3.04	2.91	3.32	3	3	.89	1	5	9.942	.007*
Saudi public companies' IFR is consistent	303	2.79	2.70	2.68	3.09	3	2	.93	1	5	13.784	.001*
Saudi public companies' IFR is comparable	303	3.09	3.13	2.87	3.32	3	4	.96	1	5	9.983	.007*
Saudi public companies' IFR is easy to access	303	3.66	3.80	3.60	3.52	4	4	.96	1	5	6.219	.045*
Transmission speed of Saudi public companies' IFR is acceptable	303	3.12	3.18	3.16	2.96	3	4	.98	1	5	2.528	.282
Saudi public companies respond to Email enquiries in acceptable time	303	2.51	2.52	2.50	2.53	2	2	.91	1	5	.173	.917
Download speed of Saudi public companies' IFR is acceptable	303	2.41	2.38	2.23	2.68	2	2	1.00	1	5	10.951	.004*
The design of Saudi companies' IFR satisfies investors	303	3.15	3.40	2.86	3.20	3	3	.91	1	5	17.271	.000*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors
Median and Mean: 5= Strongly Agree; 1= Strongly Disagree.

Table 8.24: Ranking of users' Perceptions of the Quality of IFR

Items	Private investors	Financial analysts	Institutional investors	All groups
Saudi public companies' IFR is easy to access	1	2	2	1
Saudi public companies' IFR is understandable	2	1	1	2
Saudi public companies' IFR is relevant	6	4	3	3
Saudi public companies' IFR is comparable (between companies)	5	6	4	4
Saudi public companies' IFR is reliable	7	5	4	5
The design of Saudi public companies' IFR satisfies investors	3	7	6	6
Saudi public companies' IFR is consistent	8	8	7	7
Transmission speed of Saudi public companies' IFR is acceptable	4	3	8	8
Download speed of Saudi public companies' IFR is acceptable	10	10	9	9
Saudi public companies respond to Email enquires in acceptable time	9	9	10	10

8.3.6. Respondents' needs (the impact of Internet financial reporting on users' information needs):

Chapter 3 of this study reviewed many studies which investigated users' information needs (Rowbottom et al, 2005; Jones and Xiao, 2004; Nasser et al, 2003; Jones et al, 2001; Beattie and Pratt, 2001; AICPA, 2000; Bell and Tang, 1999; Hassan et al, 1999; Bartlett and Chandler, 1997; Anderson and Epstein, 1995; Jenkins Report, 1994; Ba-owaidan, 1994; Abdelsalam, 1990; Wallace, 1988; Eng and Hasseldine, 1982; Firth, 1978; Benjamin and Stanga, 1977; and Baker and Haslem, 1973). Most of these studies examined the information needs of users of hard copy.

Moreover, the fifth chapter of this study reviewed many studies which examined the content of company websites all over the world: Lymer (1997), who analysed the largest 50 UK listed companies, Hussey et al (1999), who compared financial disclosure for the UK FTSE 100 in August 1997 and March 1998, Molero et al (1999), who examined Internet disclosure in Spain, Deller et al (1997), analysing German companies, Lymer (1998) and Lymer and Tallberg (1997), analysing UK and Finnish companies, Pirchegger et al (1998), analysing Austrian companies, Hassan (1999) analysing Malaysian companies, Abu Al-Azm (2000), analysing Saudi public companies, Joshi and Al-Bastaki (2000), analysing Bahrain banks, Xiao et al (2004), analyzing Chinese companies and Amir Allam (2006), in an international study. None of these studies, however, investigated IFR users' needs. Hence, the main purpose of the following sections is to examine IFR users' needs.

As explained in the research methodology chapter, the respondents to the present study were provided with a list of 23 possible alternative areas of information which could be disclosed on company website and were asked to indicate the level of importance of these areas using a five-point scale, where 5 indicates 'very important' and 1 indicates 'not important'. To enrich the analysis, these 23 items were divided into three groups. The first group includes 6 items which have a close relationship to the general content items. The second group of 7 items includes those which have a close relationship to credibility items.

The last group contains 10 items which have a close relationship to usability items. The following sub-sections will describe and analyse the opinions of the different users' groups about whether these information items should be disclosed in Internet financial reporting (IFR). The following sections start with the first group and deal with them all in turn.

8.3.6.1 General content items:

As can be seen from Tables 8-25 to 8-26, in general, the sample as a whole recognized general content features to be important items to disclose in the company website (the result is reflected by the mean and median scores for each items and is supported by rank, standard deviation and coefficient of variations, which are around or above 4). Respondents rated these features as follows:

IFR shown in multiple currencies (1st),
Tables of contents (2nd),
Email facilities to provide feedback and/or requests for further information (3rd),
A link from the first page to IFR (4th),
IFR provided in multiple measurement bases (5th) and
IFR provided in multiple GAAP (6th).

Jones and Xiao (2004) reported that by 2010 more companies will provide users with reporting in multiple currencies. In 2006, Abdelsalam et al found that only 10 percent of their sample offered financial information in alternative currencies and almost the same (10%) offered the exchange or link to a currency converter site. With this in mind, the respondents to the present study were requested to indicate the importance to them of providing financial information in multiple currencies. In terms of content, Tables 8-25 to 8-26 shows that providing IFR in multiple currencies is the first and most important items needed by the whole sample. This result was expected, since the companies in Saudi Arabia provide their financial information quoting the local currency. Users with the Internet feature of the global distribution of corporate information need comparability. The financial analysts and private investors appear to rate this feature more highly than the institutional investors do. The differences between groups' views are not significant.

Tables 8-25 to 8-26 show that the second most important kind of information for the sample as a whole (in terms of general content) is a table of contents. Financial analysts and institutional investors appear to rate this feature more highly than do private investors. The differences between groups' views are also not significant. Several previous studies have examined the provision of tables of contents/site maps (see Chapter 5). Khadaroo (2005), for example, mentioned that users with site maps (tables of contents) could go directly to a desired section. Abdelsalam et al (2006) reported that 71 percent of companies listed on the London Stock Exchange offered tables of contents. In developing countries, site maps are offered by 31% of Chinese companies (Xiao et al, 2004) and 81% of Malaysian companies (Khadaroo, 2005). Moreover, Beattie and Pratt (2001) found that almost half of their respondents (49%) believed that offering a hyperlinked site map or table of contents was valuable for users

Merholz (1999) claimed that a good website should also ask for feedback and seek to improve through responses. Abdelsalam et al (2006) found that 95 percent of their sample offered an online user feedback facility. As a result, the target group was requested to indicate the level of importance of providing email facilities for feedback and/or to request further information. In Tables 8-25 to 8-26, email facilities for feedback and/or requests for further information were in third position. Interestingly, institutional investors and private investors' views are closely aligned in this regard, whereas financial analysts put this item into fifth position. The differences between groups' views are again not significant.

A link from the first page to IFR was rated the fourth most important feature for all respondents (in term of content) as Tables 8-25 to 8-26 reveal. The financial analysts' view is halfway between the two other groups. Table 8-25 shows no differences among and within groups as to their rating of the importance of a link from the first page to IFR. A link of this kind has been examined in many previous studies (see Chapter 5). Providing a link between the investor relations section and the first page was offered by 22 percent of the FASB sample (2000). Marston and Polei (2004) found that 91 percent of German companies offered a hyperlink from the first page to information on investor relations. Smith and Peppard (2005) reported almost similar results (86%) in a different country

(Ireland). In 2006, Abdelsalam et al reported that 97 percent of their sample offered a link to the investor relations section and 95 percent of their sample chose an investor relations link which included the word 'investor' or 'financial' or something similar.

Respondents rated the disclosure of IFR in multiple measurement bases as the fifth most important feature and offering IFR in multiple GAAP came next. The result was expected, since the companies in Saudi Arabia provide financial information based on local accounting standards. Users with the Internet feature of global distribution of corporate information need comparability. With regard to whether there are any significant differences of opinion between the respondents' groups in their perceptions of the disclosure of IFR in multiple measurement bases, the results indicate none in most cases, as represented by a low chi-square score. Moreover, the Kruskal-Wallis Test suggests that there are significant differences between respondents in regard to offering IFR in multiple GAAP. Several studies examined these two features in the past, for example, Jones and Xiao (2004), who found that by 2010 more companies will provide reporting in multiple measurements and GAAPs. Xiao et al (2004) also found that only 6 percent of their sample offered financial information in alternative GAAP.

In summary, the results revealed that Saudi users participating in this study, in general, agreed with most of the general content features. This was clearly reflected by the mean scores, which registered above 4 in most cases. In addition, the median score was above 4 for all items. The Kruskal-Wallis Test suggests that there are no significant differences between groups of respondents in most cases.

Table 8.25: General Content Items

Items which companies should provide	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
			1	2	3							
IFR in multiple measurement bases	303	4.12	4.22	4.12	3.99	4	4	.91	1	5	4.126	.127
IFR in multiple GAAP	303	3.52	3.63	3.28	3.71	4	3	1.11	1	5	8.461	.015*
IFR in multiple currencies	303	4.36	4.35	4.43	4.28	4	5	.75	1	5	3.116	.211
A link from first page to IFR	303	4.17	4.14	4.26	4.09	4	4	.71	1	5	2.299	.317
A table of contents	303	4.25	4.17	4.34	4.24	4	4	.73	1	5	2.593	.273
Email facilities to provide feedback and/or request further information	303	4.25	4.35	4.11	4.30	4	4	.80	1	5	5.033	.081

*Significant at 5 percent level, **1- Private investors, 2. Financial analysts, 3. Institutional investors
Median and Mean: 5= Very important ; 1= Not important at all

Table 8.26: Ranking of Users' General Content Items by level of need

Items	Private investors			Financial analysts	Institutional investors	All groups
	1	2	3			
IFR in multiple currencies	1			1	2	1
A table of contents	4			2	3	2
Email facilities to provide feedback and/or request further information	2			5	1	3
A link from first page to IFR	5			3	4	4
IFR in multiple measurement bases	3			4	5	5
IFR in multiple GAAP	6			6	6	6

8.3.6.2 Credibility items:

As mentioned above, the second group (7 items) includes those items relate closely to credibility items. It can be seen from Tables 8-25 to 8-26, in general, that the sample as a whole recognized credibility items to be important items to disclose on a company website (the result is reflected by the mean and median scores for each item and is supported by rank, standard deviation and coefficient of variations, which are around or above 4). Respondents rated these feature as follows:

Hyperlinks to the auditor's home page (1st),
 Updating IFR weekly (2nd),
 Providing the date of last change (3rd),
 Real-time IFR (4th),
 Updating IFR monthly (5th),
 Updating IFR quarterly (6th) and
 Clear indications when users leave IFR for another source (7th).

As can be seen in Tables 8-27 to 8-28 there are differences among and between groups as to the value of updating IFR weekly, providing the date of the last change, real-time IFR, updating IFR monthly, updating IFR quarterly, and showing clearly when users leave IFR for another source. These differences seem to be due to the educational and experiential background of the respondents.

All groups consider hyperlinks to the auditor's home page very important (in term of credibility). This item is also first for private investors, financial analysts and institutional investors. This pattern of users' rating of this item reflects their concern about the reliability of Internet financial reporting. They are also looking for a third part to confirm that the online reporting comes from a valid source and is an accurate reflection of the facts. In addition, the median score was 5 for offering hyperlinks to the auditor's home page. The differences between groups' views are not significant.

In Tables 8-27 to 8-28, generally speaking, providing the date of the last change rated (in terms of credibility) as the third most important feature for all respondents, who made their last item the clear indication when users leave IFR for another source. Interestingly, institutional investors and financial analysts' views are closely aligned as regards the value of showing the date when the site was last changed, whereas private investors put this item in sixth position. This difference may be due to the fact that most private investors are not aware of the importance of this item. The differences between groups' views are significant.

Another factor enhancing credibility is timeliness; the usefulness of information disclosed by a company is measured, among other things, by its relevance (Debreceeny and Rahman, 2005). For the corporate information to be relevant, it must be available to decision-makers before it loses its capacity to influence their decisions. AIMR (2000) also claimed that frequent and timely disclosures are considered important factors of the quality of disclosure. Moreover, Abdelsalam et al (2006) mentioned that one of the main components of Internet financial reporting credibility is its timeliness. It worth mentioning that Abdelsalam et al (2006) asserted that the timeliness of Internet financial reporting (IFR) is rarely addressed (see Chapter 5 for more details). In order to determine the respondents' attitude to releasing information, whether financial information or newsletter/market reviews, on a more timely basis, they were given four options and asked for their opinion. Responses to this question are summarised in Tables 8-27 to 8-28 (the result is reflected by the mean and median scores for each source and is supported by rank, standard deviation and coefficient of variations):

Tables 8-27 to 8-28, in general, indicate that all updating options are viewed as important by most participants. This was clearly reflected by the mean scores, which registered above or around 4. In addition, the median score was above 4 for all items. The Kruskal-Wallis Test suggests that there are significant differences between respondents and the frequency of IFR. The whole sample

rated the updating frequency options in the following order:

1. Updating IFR weekly
2. Real-time IFR
3. Updating IFR monthly
4. Updating IFR quarterly

Looking at the groups individually, updating IFR weekly was the second most popular choice among the private investors (measured by mean value). It was put in fourth place by the financial analysts and institutional investors. The financial analysts did not give the highest importance to updating IFR weekly because they want reporting to be even more frequent.

Real-time IFR is the third most important item to financial analysts, fifth most important to the private investors and sixth to institutional investors. The result may indicate the level of sophistication of financial analysts. Tables 8-27 to 8-28 also show that updating IFR monthly came next. It was the third most important item to private investors, fifth most important to the financial analysts and seventh most important to institutional investors.

Professional investors (financial analysts and institutional investors), unlike private investors, gave relatively little importance to the quarterly updating of IFR. With regard to whether there are any significant differences in opinion between the selected groups, the results reveal that there were indeed significant differences, as reflected by the high chi-square score and significance level.

Table 8.27: Credibility Items

Items which companies should provide	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
			1	2	3							
Hyperlinks to the auditor's home page	303	4.35	4.46	4.31	4.26	5	5	.77	1	5	1.984	.371
Clear indication when users depart IFR	303	3.77	3.56	3.92	3.84	4	4	.85	1	5	11.312	.003*
The date of the last change	303	4.03	3.89	4.21	3.98	4	4	.69	1	5	11.429	.003*
Quarterly updating of IFR	303	3.84	4.06	3.66	3.80	4	5	.74	1	5	16.773	.00*
Monthly updating of IFR	303	3.97	4.13	3.98	3.72	4	4	.88	1	5	10.749	.005*
Weekly updating of IFR	303	4.09	4.30	4.05	3.84	4	4	.89	1	5	17.123	.00*
Real-time IFR	303	3.98	4.05	4.09	3.74	4	4	.88	1	5	11.889	.003*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors
Median and Mean: 5= Very important ; 1= Not important at all

Table 8.28: Rank Users' Credibility Items Need

Items which companies should provide	Private investors		Financial analysts		Institutional investors		All groups
Hyperlinks to the auditor's home page	1	1	1	1	1	1	1
Weekly updating of IFR	2	4	4	4	4	4	2
The date of the last change	6	2	2	2	2	2	3
Real-time IFR	5	3	3	6	6	6	4
Monthly updating of IFR	3	5	5	7	7	7	5
Quarterly updating of IFR	4	7	7	5	5	5	6
Clear indication when users leave IFR for another source	7	6	6	3	3	3	7

8.3.6.3 Usability items:

The last group of 10 items includes those which have a close relation to usability items. Responses to these items are summarised in Tables 8-29 to 8-30 (the result is reflected by the mean and median scores for each source and is supported by rank, standard deviation and coefficient of variation). Looking at the group means, it is clear that users rated these options as follows:

Providing IFR in a word-processing format (1st),
 Layering information to avoid information overload (2nd),
 Providing IFR in PDF format (3rd),
 Presenting IFR on different pages for each group of users (4th),
 Allowing users to access raw data (the company database) (5th),
 Providing IFR in spreadsheet format (6th),
 Providing IFR in XML format (7th),
 Presenting IFR in a highly aggregated manner (8th),
 Providing IFR in HTML format (9th),
 Providing IFR in multiple languages (10th).

As can be seen from Tables 8-29 to 8-30, In general, the sample as a whole recognised usability as an important item for disclosures on company websites (the result is reflected by the mean and median scores for each items and standard deviation and coefficient of variations) which are around or above 3.5 in most cases. In addition, the median score was above 4 for most of the items. As is seen in Tables 8-29 to 8-30, there were differences among and within groups. The Kruskal-Wallis Test suggests that there are significant differences between respondents. These differences seem to be due to educational and experiential features.

In terms of IFR presentation, previous researchers claimed that Internet technologies give a company a chance to make the disclosure much more useable by using different formats. These include the possibility of providing financial information in different formats, such as PDF, HTML and Spreadsheet (e.g. Abdelsalam et al, 2006; Amir Allam, 2006; IR, 2006; Fisher et al, 2004; Xiao et al, 2004; Marston and Polei, 2004; Geerlings et al, 2003; IASC, 1999; Hussey et al, 1999; Molero et al, 1999; and Lymer, 1997). Moreover, Beattie and Pratt (2001) found that the spreadsheet format (2.21) is seen as being of

most use, from the users' perspective, followed by word-processed files (2.31) and the XBRL format (2.41). The more common current format, HTML (2.5) and PDF (2.51), are seen as being of the least use.

Thus this study attempts to identify Saudi users' opinion regarding these different formats. In order to determine the respondents' attitude to receiving information in different formats, they were given five options and asked for their opinion. In general, all formats are seen as being useful from the users' perspective. This was clearly reflected by the mean scores, which registered almost above 3.5. In addition, the median score was around 4 in most cases. The Kruskal-Wallis Test suggests that there are significant differences between respondents in most cases. As can be seen from Table 8-30, the respondents' rating of the value of the different formats is as follows:

1. IFR in word-processing format
2. IFR in PDF format
3. IFR in spreadsheet format
4. IFR in XML format
5. IFR in HTML format

Looking at the groups individually, the word-processing format was assigned as most useful (measured by mean value) by private investors and financial analysts. It was put in fourth place by institutional investors. Private investors and financial analysts appear to rate the disclosure financial information in PDF format more highly than the institutional investors. It is also worth noting that all users considered presenting financial information in spreadsheet format as the third most valuable option. Interestingly, HTML, the most common format, is seen as being the least preferable option.

In term of IFR structure, previous studies identified 3 models of IFR (see Chapter 4). These models are: to allow users access raw data (company database) (Xiao et al, 2002b; Wallman, 1999; and Spaul, 1997); to present IFR in different ranges packaged for each group of users (Beattie and Pratt, 2001); and to use a high level of aggregation (standard reporting). In this regard, this study investigated the respondents' attitude towards the release of information

in these three ways, by giving them three options and asking their opinion. Responses to this question are summarised in Tables 8-29 to 8-30 (the result is reflected by the mean and median scores for each source and is supported by rank, standard deviation and coefficient of variations).

As Table 8-29 clearly shows, in general, the respondents rated all these options of structuring information as important. This was clearly reflected by the mean scores, which registered around 4 in most cases. In addition, the median score was around 4 for all items. With regard to whether there are any significant differences in opinion between the selected groups, the results reveal that the differences between the groups' views are significant (except for 'Presenting IFR in a highly aggregated manner'), as reflected by the high chi-square score and significance level (the Kruskal-Wallis test). Looking at the group means, it is clear that users rated these options as follows:

1. Presenting IFR in different range packaged for each group of users,
2. Allowing users to access raw data (company database),
3. Presenting IFR in a highly aggregated manner.

Looking at the groups individually, presenting IFR in different ranges packaged for each group of users was ranked in second place by financial analysts, third by institutional investors and fourth by private investors. It is interesting that institutional investors preferred access to raw data (on a company database) more than the other groups did. It is also worth noting that all the users considered presenting Internet financial information in a highly aggregated manner as the least preferable option.

Finally, Tables 8-29 and 30 show that the last important feature was providing IFR in multiple languages. This can be explained on the ground that the majority of Saudi citizens are not familiar with other languages. However, the institutional investors rated this feature as the third most useful. The Kruskal-Wallis Test and high chi-square score suggest that there are significant differences between respondents regarding providing IFR in multiple languages.

In summary, this section has analysed the perceptions of different respondents groups about the importance of disclosing certain items of information on the company website. These items were divided into three groups. In respect of the first group of items, the respondents considered providing these items to be the most important; IFR in multiple currencies, a table of contents, email facilities to provide feedback and/or request further information, a link from the first page to IFR and IFR in multiple measurement bases. For the second group the most important items to provide were: hyperlinks to the auditor's home page, weekly updates of IFR, providing the date of the last change, real-time IFR and monthly updates of IFR. Providing IFR in word-processing format, layered information to avoid information overload, IFR in PDF format, IFR in different ranges for each group of users and access to raw data (company database) were rated as the most important items by the third group. This demonstrates that different users of financial information have different information needs. Now, the next chapter will examine the Internet financial reporting actually provided by Saudi public companies.

Table 8.29: Usability Items

Items which companies should provide	Freq	Mean	Group**			Median	Mode	SD	Min.	Max.	Chi-Square	P-value
			1	2	3							
IFR in multiple languages	303	3.24	3.32	2.79	3.74	3	4	1.33	1	5	23.290	.000*
IFR in HTML format	303	3.32	3.20	3.30	3.54	3	3	.91	1	5	6.177	.046*
IFR in PDF format	303	3.96	3.94	3.96	3.99	4	4	.74	1	5	.068	.966
IFR in word-processing format	303	4.21	4.41	4.15	4.03	4	5	.91	1	5	13.345	.001*
IFR in spreadsheet format	303	3.54	3.49	3.34	3.90	4	4	1.13	1	5	10.639	.005*
IFR in XML format	303	3.43	3.40	3.32	3.62	4	4	1.04	1	5	4.414	.110
Layered information to avoid information overload	303	3.98	3.82	3.96	4.21	4	4	.86	1	5	8.579	.014*
IFR in a highly aggregated manner	303	3.34	3.31	3.20	3.59	4	4	1.06	1	5	5.623	.060
IFR in different range paged for each group of users	303	3.94	3.80	3.98	4.08	4	4	.85	1	5	7.898	.020*
Access for users to raw data (company database)	303	3.88	3.79	3.79	4.13	4	4	.87	1	5	12.939	.002*

*Significant at 5 percent level, **1- Private investors. 2. Financial analysts. 3. Institutional investors
Median and Mean: 5= Very important ; 1= Not important at all

Table 8.30: Users' Usability Items Need

Items which companies should provide	Private investors	Financial analysts	Institutional investors	All groups
IFR in word-processing format	1	1	4	1
Layered information to avoid information overload	3	4	1	2
IFR in PDF format	2	3	5	3
IFR in different ranges paged for each group of users	4	2	3	4
Access for users to raw data (company database)	5	5	2	5
IFR in spreadsheet format	6	6	6	6
IFR in XML format	7	7	8	7
IFR in a highly aggregated manner	9	9	9	8
IFR in HTML format	10	8	10	9
IFR in multiple languages	8	10	7	10

8-4 Conclusion:

As been explained at the beginning of this chapter, its main objectives were, first, to provide descriptive statistics about respondents' background. Second, this chapter also examined respondents' perceptions about Internet infrastructure in Saudi Arabia, the information sources for companies in Saudi Arabia, respondents' perceptions of the advantages and then the disadvantages of Internet financial reporting, respondents' perceptions of the quality of Internet financial reporting and respondents' needs in Internet financial reporting.

According to the account, the majority in the target sample were private investors, located in the western region and highly educated. They are qualified in business, aged between 30 and 50, make most of their investments in the local market and preferably in the industrial sector. Moreover, the majority of the target group were fully experienced in the Internet, heavy Internet users and were searching for business information they considered Tadawul the most important source and financial information is the part of the website that most attracts them.

The second part of Chapter 8 reported that overall, respondents appear dissatisfied with Internet infrastructure in Saudi Arabia. In terms of users' sources of information on companies in Saudi Arabia, the results clearly showed that different interested parties in Saudi Arabia perceived some sources of information to be more valuable than others. Private investors have different views from the rest. In terms of respondents' perceptions of the possible advantages of IFR, the results revealed that, in general, private investors' opinions, again, were different from those of other professional groups. In terms of disadvantages of IFR, the results revealed that there were indeed significant differences, as reflected by the high chi-square score and significance level. With regard to whether there were any significant differences of opinion between the respondents' groups in their perception of the quality of Internet financial reporting, the results indicate significant differences in opinion, as represented by a high chi-square score. The last part of Chapter 8 reported the impact of Internet financial reporting on users' information needs. The respondents were provided with a list of 23 items of alternative information

which could be disclosed on a company website. These items were divided into three groups (general content items, credibility items and usability items). The study found that the sample as a whole has recognized these items to be important items to disclose on the company website with a score of around or above 4 in most cases.

**MISSING
PAGES ARE
UNAVAILABLE**

Chapter 9: Disclosure Index Analysis

9-1 Introduction:

As noted in the methodology chapter, one of the objectives of this study is to provide a useful description of the websites provided by Saudi Arabia public companies, whether they disclose their financial and investor information on the Internet and how this information may be evaluated.

Previous studies (see Chapters 4 and 5) showed that while many companies have established a website, there are variations in the content of different companies' websites (Kelton and Yang, 2008; Abdelsalam et al, 2007; Mathieu et al, 2006; Allam, 2006; Abdelsalam et al, 2006; Smith and Peppard; 2005; Khadoree, 2005; Oyelere et al, 2004; Xiao et al, 2004; Abdelsalam et al, 2004; Marston, 2003; Debreceeny et al, 2002; Ettredge et al, 2002; Ettredge et al, 2001; FASB, 2000; Marston and Leow, 1998; Flynn and Gowthorpe, 1997; and Lymer, 1997). Based on these studies, this research evaluated Saudi company websites based on a catalogue of criteria. The criteria used in this study are divided into two groups: Content (general content and credibility) and Usability. A detailed analysis of the responses is presented for discussion in this chapter. To fulfill its aims, Chapter 9 is divided into the following sections:

- Descriptive statistics for the dependent variables.
- Frequency distributions for the companies which have websites.
- Frequency distributions for the companies' disclosure of financial information in their websites.
- Descriptive statistics for the independent variables.
- Conclusion.

9.2 Descriptive statistics for the dependent variables:

Data for the independent variables are provided in Tables 9.1 and 9.2. It can be determined from Table 9-1 that 73 percent (83) of the target sample are listed on the Saudi Stock Market. 37 percent of the companies in the services sector, with the same result for the industrial sector (9 percent banking and 9 percent agricultural); the remaining 8 percent are the cement sector. The same table reveals that most of the target samples are audited by local audit firms (63%). Moreover, most (59 percent) of the companies are owned by private investors, 29 percent of the companies are owned by institutional investors, and only 12 percent owned by government. On average, 13% of the CEOs in the sample firms are also the chairman of the board (DUAL).

Table 9.2 also shows that the mean total assets 50330.345.2743 (SR million), while the mean for the return on total assets (profitability) is 7.0857 percent. Descriptive statistics (Table 9.2) also show that a high proportion of shares is available to individual investors (approximately 54%), 33 percent for institutional investors, 13 percent for government. As shown in Table 9-2, the average number of members on the board of directors is 8.

Table 9.1:
Descriptive Statistics for all Saudi Public Companies
(Categorical Variables)

Independent variables	No	%
Stock market		
listed	83	73
Non listed	30	27
Total	113	100
Industrial classification		
Banking	10	9
Industrial	42	37
Cement	9	8
Service	42	37
Agricultural	10	9
Total	113	100
Auditor		
Local only	71	63
Local affiliation with one of big 4	42	37
Total	113	100
Number of major shareholders		
Government ownership	13	12
Institutional ownership	33	29
Individual ownership	67	59
Total	113	100
Dual role		
The CEO is also the chairman of the board	15	13
Two positions are occupied by different individuals	98	87
Total	113	100

Table 9.2:
Descriptive Statistics for all Saudi Public Companies (Categorical & Continuous Variables)

Independent variables	Mean	Median	Mode	Std. D.	Min.	Max.
Stock market listed	.73	1.00	1.00	.44	0	1
Industrial classification	3.00	3.00	2.00	1.2	1	5
Auditor	1.37	1.00	1.00	.49	1	2
Total assets (size) (SR million)	503,303,45.2743	811,437	442,97	416,527,275.4418	442,97	442,785,4699
Return on total assets (profitability) (%)	7.09	4.20	1.20	7.6	-4.99	31.1
Percentage of government ownership	.13	0	0	.27	0	100
Percentage of institutional ownership	.33	15	0	.38	0	100
Percentage of individual ownership	.54	.60	0	.38	0	100
Number of the board of directors	7.96	8	7	2.14	2	12

9.3 Frequency distributions for the companies which have websites:

All 113 Joint Stock Companies in the Kingdom of Saudi Arabia at the end of 2005 were included in this study. Two approaches were used to determine the Internet presence. First, three websites – the Saudi Stock Market website (TADAWUL) at www.tadawul.com.sa, the Ministry of Commerce website at <http://www.commerce.gov.sa> and the Saudi Network Information Center (SaudiNIC) at www.saudinic.net.sa were used to obtain the web addresses of the relevant companies. Second, in some rare situations, a few companies' websites could not be located and other sources were used (e.g. www.google.com.sa, www.saudia-online.com and www.gulfbase.com). Third, the remaining companies were contacted by telephone to find out whether or not they had established corporate websites and if so what their web addresses were.

Table 9-3 presents the distribution of websites used by Saudi Arabian companies by industry, size, profitability, stock market, and auditor. 95 companies (84%) have websites, the highest proportions of companies with website being in either the banking sector (100%) or the cement sector (89%). This compares with about 76% for the service companies. The result suggests that industrial classification is a potential factor affecting companies' decision to create a website. On the basis of being listed on the stock market, 93% of the listed companies have an Internet presence, as compared with 60% of companies not listed on the Saudi Stock Market. This result shows that being listed on the stock market is considered a potential factor in a company's decision to create a website.

On the basis of auditing, companies audited by a local audit firm affiliated with one of the Big 4 have the highest proportion of corporate websites, 93%, compared with about 79% for the companies audited by a local auditor. The observation from these results is that the Internet (website) is considered an important channel of communication for companies.

This sub-section will compare the results reported in this study with results reported in similar studies which examined the current level of Internet use (see Chapter 4). In USA studies, Ettredge et al (2002) found that 88% of their sample had a website. In the European studies, Lymer in 1997 found that 92 percent of the top 50 UK companies had a website. In developing countries, 49% of all Saudi listed companies had a website (Abu Al-Azm, 2001) and 83% of the 300 largest Chinese companies had one (Xiao et al, 2004). Comparing the study results with Abu Al-Azm's (2001) reveals that the number of Saudi public companies with a website has increased over time.

Table 9.3:
Distribution of Website Using Companies by Industry, Stock Market, and Auditor.

Panel A: by Industrial Classification.

Web availability	All (113)	Industrial classification				
		Banking (10)	Industrial (42)	Cement (9)	Service (42)	Agricultural (10)
Frequency	95	.10	37	8	32	8
Percent	.84	1	.88	.89	.76	.80
Mean	.84	1	.88	.89	.76	.80
Median	1.00	1	1	1.00	1	1
Mode	1	1	1	1	1	1
Std. D.	.368	0	.328	.333	.431	.422
Minimum	0	1	0	0	0	0
Maximum	1	1	1	1	1	1

Table 9.3:
Panel B: by Stock Market and Auditor.

Web availability	All (113)	Stock market		Auditor	
		Listed (83)	Non Listed (30)	Local (71)	Big 4 (42)
Frequency	95	77	18	56	39
Percent	.84	.93	.60	.79	.93
Mean	.84	.93	.60	.79	.93
Median	1	1	1	1	1
Mode	1	1	1	1	1
Std. D.	.368	.261	.498	.411	.261
Minimum	0	0	0	0	0
Maximum	1	1	1	1	1

9.4 Frequency distributions for the companies' disclosure of financial information on their websites:

Table 9.4 showed that 45 % (51) of the companies have a financial information section of some description under the title 'financial Information' or another equivalent name, such as Financial, Investor Relations or Shareholders' Information. This indicates the low importance given to the making financial information available via the Internet by Saudi public companies, in particular via the web. Again, the bank sector (100%) and the cement sector (67%) have the highest proportions disclosing financial information. Half the industrial companies (50%) provide financial information online. The agricultural and service sectors were rated as lowest in their disclosure of financial information online (30% and 26% respectively). This result suggests that company classification based on sector is a potential factor affecting a company's decision to disclose financial information. The same suggestion applies to membership of the stock market: 58% of the listed companies disclosed financial information in their website, as compared with 10% of companies not listed on the Saudi Stock Market. On the basis of type of auditor, the group of companies audited by a local audit firm affiliated with one of the Big 4 have the highest proportion disclosing financial information, 62%, compared with about 35% for the companies audited by a local audit firm. This result shows that the type of auditor is considered a potential factor affecting a company's decision to disclose financial information.

Several past studies have examined the content of such websites, in particular, with regard to the disclosure of financial information. The results found in the present study will be compared with results reported in the literature. Regarding the percentage of companies disclosing financial information, the result found here (68%) is similar to the findings of some other studies around the world. Examples are Laymer & Tallberg (1997) in Finland (56%), Joshi & Al-Bastak (2000) in the bank sector of Bahrain (51%), Abu Al-Azm (2001) in Saudi Arabia (9%), Oyelere et al (2003) in New Zealand (39%) and Xiao et al (2004) in China (48%). It should be mentioned that the difference between the present study and some of the previous studies is that most of the previous studies targeted only the largest companies.

Table: 9.4
Distribution of Financial Information Availability Using Companies by Industry, Stock Market, and Auditor.

Panel A: by Industrial Classification

Financial Information Availability	All (113)	Industrial classification				
		Banking (10)	Industrial (42)	Cement (9)	Service (42)	Agricultural (10)
	Frequency	51	21	6	11	3
	Percent	45	50	67	26	30
	Mean	.45	.50	.67	.26	.30
	Median	0	.50	1	0	0
	Mode	0	0	1	0	0
	Std. D.	.500	.506	.500	.445	.483
	Minimum	0	0	0	0	0
	Maximum	1	1	1	1	0

Table: 9.4
Panel B: by Stock Market and Auditor.

Financial Information Availability	All (113)	Stock market		Auditor	
		Listed (83)	Non Listed (30)	Local (71)	Big 4 (42)
Frequency	51	48	3	25	26
Percent	45	58	10	35	62
Mean	.45	.58	.10	.35	.62
Median	0	1	0	0	1
Mode	0	1	0	0	1
Std. D.	.500	.497	.305	.481	.492
Minimum	0	0	0	0	0
Maximum	1	1	1	1	1

9-5 Frequency distributions of the disclosure index:

Chapter 7 mentioned that the dependent variables are constructed from the 168 items in the disclosure index. In all, the Internet financial disclosure index (IFR) is operationalised in three ways. The primary measure is total scores, a company's total disclosure score across all 168 items. The remaining two measures are constructed from different subsets of the 168 items, so as to focus on specific attributes of disclosure. Consistent with Abdelsalam et al (2006), content has been distinguished from usability. The content section measures the general content of two subjects (30 items) and their credibility (57 items). The final section primarily measures usability items (81 in total). All of the 168 attributes were investigated in the major studies (Abdelsalam et al, 2006; Fisher et al, 2004; Xiao et al, 2004; Abdelsalam et al, 2004; Lymer and Debreceeny 2003; Oyelere et al, 2003; Marston and Polei 2002; Debreceeny et al, 2001; FASB, 1999; IASC, 1999; Deller et al, 1999; and Pirchegger 1999). All the accessible websites (95) of the 113 sample companies were visited twice and on the second occasion downloaded (by using Offline-Explorer-Pro) between August 2 and 17 2006, to check for the presence of each of the 168 disclosure items. A score of 1 (for present) and 0 (for absent) was assigned to each item of content. If visibility was judged as good, it scored "1" so long as the item was either clearly noticeable on the website or easily located, using a site map or search facilities; otherwise, visibility scored 0. An item was coded as "NA" if it was not applicable to the company being analyzed. The 18 companies which either had an inaccessible website or none at all were assigned overall disclosure scores of zero.

Overall IFR comprehensiveness in each of the three areas assessed by the dependent variables is summarized in Table 9-5. Table 9-5 represents a "scorecard" of IFR comprehensiveness. The total score has a minimum of zero % and a maximum of 74% with a mean of 28% and a standard deviation of .19. However, none of the sample companies provided/satisfied 100% of the 168 index items applicable to that company, thereby highlighting the opportunity for further improvement in IFR practices.

Furthermore, insight is achieved by examining the scores for the dependent variables, focusing particularly on usability and each of the two content sections. On average, the companies performed best on general content and usability, where they provided 33% and 31% respectively of the items. On average, companies scored low, only 21%, on credibility. The following sections demonstrate in some detail how companies are delivering information via the Internet. The first section assesses the extent of online corporate disclosure of a selection of elements of general content. The second main section will examine the credibility of the online disclosure. The third main section will examine the usability of Saudi public companies websites. The presentation of the data analysis follows the same sequence as that of the disclosure index and it is presented below.

Table 9.5: IFR Comprehensiveness Index Descriptive Statistics (Dependent Variables)

Variable name	Variable description	MIN	MAX	MEAN	STD
Total score (168 items)	Percent of relevant content and usability items provided or satisfied	0	.74	.28	.19
General content (30 items)	Percent of relevant general content items provided	0	.93	.33	.26
Credibility (57 items)	Percent of relevant content items relating to credibility provided	0	.70	.21	.20
Usability (81 items)	Percent of relevant usability items satisfied	0	.70	.31	.18

9-5-1 General content items:

The first part of the disclosure index consists of 30 items dealing with general content (according to users' need), for example, financial information (e.g. balance sheet, income and cash flow statement), shareholders and related information (e.g. information about how to buy stock, where company shares are traded and information about today's high/low share price or percentage). The three tables 9-6a (Tables 9-6b and 9-6c in appendix 7) show the study findings; Table 9-6a shows the percentage of companies which include each item, based on the total sample. Table 9-6b compares the study findings with previous studies and Table 9-6c shows the percentage of companies to include each item, based on the applicable companies.

9-5-1-1 General content items disclosed, based on the users' needs in the total sample:

Overall, the five most frequently disclosed items of general information, as shown in Table 9-6a, were the online user feedback facility (82%), site map (81%), products and services profile (81%), company background profile (80%) and press releases (61%). At the other end of the spectrum, the five least frequently disclosed items, in terms of general information, were financial information in alternative currencies (1%), exchange or link to a currency converter site(1%), annual shareholders' meeting agenda and notice (5%), details regarding major shareholdings (10%) and an investors' glossary to explain difficult financial terminology (11%). Also noticeable is that less than half of the sample presented financial information. For example, only 44% of the sites provided an income statement, 43% provided a balance sheet and 41% provided a statement of cash flow. The following sections discuss some of these items in more detail and compare the study results with previous research. The section divides into two main themes; financial information, first, and then shareholders' information. Each of these themes starts with the most common items first, followed by the more rarely disclosed items. It should be noted that results percentage provided here refers to the total sample.

9.5.1.1.1 Financial information items:

In 2006, the Investor Relations Society (IR) claimed that any good website should provide the most important financial information online (e.g. balance sheet, income statement and statement of cash flow). The most common item, in the study finding, is the income statement (44%). While 100% of the banking corporations offered an income statement, fewer data were provided by the cement, industrial, agricultural and service corporations (56%, 50%, 30% and 26%, respectively). This item was the subject of some previous studies conducted in different parts of the world (see Table 9-6b). The result reported here is similar to that found by Joshi and Al-bastaki (2000): 46% for Bahrain companies, and the 44% found for Chinese companies (Xiao et al, 2004). Ettredge et al (2001) in contrast revealed that 72% of US companies provided an income statement and 62% of Malaysian companies did so (Khadaroo, 2005). This comparison indicates that Saudi public companies are in the middle ranks of those providing such information online.

Table (9-6a) shows that 43% of the sample included in this survey provided a balance sheet. However, the results are not homogeneous. All banks (100%) made the provision of balance sheet statement online, whereas the disclosure of a balance sheet was less common in the industrial, cement, services and agricultural corporations (48%, 56%, 26 and 30% respectively). This finding is consistent with the findings of some of the studies reported in the literature (see Table 9-6b). For example, Flynn and Gowthorpe, 1997 found 50% of their sample offering such information and 44% was found for Chinese companies (Xiao et al, 2004). Khadaroo (2005) and Joshi and Al-bastaki (2000), however, reported different results in different experimental studies. Khadaroo (2005) found that 65% of Malaysian companies offered a balance sheet and Joshi and Al-bastaki (2000) found that 16% of Bahraini companies offered such information.

The next item is cash flow. As shown in Table 9-6a, it was found that on average 41% of Saudi public companies provided a statement of cash flow. All banking companies (100%) provided a statement of cash flow, more than in the four other sectors. Industrial, cement and agricultural followed, 48%, 33% and

30% respectively while only 24% of service companies provide a statement of cash flow. Cash flow data are supplied by 98% of Marstona and Polei's sample (2004), by 99% of Abdelsalam et al's sample (2006) and 31% by Joshi and Al-bastaki (2000). It is worth mentioning that most of the previous studies targeted only the largest companies.

9.5.1.1.2 Shareholders and related information:

The IR (2006) guide specified (see Chapter 5) that each company website should have an up-to-date shareholder information section which should include: shareholding analysis by size of holding, type of holding and location, and details of the company's annual general meeting (AGM) and should include the total of votes cast for and against each resolution, plus abstentions. In this respect the following sections discuss in more detail some of the most common items disclosed by Saudi public companies and compare the study results with previous research.

First, a feedback channel is considered important because it encourages greater interaction and 'personal' contact with users of the site and improves the services/products provided by the company (Merholz, 1999 and IR, 2006). As shown in Tables 9-6a, it was found that, on average, 82 percent of the total sample covered in this study provided an online user feedback facility ('contact us' or investor request information). More banks (100%) provided user feedback than did the four other sectors. Industry and agriculture followed, 86% and 80% respectively; whereas cement and service companies had almost the same percentage, 78% and 76% respectively. The previous findings reported in the literature are not very similar to those of the present study, since some studies in other parts of the world have targeted only the largest companies and have taken in the developed world also (see Table 9-6b). For example, Abdelsalam et al's survey (2006) reported that 95% of their sample made a feedback facility available online, whereas the survey conducted by Xiao et al (2004) found that only 20% of Chinese companies did so. In the light of this finding, Saudi public companies are providing more features to make their websites more dynamic and interactive for users.

The second most frequently disclosed item was a site map. Khadaroo (2005) claimed that a user with a site map (table of contents) could go directly to a desired section. Overall, 81 percent of the companies surveyed provided a site map through their corporate websites. While 100% of the banking corporation offered a site map, fewer data were provided by the industrial, agricultural, cement and service corporations (86%, 80%, 78% and 71%, respectively). This item was the subject of some previous studies conducted in different parts of the world. The result reported here is similar to that found by Khadaroo in 2005 (81% for Malaysian companies), while the result was 77 percent for Marston and Polei's sample (2004), 87 percent for the FASB sample (2000) and 71 percent for Abdelsalam et al's sample (2006). Smith and Peppard's study (2005) reported that 60 percent of Irish companies provided a site map and Xiao et al (2004) reported that 31 percent of Chinese companies did so (see Table 9-6b). This comparison indicates that Saudi public companies seem to be realizing the importance of providing such information to their investors and other stockholders.

Third comes information about service and products. The results of the survey revealed that, overall, 81% of the companies surveyed provided such information. This result is not surprising since the previous studies (see Chapter 4) claimed that marketing service and products is considered the main reason for a company to adopt an Internet presence (Xiao, 2000; Hassan et al, 1999; and Taylor, 1998). Again, more banks (100%) provided information about their service and products than companies in the four other sectors. Industry and agriculture followed, 88% and 80% respectively; whereas the cement and service companies were almost the same, at 67% and 71% respectively. This finding is consistent with the finding of some studies reported in the literature (see Table 9-6b). Hourigan (1999) found 80%, FASB (2000) reported 83%, Khadaroo (2005) found 74%. Nevertheless, the result is totally different from the findings of some other studies around the world. Examples are Oyeler et al (2003), who found 99% of New Zealand companies offering information about their services and products and Allam (2005), who found that only 3 % of the top 50 companies in 5 countries disclosed information about their service and products. The differences between these results are tied up with the

methodology used in each study to recognize whether or not a company includes service or product information.

The fourth most frequently disclosed general information item was a company background profile (corporate profile). A corporate profile details the history of the company, its geographical reach, company mission, goals and objectives. Table 9-6a in general shows that 80 percent of the companies provided a company profile online. Moreover, 100 percent of the banking sample did so. Industry, agriculture, services and cement sectors followed (88%, 80%, 69% and 67% respectively). This item was the subject of some previous studies conducted in different parts of the world (see Table 9-6b). The result reported here is in the middle ranking compared with previous studies. For example, 94% of New Zealand companies offered a company background profile (Oyelere et al, 2003), 96% of Malaysian companies did so (Khadaroo, 2005), 41% of the IASC sample (1999) and 64% of the (2000) FASB sample. This comparison indicates that Saudi public companies seem to be realizing the importance of providing such information to their investors and other stockholders.

Fifth, more than half of the Saudi public companies included in this study offered a press release section (61%). For the banking sector the percentage offering press releases online (100%) was higher than for the other sectors: 64% industrial, 60% agricultural, 56% cement and 25% services. Most of the previous studies (see Table 9-6b and Chapter 5) found that press releases were a common feature on the homepages; the result found here (61%) is similar to the finding of Xiao et al (2004) of 60% for Chinese companies and 60% for the FASB sample (2000). However, most of the previous studies reported in the literature are not closely comparable with the present result: some studies in other parts of the world have targeted only the largest companies and have included the developed world. For example, Abdelsalam et al's study (2006) found that about 99% of their sample provided a press release online.

The present study found that items for shareholders and related information are rarely disclosed by Saudi public companies. These items are: offers of financial information in alternative currencies (1%), offers of exchange details or a link to a currency converter site (1%), agenda and notice of the annual shareholders' meeting (5%), details regarding major shareholdings (10%) and an investors' glossary to explain difficult financial terminology (11%).

Out of the 11% of companies which provided investor glossary information, 40% were in the banking sector, 10% in the industrial and cement sectors and no agricultural companies offered such information. To the best of the researcher's knowledge, Abdelsalam et al (2006) is the only study to examine the provision online of a glossary of financial terminology for investors and it is found that only 21 percent of their sample offered such a thing (see Table 9-6b). Abdelsalam et al's study (2006) included some developed economies.

A minority of the companies (10%) included in this survey offered information regarding major shareholdings. As shown in Table (9-6a), more service companies (17%) provided information regarding major shareholdings than in the four other sectors. Industry followed, with 10%. None of the other sectors (banking, cement and agriculture) offered information regarding major shareholdings. The previous research reported in the literature are not closely comparable with the present study, because some studies in other parts of the world have targeted only the largest companies and have taken in the developed world (see Table 9-6b). For example, Marstona and Polei's study (2004) found that about 70% of German companies provided online information regarding major shareholdings, while the percentage was 49 % for Chinese companies (Xiao et al, 2004) and 93 % for the sample of Abdelsalam et al (2006). This comparison indicates that Saudi public companies need to consider the importance of providing such information to their investors and other stockholders.

Tables (9-6a) also revealed that only 5% of the companies included in this survey provided an agenda and notice of the annual shareholders' meeting. It comes as no surprise that the number of firms' websites which could be

considered as offering such information is quite low. Presumably their logic was that they wanted to hide such information from competitors. Only two sectors offered such information (7% for industrial and 7% for services) and no company in the three other sectors offered such information. A comparison of the result of this study with previous studies reveals that Marston and Polei (2004) reported that 84% of the top 50 DAX Germany companies offered online an agenda and notice of the annual shareholders' meeting (see Table 9-6b).

Moreover, as shown in Table 9-6a, only 1 percent of the companies (one company in the industrial sector) included in this survey provided financial information in alternative currencies or offered exchange details or a link to a currency converter site. Again, Table (9-6b) compares the findings of this study with those of Abdelsalam et al (2006), who reported that 10% of their sample provided financial information online in alternative currencies and 8% percent provide exchange details or a link to a currency converter site.

In summary, regarding issues of general content, as reflected in Table 9-6a, the study findings reveal several areas where on average the range of general content items is problematic. In particular, what needs attention are items related to shareholders' information, such as financial information in alternative currencies (1%), offers of exchange details or a link to a currency converter site (1%), or the agenda and notice of the annual shareholders' meeting. The study findings, moreover, clearly reveal that companies are not responding sufficiently to the needs of investors and other users regarding the disclosure of important general information. For example, of the 30 items which were deemed to support website general content, only 6 items scored 50% or above. Also, general content disclosure is likely to be greater in banking companies because of their expertise with the Internet and financial system. These companies have an incentive to demonstrate that they are leaders in the use of technology. Further research in this area may reveal more reasons for companies' low levels of online disclosure. However, the results slightly change if these items are re-examined on the basis of the applicable companies only. The next paragraph will shed some light on general content disclosure on this basis.

Table 9.6a: General Content Items (user need) Checklist Items

General Content items	Industrial classification											
	All (113)		Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)	
No	%	No	%	No	%	No	%	No	%	No	%	
1. Provides Balance sheet	49	43	10	100	20	48	5	56	11	26	3	30
2. Provides Income statement	50	44	10	100	21	50	5	56	11	26	3	30
3. Provides statement of cash flow	46	41	10	100	20	48	3	33	10	24	3	30
4. Management report	44	39	9	90	19	45	2	22	10	24	4	40
5. Company background profile	90	80	10	100	37	88	6	67	29	69	8	80
6. Products and services profile	91	81	10	100	37	88	6	67	30	71	8	80
7. Displays financial information in alternative GAAP	18	16	0	0	5	12	1	11	10	24	2	20
8. Displays financial information in alternative currencies	1	1	0	0	1	2	0	0	0	0	0	0
9. Offers exchange or link to currency converter site	1	1	0	0	1	2	0	0	0	0	0	0
10. Provides information about advantages of holding stock	35	31	8	80	10	24	1	11	13	31	3	30
11. Includes details regarding major shareholdings	11	10	0	0	4	10	0	0	7	17	0	0
12. Provides information on how to buy stock (shares)	32	28	9	90	12	29	1	11	9	21	1	10
13. Displays market(s) where company stock/shares traded	45	40	9	90	18	43	3	33	10	24	5	50
14. Provides stock/share symbol/code	31	27	8	80	10	24	1	11	10	24	2	20
15. Provides interactive stock/share chart	17	15	7	70	4	10	0	0	5	12	1	10
16. Provides today's high/low stock/share price or percentage of change in price	26	23	9	90	8	19	0	0	7	17	2	20

Table 9.6a, Continued

General Content items	Industrial classification													
	All (113)		Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)			
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
17. Annual shareholders' meeting agenda and notice	6	5	0	0	3	7	0	0	3	7	0	0	0	0
18. Voting results of AGM	36	32	1	10	12	29	2	22	19	45	2	20	2	20
19. Online share register facilities OR Link	24	21	9	90	7	17	2	22	6	14	0	0	0	0
20. Change of shareholder address OR link	24	21	9	90	8	19	2	22	5	12	0	0	0	0
21. Online stock transfer OR link	20	18	9	90	5	12	2	22	4	10	0	0	0	0
22. Includes corporate governance section	41	36	10	100	10	24	0	0	20	48	1	10	1	10
23. Provides link to Investor Relations section	66	58	10	100	26	62	6	67	18	43	6	60	6	60
24. Investor Relations link includes word Investor or Financials or similar	53	47	10	100	23	55	6	67	10	24	4	40	4	40
25. Provides press releases	69	61	10	100	27	64	5	56	21	50	6	60	6	60
26. Provides internal Search feature	35	31	7	70	17	40	1	11	7	17	3	30	3	30
27. Includes online user feedback contact us / investor request information	93	82	10	100	36	86	7	78	32	76	8	80	8	80
28. Includes site map / directory	91	81	10	100	36	86	7	78	30	71	8	80	8	80
29. Contains investor glossary with explanation of difficult terminology	12	11	4	40	4	10	0	0	4	10	0	0	0	0
30. Displays Investor Frequently Asked Questions (FAQs)	24	21	8	80	8	19	0	0	7	17	1	10	1	10

9-5-1-2 General content items disclosed based on users' needs in the applicable companies:

Based on the applicable companies, Table 9-6c shows that the five most frequently disclosed items of general information items are: a user feedback facility (98%), products and services profile (96%), site map (96%), company background profile (95%) and an investor relations link including the word 'investor' or 'financial' or something similar (80%). Examining Table 9-6c again reveals that the five least frequently disclosed items are: displays of financial information in alternative currencies (1%), offers of exchange details or a link to a currency converter site (1%), agenda and notice of the annual shareholders' meeting (8%), details regarding major shareholdings (12%) and an investors' glossary (13%). As shown in Table 9-6c, on the basis of applicability almost half the items deemed to support the website's general content scored 50% or above.

From the discussion in the previous chapter (8), the users of online reporting believed that the following three items were the most important items to disclose on a company's corporate website:

1. IFR in multiple currencies
2. A table of contents
3. Email facilities to provide feedback and/or request further information.

Table 9-6c shows (based on applicable companies) that only one percent of the total sample disclosed IFR in multiple currencies. Most (96%) of the companies offered a table of contents and 98% offered email facilities to provide feedback and/or request further information. Based on this result, in general, the companies did disclose some of the general content information perceived as important by the users.

Furthermore, from the discussion in the previous chapter, respondents were asked what parts of a company's website interested them most and which part of the company's site was most attractive. As shown in Chapter 8, 25% of

respondents stated that financial information is the most interesting part of a company's website to them, 22% chose product and service information, 17% chose investors' information, 16% chose a management report and 10% information about a company's background. These results are not surprising since Saudi public companies disclosed these items of information as follows: 45% of the sample offered financial information, 96% offered product and service information, 60% offered an investors' information section, only 40% offered a management report but 80% offered a section on the company background. The following sections show in more detail how companies deliver credibility (57 items) information via the Internet.

9-5-2 Credibility Information:

The second part of the disclosure index consists of 57 items dealing with credibility information (see Chapters 5 and 7). Primer (2003) defines credibility as providing transparent, timely, full and fair disclosure. Mercer et al (2004) defines disclosure credibility as investors' perceptions of the believability of a particular disclosure. Colman (2004) reported that, in order to enhance the credibility of financial reporting, companies should provide more information about governance practices and structure and regulatory compliance. Nielsen (2001) mentioned that a credible corporate website has links to external sources or articles from independent newspapers and magazines. Examples of credibility information examined in the present study are: audited and audit related information (e.g. audited statements, an audit firm's logo and link from an audited statement to external or internal information), corporate governance information (e.g. a link to a regulatory database, a link to a security exchange website and a statement about the internal audit committee, director and executives), timely information (e.g. the most recent annual report and most recent interim report). The study findings are reported in Tables 9-7a (1, 2 and 3) '9-7b (1, 2 and 3) and 9-7c (1,2' and 3) (9-7b and 9-7c in appendix 8). Table 9-7.a shows the percentage of companies which include each item based on the total sample, Table 9-7b compares the study findings with previous studies and Table 9-7c shows the percentage of companies which include each item, based on the applicable companies only.

9-5-2-1 Credibility items disclosed among all the companies, based on users' need:

Table 9-7a (1, 2 and 3) overall, shows that the five most frequently disclosed items of credibility information were: a chairman's message (39%), a full annual report (35%), audited financial statements accompanied by an audit report (35%), hyperlink(s) between audited financial statements and external unaudited websites or sections of the company's website (35% did not offer these) and hyperlinks between an audit report and information outside audited financial statements (35% did not offer these).

At the other end of the spectrum, Table 9-7 (1, 2 and 3) reveals that performance was zero for the following 5 items deemed to support website credibility: clearly distinguishing summary information which should not be construed as part of the full annual report, the audit firm's logo hyperlinked to the auditor's website, facilities for email or/online requests, information about when to expect a response, explanation of privacy policy if personal information is required to register for email alerts and an indication of how frequently financial information was updated. The following sections discuss some of these items in more detail and compare the study results with previous research. The section divides into three themes: audit related information, corporate governance information and timely information. Each of these themes starts with the most common items first and more rarely disclosed items next. It should be noted that the percentages provide here are based on the total sample.

9.5.2.1.1 Audited and audit related information:

Examples of auditing and auditing information examined in this study are: auditor report, audit reports' highlighting which jurisdiction is relevant, a scanned handwritten signature on the audit report and a warning message when entering/leaving the audited annual report. The following paragraphs discuss in more detail some of the most common audited and audit related items disclosed by Saudi public companies and compare the study results with those of previous studies.

First, the most frequently reported item in this study is the disclosure of the full annual report. The study found that 35% of Saudi public companies offered this online. The results differed across sectors (see Table 9-7a1). The banking sector more often (90%) offered a full annual report through their corporate websites than agricultural sector (20%). The previous studies reported in the literature are not closely comparable with the present study, for some studies in other parts of the world have targeted only the largest companies and have included the developed world. For example, Abdelsalam et al's survey (2006) reported that 98% of their sample offered such information.

The second most frequently disclosed item is the financial audit. As shown in Tables 9-7a1, on average, 35 percent of the companies covered in this study provided audited financial statements accompanied by an audit report. Again, more banks (88%) provided it than firms in the four other sectors. Industry, cement, service and agriculture followed in that order, with 38%, 33%, 26% and 10% respectively. A comparison of the result of this study with previous studies (see Table 9-7b1) revealed that the proportion presenting an auditor's report in developed countries ranged from 23% in North America (Trites et al, 1999) to 100% in the UK (Abdelsalam et al, 2006). While in developing countries the percentage ranged from 3% in Saudi Arabia (Abu Al-Azm, 2001) to 50% in Malaysia (Khadaroo, 2005). These comparisons make it clear that the quality of Saudi websites has improved in this respect over the years.

Table 9-7.a.1 shows that 39 (35%) of the companies covered in this study do not offer any hyperlinks between the audit report and any links either outside audited financial statements or to external unaudited websites or sections of company website. These latter two items were considered the third and fourth most frequently items disclosed of this category. The banking sector (80%) often provided these features and they were less common in the industrial, cement, services and agricultural corporations (38%, 33%, 26 and 10% respectively). In 2006, Abdelsalam et al found 98% of their sample avoided hyperlinks between audited financial statements and external unaudited websites or sections of a company website and 98% of their sample avoided any hyperlinks between the audit report and information outside audited financial statements (see table 9-7b1).

The fifth most frequently disclosed item is an easy way for users to distinguish audited information from not audited. The Investor Relations Society (2006) requested that the auditor's opinion should be clearly distinguished from unaudited information. Supplementary information should also be provided in an easily to understandable way which shows that it is not part of the annual report. In this regard, Tables 9-7.a.1 again reported that about 34% of the companies covered in this study used the same background and/or borders as those used in the audited financial statements. The results are, however, not

homogeneous. For example, in terms of the audit report background, the banking sectors often, used a consistent background and/or borders for the audit report and the audited financial statements (80%), while this feature was not as common in the agricultural sector (10%). This feature has been subjected to research by several writers (see Chapter 5 and Table 9-7b1). For example, FASB (2000) found that 29% used coloured or graphic borders and 21% used background colours or graphics. In Germany, Marstona and Polei (2004) revealed that only 5 percent used clear boundaries between the annual report (audited) and other information. Abdelsalam et al (2006) found that 98 percent of their sample used audit report backgrounds and/or borders consistent with those used in the audited financial statements but 93 percent clearly labelled each page of audited financial statements "AUDITED".

Finally, the results concerning auditors' signature (29%) again differed across sectors (see Table 9-7.a.1). The results in 80% of banking companies, 33% of Industrial companies, 21% of service companies, 11% of cement companies and 10% of agricultural companies included a scanned signature to the audit. Almost the same result emerged for the inclusion of an audit firm's logo on the audit report, as noted by Khadaroo (2005). He found that 21 percent of Malaysian companies (Khadaroo, 2005) provided a scanned auditor's signature.

As reflected in Table 9-7a1, the study findings reveal several areas where on average the credibility of corporate websites is problematic (in particular, audited and audit related information). 1% or less of the sample companies provided information deemed to augment website credibility (only one company in the service sector) such as: an intermediate warning message when leaving the audited annual report (1%), a statement in the audit report that it does/does not provide an opinion on any other information hyperlinked to the audited financial report (1%) and including within the audit report a disclaimer or warning pertaining to any other part of the website (1%). Moreover, it has been noted that some of the companies included in this survey offered such information during the time when they were raising capital (in order to attract and raise finance). Nevertheless, the result of this study, smaller than Khadaroo's (2005) and Al-Abdelsalam et al's (2006), was that none of their

samples offered such information. In contrast, Smith and Peppard (2005) found that 56 percent of Irish companies offer a clear indication that users are moving to another part of the corporate website or to third party sites (see table 9-7b1).

Moreover, Table 9-7a1 reveals that performance was zero (for items deemed to support website credibility) on providing the following information: distinguishing summary information from full annual reports and an audit firm's logo hyperlinked to the auditor's website. Empirical studies again support these results. Abdelsalam et al (2006) found that none of their samples offered such information (see table 9-7b1). Based on the above findings, the Saudi Organisation for Certified Public Accountants and Saudi Financial Services Authority should consider additional action to enhance the credibility of financial disclosure; not only this, but also the sample companies included in this survey need to enhance users' perceptions of the credibility of information provided on their websites.

Table 9.7.a.1: Credibility Items (Audited and audit related information)

Credibility items		Industrial classification													
		All		Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)			
		No	%	No	%	No	%	No	%	No	%	No	%	No	%
31	Provides full annual report (not summary report)	40	35	9	90	16	38	3	33	10	24	2	20		
32	If full annual report not available, information provided clearly marked "summary information"	0	0	0	0	0	0	0	0	0	0	0	0		
33	Includes statement explaining control issues related to approval of financial information on Website and Website security	33	29	9	90	14	33	1	11	9	21	0	0		
34	Provides quarterly report (as opposed to semi-annual only)	15	13	10	100	2	5	3	33	0	0	0	0		
35	Displays audited financial statements accompanied by audit report	39	35	8	80	16	38	3	33	11	26	1	10		
36	Audit report highlights which jurisdiction's GAAP and/or GAAS are/is relevant	39	35	8	80	16	38	3	33	11	26	1	10		
37	Audit firm logo included on audit report	33	29	8	80	14	33	1	11	9	21	1	10		
38	Displays intermediate warning message when entering/leaving audited annual report [NA for PDF Files, but applicable for HTML files]	1	1	0	0	0	0	0	0	1	2	0	0		
39	Audit firm logo hyperlinked to auditor's Website	0	0	0	0	0	0	0	0	0	0	0	0		
40	Audit report includes statement that it does/does not provide opinion on any other information hyperlinked to/from audited financial report	1	1	0	0	0	0	0	0	1	2	0	0		
41	Audit report includes disclaimer or specific/general warning pertaining to any part of Website outside audited financial statements	1	1	0	0	0	0	0	0	1	2	0	0		
42	Provides hyperlink(s) from auditor's report to/from element of audited financial statements	1	1	0	0	0	0	0	0	1	2	0	0		
43	No Hyperlink(s) from/to audited financial statements to external unaudited Websites or sections of company Website	39	35	8	80	16	38	3	33	11	26	1	10		
44	No hyperlinks to/from audit report to information outside audited financial statements	39	35	8	80	16	38	3	33	11	26	1	10		
45	Audit report background and /or use of borders consistent with those used in audited financial statements	38	34	8	80	16	38	2	22	11	26	1	10		
46	Includes scanned handwritten audit report signature (i.e. not typed)	33	29	8	80	14	33	1	11	9	21	1	10		

9.5.2.1.2 Corporate governance information:

Example of corporate governance information examined in this study are: a company's contact details, a link to a regulatory database, a link to security exchange websites and a statement about the internal audit committee, director and executives. Table 9-7.a.2 clearly shows that companies do not sufficiently respond to the needs of investors and other users regarding the provision of corporate governance information. The five most frequently disclosed corporate governance items were: the Email address of an Investor Relations department (69%), postal address (61%), phone number (61%), a financial snapshot section (overview of the company's history of performance) (65%), employment profile (56%), industry statistics or data profile (55%), corporate governance policies and charters of the main board committees (51%). The following paragraphs discuss in more detail some of the most common items of corporate governance information disclosed by Saudi public companies and compare the study results with the previous research.

First, the Investor Relations Society (IR, 2006) asserted that a good website should provide online company contact details, including an e-mail address, telephone number and postal address for the investor relations officer. Table 9-7.a.2 reflects that 69% of the sample provides the company's E-mail address. One hundred percent of banking companies and 89 percent of cement companies offered company e-mail addresses, whereas 71% of the industrial companies, 60% of the service companies and 50% of the agricultural companies offered such information. The results found here (69%) are very close to the findings of Trites et al in 1999 (67%) and of Geerlings et al in 2003, who found that 62% of Belgian companies offered an e-mail address (see table 9-7b.2). This contradicts other studies, such as: Gowthorpe's (2004), which found 95%, Marstona and Polei's (2004), which found 100%, Abdelsalam et al's (2006) which found 82%, Xiao et al's (2004) which found 15% and Khadaroo's (2005) which found 36% offering such information.

Second, Table 9-7.a.2 reveals that 61% of the sample provides a company postal address. 100% of the banking sector provides this, 89% of the cement sector, 64% of the industrial, 48% of the service sector and 40% of the

agricultural sector. Marstona and Polei (2004) found that 80% of German companies and Abdelsalam et al (2006) found that 86% of UK companies offered a company's postal address. In developing countries, offers of a postal address ranged from 15 percent in China (Xiao et al, 2004) to 38 percent in Malaysia (Khadaroo, 2005).

Third, out of 61% companies offering a company phone number, 100% of the banking sector did, 89% of the cement sector, 64% of the industrial, 48% of the services sector and 40% of the agricultural sector. Previous studies found that providing the investor relations phone number ranges from 64 percent of firms in North America (Trites et al, 1999) to 98 percent in Germany (Marstona and Polei, 2004). In developing countries, the range is from 16 percent in China (Xiao et al, 2004) to 41 percent in Malaysia (Khadaroo, 2005). The result for company contact details indicates that Saudi public companies seem to be realizing the importance of providing such information to their investors and other stockholders.

Fourth, as shown in Table 9-7.a.2, in terms of disclosing employee information (a company was considered as providing an employee profile if it made available information about the number of employees, their age, education, gender, Saudisation programme and employee compensations and benefits), more banking sector firms (100%) provided employee information than firms in the four other sectors. Cement and industry followed (78% and 57% respectively) but disclosing employee information is less common in the service and agriculture sectors (43% and 40% respectively). Employment profile disclosure was examined by several studies: Brennan and Hourigan (1998) found that 18% of Irish companies provided an employment profile on their websites. A lower result (12%) was reported by Oyelere et al (2003), while 11% was confirmed by Marstona and Polei (2004) and 32% by FASB's sample (2000).

Fifth, examining Table 9-7.a.2 again shows that 55% of the sample provided industry statistics or a data profile. The results are not homogeneous. While 100% of the banking corporation offered industry statistics or a data profile,

fewer data were provided by agricultural, cement, industrial and service corporations (60%, 56%, 55% and 43%, respectively). A company was considered to provide an industry statistics profile if it made available information about a list of competitors/competitor profiles, analysis of the company's principal markets and future trends as appropriate, information about some leaders in the same sector and discussions of current sectoral challenges. The disclosure of industry statistics or data profile online was examined by several studies. The FASB (2000), for example, reported that only 13% of their sample offered industry statistics and a lower result (3%) was found by Allam (2006). From this result, it can be concluded that Saudi companies provide more features than many to make a website more attractive for users.

Finally, the chairman's message is supplied by 39 percent of the Saudi companies in the survey. The result applied to 90% of banking companies, 50% of agricultural companies, 45% of industrial companies, 26% of the service companies and none of the cement companies. A comparison of this study result with previous studies (see Table 9-7b.2) revealed that 30% of the IASC (1999) sample, 74% of the FASB (2000) sample, above half of Malaysian companies (Khadaroo, 2005) and only 21 percent of UK companies (Abdelsalam et al 2006) offered a chairman's message. This indicates that, compared with those in other countries, Saudi public companies are realizing the importance of providing such information to their investors and other stockholders.

As shown in Table 9-7.a.2, a surprisingly low number of companies provided/satisfied a key checklist of items, such as hyperlinks to analysts'/(brokers') websites and/or analysts' (brokers') reports on the company (1%), names and details of analysts following the company (2%), policy on the remuneration of directors and executives (3%), executive information (education, 4% and experience, 3%), names and details of its Shariaa committee (5%), information about directors (education, 8% and experience, 7%) and a proxy statement about the internal audit committee members (10%). Examining Table 9-7.a.2 again shows that more bank companies offered such

information and that most of the cement and agricultural companies did not. The previous studies reported in the literature are not closely comparable with the present study; some studies in other parts of the world have targeted only the largest companies and have included developed economies. For example, In terms of an internal audit committee profile, the results found here (10%) are lower than the findings of previous studies. 42% of the Irish companies presented details about audit committees (Smith and Peppard, 2005) and 32% were found in Abdelsalam et al's sample (2006). The same was true for directors' and executives' profiles: Marstona and Polei (2004) found that 55% of German companies presented directors' biographies, while 85 percent of Abdelsalam et al's sample (2006) displayed directors' and executives' experience, 54 percent offered charters of main board committees, 48 percent offered a statement of policy on the remuneration of directors and executives and almost 36 percent offered information on executives' and directors' education. The FASB (2000) reported that only 29% offered full biographies of boards of directors and officers' details. In terms of analysts following the company, FASB (2000) found that 16 percent of their sample provided lists of analysts, links to analysts who followed the company or analysts' reports; 15 percent of US companies (Ettredge et al, 2001), more than a third (34%) of German companies (Marstona and Polei, 2004) and 45 percent of Abdelsalam et al's sample (2006) offered online the names of analysts following the company.

Table 9.7.a.2: Credibility Items (Corporate governance information)

Credibility items		Industrial classification																	
		All (113)		Banking (10)			Indus. (42)			Cement (9)			Services (42)			Agric. (10)			
				No		%		No		%		No		%		No		%	
No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%		
47	Provides link(s) to relevant stock exchange(s) websites (TADAWUL website)	38	34	9	90	13	31	2	22	9	21	5	50						
48	Contains link to TADAWUL database	33	29	9	90	11	26	2	22	9	21	2	20						
49	Enables user to compare company stock with peers and industry leaders	8	7	6	60	1	2	0	0	1	2	0	0						
50	Provides dividend history	19	17	7	70	8	19	1	11	3	7	0	0						
51	Provides hyperlinks to analysts' /(brokers) websites and/or analyst's (brokers') reports on company	1	1	0	0	0	0	0	0	1	2	0	0						
52	Displays proxy statement about internal audit committee members (e.g. education & experience)	11	10	3	30	3	7	0	0	5	12	0	0						
53	Provides chairman's message	44	39	9	90	19	45	0	0	11	26	5	50						
54	Displays corporate governance policies and/or charters of main board committees	58	51	10	100	21	50	6	67	14	33	7	70						
55	Displays information on director education	9	8	1	10	5	12	0	0	3	7	0	0						
56	Displays director experience	8	7	0	0	5	12	0	0	3	7	0	0						
57	Displays information on executive education	4	4	0	0	1	2	0	0	3	7	0	0						
58	Displays executive experience	3	3	0	0	1	2	0	0	2	5	0	0						
59	Provides policy on remuneration of directors and executives	3	3	0	0	0	0	0	0	2	5	1	10						
60	Displays names and details of Shari'aa committee	6	5	6	60	0	0	0	0	0	0	0	0						
61	Displays names and details of analysts following company	2	2	0	0	0	0	0	0	2	5	0	0						
62	Displays company's code of ethics	30	27	9	90	8	19	1	11	12	29	0	0						
63	Employment profile	63	56	10	100	24	57	7	78	18	43	4	40						
64	Industry statistics or data profile	62	55	10	100	23	55	5	56	18	43	6	60						

Table 9.7.a.2, Continued

Credibility items		Industrial classification											
		All		Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)	
		No	%	No	%	No	%	No	%	No	%	No	%
65	Provides financial snapshot section (overview of company's history of performance)	73	65	10	100	28	67	4	44	24	57	7	70
66	Includes social responsibility and/or environmental section	39	35	10	100	13	31	6	67	7	17	3	30
67	Provides web casts	1	1	0	0	1	2	0	0	0	0	0	0
68	Provides link to Press Releases by independent information provider (e.g. RNS/analysts/brokers news)	35	31	10	100	13	31	0	0	9	21	3	30
69	Provides E-mail address to Investor Relations department	78	69	10	100	30	71	8	89	25	60	5	50
70	Provides Investor Relations postal address	69	61	10	100	27	64	8	89	20	48	4	40
71	Provides Investor Relations phone number	69	61	10	100	27	64	8	89	20	48	4	40
72	For Email or/online requests, user informed when to expect response	0	0	0	0	0	0	0	0	0	0	0	0
73	Provides feature to sign up for Email alerts regarding press releases / newsletter	17	15	1	10	10	24	0	0	3	7	3	30
74	If personal information required to register for email alerts, privacy policy explained	0	0	0	0	0	0	0	0	0	0	0	0

9.5.2.1.3 Timely information:

Debreceny and Rahman (2005) mentioned that outdated information is irrelevant and could lead to incorrect decisions. For corporate information to be relevant, it must be available to decision-makers before it loses its capacity to influence their decisions (Barton, 1982 and Solomons 1989). Moreover, Abdelsalam et al (2006) mentioned that one of the main elements in the credibility of Internet financial reporting is its timeliness. The Internet offers the opportunity to make very recent company data available, for example, by including monthly or weekly operating data. This information could update the interim statements and annual reports on a continuous basis. However, it has been mentioned that the timeliness of Internet financial reporting has rarely been addressed in previous research (Abdelsalam et al, 2006). Nevertheless, the following paragraphs discuss in more detail some of the most common examples of timely information disclosed by Saudi public companies and compare the study results with previous research. Examples of timely information examined in this study are: most recent annual report, most recent interim report, calendar of future financial events and latest (today's) stock/share price.

From Table 9-7.a.3, it can be observed that, on a more positive note, to improve credibility (by timely information), more than 35% of the companies provide historical financial information (other than stock prices), latest annual reports (posted within three months of the year's end) (34%), latest share price (22%), date of the last site update as a whole (20%) and a monthly newsletter/market review (15%). By sector, overall, more banks provided timely information than did the four other sectors

First, most frequently, 35% of the companies offered historical financial information. 100% of the banking sector provides such information, 43% of industrial, 33% of cement, 20% of agriculture and 17% of service companies also do this. Historical financial information is supplied by 39 percent of the US sample (Ettredge et al 2001), by 40 percent of New Zealand's (Oyelere et al 2003), by 58 percent of Ireland's (Smith and Peppard, 2005), by 54 percent of the UK's (Gowthorpe, 2004), by 86 percent of Germany's and by 72 percent of

China's (Xiao et al 2004). Most of the previous studies did not differentiate between historical financial information and stock price historical information.

Second, the latest annual report (posted within three months of the year's end) was offered by 34% of Saudi public companies. 90% of the banking sector provided such information, 36% of industrial, 33% of cement, 24% of service and 10% of agricultural companies provided such information. Abdelsalam et al (2006) found that 92% of their sample offered the latest annual report. In the light of this finding, sample companies included in this survey need to increase the speed of publishing their annual report online.

Third, 22% of the sample included in this survey offered the latest share price. By sector, the results were offered by 90% of banking companies, 30% of agricultural companies, 19% of industrial companies, 12% of the service companies and none of the cement companies. The latest share price was a less common feature on the homepages in Spain (2%) (Gowthorpe and Amat, 1999), whereas the figure was 15% for the US (Ettredge et al, 2001) and 19% for China (Xiao et al, 2004). Marstona and Polei (2004) reported that 93% of their sample provided the latest share price, 88% did so in Smith and Peppard's sample (2005) and 93% in Abdelsalam et al's (2006).

Fourth, 20% of Saudi companies clearly presented the date of the last site update, as a whole. While 40% of the banking corporation offered the date of last site updating, these data were provided less often by agricultural, industrial and service firms (30%, 21% and 17% respectively) and none of cement corporations. Previous studies found that 9% of Marstona and Polei's sample (2004) provide the date of the last site update as a whole and only 2% was reported by Xiao et al (2004) and 7% by Abdelsalam et al (2006).

Fifth, Beattie and Pratt (2001) reported that 60% of respondents to their survey agreed to updating business reporting on a monthly basis. This study examined Saudi companies in this regard and found that 15% of the sample included in this survey offered a monthly newsletter/market review. By sector, this result was offered by 60% of banking companies, 14% of industrial companies, 10%

of agricultural companies, 10% of service companies and none of the cement companies. No empirical study has examined this feature before.

However a failure to address the need for timely information on the website is evidenced by the low incidence of disclosure of such items as whether an immediate response to emails or other online information will be forthcoming (0%), how frequently financial information is updated (0%), webcasts (1%), a calendar of future financial events (4%), the time when the stock price was last updated (4%), a weekly newsletter/market review (6%) and the latest interim report (13%). In the light of these findings, as reflected in Table 9-7.a.3, the results clearly show that the credibility of corporate websites in Saudi Arabia is problematic. The reason for this is perhaps that most firms fear that increased transparency through more frequent reports could have negative consequences for their competitive position (Marston and Polei, 2004). The following paragraphs discuss in more detail some of these items.

Only 4 % of Saudi companies offered a calendar of future financial events. This finding is not consistent across all sectors, however. A calendar of future financial events was supplied by 10% of the bank sector and 5% of the industrial and service companies. None of the cement and agriculture corporations offered such information. Nevertheless, the result is totally different from the findings of some other studies around the world. Examples are Ettredge et al (2001), who found that 12% of their sample offered such information, 16% for Ettredge et al's sample (2002), 32% for Gowthorpe's sample (2004) and 78% for that of Abdelsalam et al (2006). In the light of these findings, it behooves Saudi regulators to explore why Saudi public companies are refraining from more extensive communication of Internet financial reporting to the investing public and provide so little future information.

In addition, about 4% of companies included in this survey showed online the last time their offered stock price was updated. Only two sectors offered such information: the industrial and services sectors (5% for each). The result is totally different from that of Abdelsalam et al (2006), who found that 82% of their sample showed the time when their share price was last updated. It should be

mentioned that Abdelsalam et al's study (2006) study targeted the largest companies and included the developed world.

Another failure is not offering the most recent interim report. Only 13% of the sample included in this survey offered this. By sector, 100% of banks provided such information, 33% of cement firms, 5% of industrial and none of the service and agriculture firms. This result is totally different from the findings of some others: Flynn and Gowthorpe (1997), for example, found that 25% of their sample provided an interim report; the figure was 20% for Gowthorpe and Amat (1999), 46% for Fisher et al (2004), 25% for Xiao et al (2004 and 34% for Khadaroo (2005). In the light of this finding, more investigation is required to find the reason behind such failure to disclose.

In summary, the preceding three sub-sections have presented the Saudi corporation's pattern of disclosure of a selection of online credibility information. Generally, the corporate disclosure of this information is relatively low. In particular, it is low for items related to audited and audited related information such as an intermediate warning message when leaving the audited annual report (1%), a statement in the audit report that it does/does not provide an opinion on any other information hyperlinked to/from the audited financial report (1%) and including within the audit report a disclaimer or warning pertaining to any part of the website (1%). Among 57 items which are deemed to support website credibility, only 6 items scored 50% or above. Most of the variability in the online information credibility, however, is difficult to interpret without further investigation. In industrial classification, the results are not homogeneous, again more bank sector companies provided credibility online information than other 4 sectors. The next section attempts to shed some light on the credibility disclosure figures based on the applicable companies.

Table 9.7.a.3: Credibility Items (Timely information)

Credibility items												
	All (113)		Industrial classification									
			Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)	
	No	%	No	%	No	%	No	%	No	%	No	%
75	23	20	4	40	9	21	0	0	7	17	3	30
76	0	0	0	0	0	0	0	0	0	0	0	0
77	38	34	9	90	15	36	3	33	10	24	1	10
78	15	13	10	100	2	5	3	33	0	0	0	0
79	5	4	1	10	2	5	0	0	2	5	0	0
80	25	22	9	90	8	19	0	0	5	12	3	30
81	4	4	0	0	2	5	0	0	2	5	0	0
82	15	13	6	60	5	12	0	0	4	10	0	0
83	15	13	6	60	5	12	0	0	4	10	0	0
84	17	15	6	60	6	14	0	0	4	10	1	10
85	7	6	4	40	1	2	0	0	2	5	0	0
86	40	35	10	100	18	43	3	33	7	17	2	20

9-5-2-2 Credibility items disclosed based on users' needs in the applicable companies:

Based on the number of applicable companies, Table 9-7c (1, 2 and 3) clearly shows that, in general, the credibility of corporate websites is reasonable. For example, most of the companies avoid hyperlinks between the audited financial statements and external non-audited websites or sections of the company website (100%), avoid hyperlinks to/from the audit report to information outside the audited financial statements (100%), use a consistent background and/or borders for the audit report and the audited financial statements (97%), include a scanned handwritten audit report signature (85%), include the audit firm logo on the audit report (85%) and provide contact details for investor relations (E-mail, 82%, postal address, 73% and phone number, 73%). Examining Table 9-7c again, however, reveals that companies are not sufficiently responsive to investors' and other users' needs regarding the disclosure of timely information.

In terms of distinguishing between audited and unaudited information, previous studies revealed that links from audited reporting to other information are problematic. Hodge (2001), for example, examined investors' perceptions of hyperlinking inside the audit report and found that investors can misclassify unaudited information as audited. Pike and Lanis (2003) conducted a similar study to Hodge's (2001) and reported a similar result. Thus, the IR (2006) requested that auditor's opinions should be clearly differentiated from what is not audited. Nevertheless, Table 9-7b shows that all the companies in the sample providing no link from the audited reporting to any other information. Moreover, most of the companies used consistent background and/or borders for the audit report and the audited financial statements (97%).

As may be recalled from the discussion in the previous chapter, the following features were rated the most important in companies' corporate websites, in terms of credibility:

1. Hyperlinks to the auditor's home page,
2. Updating IFR weekly,
3. Providing the date of last change,
4. Updating IFR monthly,
5. Updating IFR quarterly and
6. A clear indication when users leave the IFR.

Of the items which are perceived by external users as the most important items to disclose in companies' corporate websites, Saudi public companies showed a low level of disclosure. Table 9-7c shows (based on applicable companies) that virtually no company disclosed hyperlinks to the auditor's home page, only 6% of the sample offered a clear indication of when users leave the IFR and 7% of the samples updated the IFR (newsletter/market review) weekly or monthly. Very few companies, however, disclosed the IFR (newsletter/market review) quarterly (16%) and 24% offered a clear indication of when users leave the IFR. Based on the above findings, it would seem that the sample companies included in this survey are not responsive to users' information needs. The next section deals with usability items.

9-5-3 Usability Information:

The third part of the disclosure index consists of 81 items dealing with usability features, for example, general usability information (e.g. a common URL address audited statement, standard font sizes and high contrast between foreground and background colours), visibility items (e.g. the visibility of internal search icon, visibility of corporate governance and visibility of the time of site updating) and presentation items (information in PDF format, HTML format, downloadable spreadsheet format and WORD format). The usability items were selected on the basis of the following definition of usability and prior literature (see Chapters 5 and 7). Sullivan (1996) considers a website usable if it is user-friendly. The prime requirement of any good website is that it should be easy to navigate and intuitive to use (IR, 2006). Abdelsalam et al (2006), for example, mentioned that usability refers to ease of use – how easy is it to navigate the site and locate information. Jones (2002) also indicated that the objective of online reporting is to provide information in simple ways to the users. However, Dull et al (2003) mentioned that while much research has been conducted into the accounting content of financial statements, limited research has been conducted in the area of presentation (usability of information). The three tables 9-8.a (1, 2 and 3)'9-8b (1, 2 and 3) and 9-8c (1, 2 and 3) (Tables 9-8b and 9-8c in appendix 9) show the present study findings: Table 9-8.a shows the percentage of companies which include each item, based on the total sample, Table 9-8b compares the study findings with previous studies and Table 9-8c shows the percentage of companies which include each item based on the applicable companies.

9-5-3-1 Usability Information disclosed according to users' needs, based on the total sample:

Overall, Table 9-8.a (1'2' and 3) clearly shows that the companies scored better on general usability, averagely on visibility and low on presenting information for users. On a more optimistic note, performance exceeded 84% for providing the company's name and logo in a way which is easy to spot on the website, providing short page titles, having webpages no wider than the screen and texts which stand still without moving, blinking or zooming.

At the other end of the spectrum, the descriptive statistics in Table 9-8.a (1'2' and 3) also reveal some areas where on average the general usability of items on corporate websites is problematic. For example, less than 10% of the sample companies provided features deemed to augment their website's general usability. For example, only 9% offered a link from each page in the annual report to the main table of contents, 8% distinguished between visited and unvisited links by changing colours, 4% offered a search facility inside the annual report and only 1% offered a spell checker in the search engine.

On a very troubling note, for 10 of the items deemed to support website usability, none of the companies offered the following features: such as hyperlinks from financial statements to financial statements notes, visibility of analysts' details, video of annual general meetings or press conferences, videos available with subtitles for users who are not native speakers or who have computers with no sound cards, screen displays of the length of presentation.

These results indicate that the presentation of information, in general and in multimedia format (video or other media), in particular, were rarely used. Further research in this area may reveal more reasons for the low percentage of companies presenting this kind of disclosure. The following sections provide more details of the main findings of this study and compare the study results with those of previous studies. The following sections discuss general usability items, visibility items and presentation items in turn. Each of these themes starts with the most common items first, followed by more rarely items. It should be noted that the percentages provided here are based on the total sample.

9.5.3.1.1 General usability items:

The study finding overall, as illustrated in Table 9-8.a.1, reveals that most of the companies offered/satisfied general usability items. For example Table 9-8 shows that 84 percent of the sample companies made the company name and logo easy to spot on the website, provided short page titles and had web pages no wider than the screen and a text which did not move, blink or zoom. Examining Table 9-8 again shows that the other popular items were a high level of contrast between foreground and background colours and being easy to find

by company URL on Google or other popular search engines in KSA, which were included on 82 percent of these sites. This was followed closely by 80 percent of the sites which used a common name in their URL address and 80 percent of the sites which included English-friendly features on the website; however, a lower proportion, 74 percent, used a short URL address and 61 percent provided a translation option.

At the other end of the spectrum, the descriptive statistics in Table 9-8.a.1 also reveal some areas where on average the general usability of items of the corporate websites is problematic. For example, less than 30% of the sample companies provided features deemed to augment a website's general usability (i.e. a table of contents or link page at the beginning of annual reports (26%), a search facility on every page (21%), a company name or logo clickable and linked to the home page from anywhere on the website (17%), links from each page in the annual report to the main table of contents (9%), changing colors to distinguish between visited and unvisited links (8%), a search facility inside the annual report (4%), and a spell checker in the search engine (1%). The following paragraphs discuss the percentages of companies which include some of the general usability features, taking the most common ones first and the less common ones later.

First, the most frequent item, was that 84% of Saudi corporations used a standing text (a company was considered to have provided a standing text if the text had no moving, blinking or zooming). With respect to use, the status of standing texts was very varied. While over 100% of the bank corporation offered a standing text, much less data were provided by the cement, industrial, agricultural and service corporations (89%, 88%, 80% and 76% respectively). Abdelsalam et al (2006) found that all of their sample used standing text.

Second, the results concerning the ease of spotting the company name or logo on the company website differ across sectors. Easy-to-spot company names or logos were found on 100% of the banking websites and 89% of the cement, 88 of the industrial, 80% of the agricultural and 76% of the service corporations. A comparison of the result of this study with Abdelsalam et al's (2006) (see Table

9-8.b.1) reveals that 99 percent of their sample made the company name or logo easy to spot on the website.

As illustrated in Table 9-8.a.1, it can be noted that about 83% of the companies covered in this study used standard font sizes, consistent navigational structures, limited text and articles structured with subheadings. The results are not homogeneous. The banking sector provided these features much more often than the other four sectors did. For example, all the banks (100%) used standard font sizes, but these were less common in the cement, industrial, agricultural, and service corporations (89%, 86%, 80% and 76%, respectively). Almost the same result emerges for using a consistent navigational structure, standing text, limited amounts of text and articles structured with subheadings. A comparison of the results of this study with previous studies (see Table 9-8.b.1) reveals that Abdelsalam et al (2006) found that 100 percent of their sample used standing text, 99 percent used standard font sizes and 98 percent used short text and subheadings in their articles.

Fourth, web usability studies (see Chapter 5) claimed that generally 70%-80% of website traffic comes from search engines or from friends' referrals (Cooper & Reimann, 2003). Thus a good website should be listed in the main search engines and every page has to be branded, with a clear indication of which website it belongs to. For the purpose of this study, a webpage is considered as listed in the main search engine if the URL address is available in a major search engine such as Google or other popular search engines in KSA, such as www.saudilinks.com. As shown in Table 9-8.a.1, 82% of the companies surveyed had listed URL addresses in the main search engines. One hundred percent of banks, 89 percent of cement companies, 88 percent of industrial, 80 percent of agricultural and 71 percent of service companies reported such information. This clearly indicates the importance perceived by Saudi public companies of listing their URL address in the main search engines. Abdelsalam et al (2006) found that 98 percent of their sample had their URL address available in the main search engines.

Fifth, IRS (2006) mentioned that a web address is considered easily accessible (a simple website address will increase the user-friendliness of web pages) if the URL address short enough to be remembered by users or is a logical extension of the company's name and/or brand; for example, the Riyadh Bank's URL address is (www.riyadbank.com). Of the total sample, 80% used a common company name in the URL address (see Table 9-8.a.1). For the banking sector the proportion of web sites which used a common company name in their URL address (100%) is higher than for the other sectors. Abdelsalam et al (2006) found that 81 percent use a common URL address.

'The Elements of Effective Website Design' – Part I (2003) mentioned that in order to attract the widest number of visitors to the website, designers should consider the possibility of foreign language options. Using the language of the readers helps them to feel "at home" when visiting the site. The IRS (2006) also mentioned that providing information in the investors' native language will be beneficial (IRS, 2006). Thus it is interesting to find the popularity of using foreign language options among Saudi public companies. Table 9-8.a.1 shows that 61 percent of the total sample offered a language menu or option of changing the language. This result reflects the recognition of the globalization of the Internet as a channel for attracting new investors. The results concerning language menus or change the language option again differed across sectors (see Table 9-8.a.1). A language menu was offered by 90% of the banking companies, 70% of agricultural companies, 67% of cement companies, 64% of industrial companies and 48% of service companies. Table 9-8.b.1 compares the results found in this study with results found in previous studies regarding language menus. Xiao et al (2004), for example, found that 32 percent of their sample provided a language menu and Abdelsalam et al (2006) found that only 13 percent their sample provided such information.

The general usability features rarely included by Saudi public companies are discussed in more detail in the following paragraphs. These features are: a link between each page in the annual report to the main table of contents (9%), changing colours to distinguish between visited and unvisited links (8%), a search facility inside the annual report (4%) and a spell checker in the search

engine (1%); none of the companies provided a hyperlink from the financial statements to financial statements notes.

First, with respect to providing a link from each page of the annual report to the main table of contents, the study found that only 9% of the sample did so. While 20% of the bank and agricultural corporations offered a link from each page of the annual report to the main table of contents, very few were provided by the industrial and service corporations (5% and 2%, respectively). None of the cement corporations did so. Abdelsalam et al (2006) found that only 37% of their sample offered a link from each page of the annual report to the main table of contents.

Second, 8% of Saudi public companies change the colours on their website to distinguish between visited and unvisited links. While 14% of the industrial corporation offered this feature, other sectors did so less often. Abdelsalam et al (2006) report almost similar results in a different experimental study. They found that 2% of their sample distinguished between visited and unvisited links by changing colours on the website.

Third, a search facility inside the annual report was offered by only 4% of the study sample. Only two sectors provided this, the industrial and services sectors (7% and 2% respectively). Nevertheless, the result is totally different from the findings of Abdelsalam et al (2006). They reported that 95% of their sample offered a search facility inside annual report. However, it should be recalled that Abdelsalam et al's study (2006) was undertaken in the developed world and targeted the largest companies.

Fourth, none of the companies offered the following features: hyperlinks from financial statements to financial statements notes, videos with subtitles for users who are not native speakers or who have computers with no sound cards, screen displays of a presentation's length. In the light of these findings, more investigation is required to find the reason behind such disclosure practices. The result for KSA is totally different from the findings of Abdelsalam et al (2006). They found that 38% of their sample offered hyperlinks from financial

statements to financial statements notes and 41% offered for screen displays of a presentation's length.

Table 9.8.a.1: Usability Items (General usability items)

Usability items	Industrial classification													
	All		Banking		Indus.		Cement		Services		Agric.			
	(113)		(10)		(42)		(9)		(42)		(10)			
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
87. Company URL found by conducting a simple name search on Google or other Saudi popular search engines	93	82	10	100	37	88	8	89	30	71	8	80		
88. Common natural language of company name is used in URL address	90	80	10	100	37	88	6	67	29	69	8	80		
89. URL short (For compound domain names, avoid hyphens or special character, use all lower case letters, abbreviation used for three or more words).	84	74	10	100	35	83	7	78	25	60	7	70		
90. Name or logo of company easy to spot on Website	95	84	10	100	37	88	8	89	32	76	8	80		
91. Page titles between 2 to 6 words	95	84	10	100	37	88	8	89	32	76	8	80		
92. Language menu or change language option provided on home page (English & Arabic)	69	61	9	90	27	64	6	67	20	48	7	70		
93. Website English-friendly	90	80	10	100	36	86	8	89	28	67	8	80		
94. Page not wider than screen (no horizontal scrolling required)	95	84	10	100	37	88	8	89	32	76	8	80		
95. Uses standard font sizes.	94	83	10	100	36	86	8	89	32	76	8	80		
96. Text stands still (no moving, blinking or zooming required)	95	84	10	100	37	88	8	89	32	76	8	80		
97. Text short and articles structured with subheadings connected by hypertext links to facilitate scannability (especially for users with dyslexia). Avoids links to scroll within a page	94	83	10	100	36	86	8	89	32	76	8	80		
98. Search facility available on every page in Website	24	21	5	50	14	33	1	11	3	7	1	10		
99. Spell checker embedded in search engine which provides list of clickable possible correct spelling options (important for users with spelling disabilities or foreign language users).	1	1	1	10	0	0	0	0	0	0	0	0		

Table 9.8.a.1, Continued

Usability items	Industrial classification													
	All (113)		Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)			
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
100. Name or Logo clickable and linked to home page from anywhere on Website	19	17	10	100	4	10	1	11	3	7	1	10		
101. Hyperlinks change colors to distinguish between visited and unvisited links	9	8	0	0	6	14	0	0	3	7	0	0		
102. High contrast between foreground and background colours utilized to aid colour-blind users	93	82	10	100	37	88	7	78	31	74	8	80		
103. Avoids unnecessary scrolling. Important navigation and submit buttons prominently displayed.	87	77	10	100	34	81	8	89	31	74	4	40		
104. Consistent use of arrows such as having some control scrolling, while others expand and collapse lists	94	83	10	100	37	88	8	89	31	74	8	80		
105. Navigation area positioned on right/top side of screen (for English web site). (Avoids use of alternative navigational areas)	72	64	10	100	25	60	6	67	24	57	7	70		
106. Navigation area positioned on left top side of screen (for English web site). (Avoids use of alternative navigational areas)	87	77	8	80	36	86	7	78	28	67	8	80		
107. Provides table of contents or link page at beginning of annual reports, or alphabetical index, including notes to financial statements	29	26	9	90	12	29	0	0	6	14	2	20		
108. Each page in annual report links back to main table of contents from each page.	10	9	2	20	5	12	0	0	1	2	2	20		
109. Information in financial statements hyperlinked to notes to financial statements.	0	0	0	0	0	0	0	0	0	0	0	0		
110. Website contains search facility inside annual report (both HTML & PDF)	4	4	0	0	3	7	0	0	1	2	0	0		
111. Utilizes consistent navigational structure.	94	83	10	100	37	88	8	89	31	74	8	80		

9.5.3.1.2 Visibility items:

Table 9-8.a.2 summarises the study findings of the visibility features found on Saudi public companies' websites. The most common is the visibility of user feedback/'contact us' facilities and the visibility of a site map/directory, which are found 81 percent and 80 percent of the sites, respectively. Others of the most common visibility features are the visibility of a financial snapshot (62%), visibility of investor relations contact details (58%), visibility of press releases (57%) and visibility of an investor relations link (53%). In addition, the lowest common visibility items are: directors' and executives' details (10%), visibility of an investors' glossary (9%), visibility of names and details of the Shariaa committee (5%) and visibility of analysts' details (0%). By sector, the study finds that banking corporations offered greater visibility to the most important information than the other sectors did, which is, again, in line with the expected results. The following paragraphs discuss the percentage of companies which include enhanced visibility for some items on their website, the most common items first and for rarer items later.

First, it can be noted that in all sectors more than 81% of the corporation made user feedback/'contact us' features visible in some way, although the amount of data varied substantially across the five sectors. While 100% of the banking corporation offered visible feedback/'contact us' facilities, these were provided by fewer industrial, agricultural, cement and service corporations (88%, 80%, 78% and 71%, respectively). Second, the results concerning the visibility of a site map/directory (80%) differed across sectors (see Table 9-8.a.2). A conspicuous site map was offered by 100% of the banking, 88% of the industrial, 80% of the agricultural, 78% of the cement and 71% of the service corporations.

Third, a visible financial snapshot was offered by 62% of the sample. The visibility of financial snapshots differs across sectors (see Table 9-8.a.2). It was offered by 100% of the banking, 70% of the agricultural, 62% of the industrial, 55% of the services and 44% of the cement corporations. Fourth, visible investor relations contact details were offered by 58% of Saudi companies. Out of the companies providing such information, 100% of the banking sector did,

76% of the cement sector, 62% of the industrial, 50% of the agricultural and 43% of the service corporations did. Fifth, visible press releases were offered by 57% of the sample. Moreover, 100 percent of the sample companies in banks did so. The agriculture, cement, industry and services sectors followed (60%, 56%, 55% and 48% respectively).

Comparing the results of this study with those of previous studies (see Table 9-8b.2), Abdelsalam et al's (2006) was the only study to examine the visibility of these items, to the researcher's knowledge. Abdelsalam et al's (2006) survey reported that 96% of their sample had visible user feedback/'contact us' facilities, 68% a site map/directory, 92% a financial snapshot and 99% press releases.

The visibility items rarely disclosed by Saudi public companies are discussed in more detail in the following paragraphs.

First, only 10% of the sample made directors' and executives' details visible for users. Out of this group, 20% of the banking sector did so, 12% of the industrial, 10% of the service sector and none from the cement and agricultural sectors. Second, 9% of Saudi public companies included in this study made an investor glossary available for users. For banking sector, the percentage which offered such information (40%) was higher than for the other sectors: 10% of the industrial, 5% of the service firms and of the other sectors offered such information. Abdelsalam et al's survey (2006), for example, reported different results. They found that 79% of their sample made directors' and executives' details visible, 19% did the same for an investors' glossary and 45% for analysts' details.

Third, the visibility of the names and details of the firm's Shariaa committee was offered by only 5% of the sample. Visible names and details of the Shariaa committee on corporate websites were offered by 60% of the banking corporations. Other sectors provide nothing in this context because this item does not apply to them. No study has examined Shariaa committee details before.

Table 9.8.a.2: Usability Items (Visibility Items)

Usability items	Industrial classification													
	All (113)		Banking (10)				Indus. (42)		Cement (9)		Services (42)		Agric. (10)	
			No	%	No	%	No	%	No	%	No	%		
112.	33	29	6	60	17	40	1	11	6	14	3	30		
113.	90	80	10	100	36	86	7	78	29	69	8	80		
114.	92	81	10	100	37	88	7	78	30	71	8	80		
115.	16	14	1	10	9	21	0	0	3	7	3	30		
116.	38	34	9	90	15	36	3	33	10	24	1	10		
117.	70	62	10	100	26	62	4	44	23	55	7	70		
118.	39	35	8	80	16	38	3	33	11	26	1	10		
119.	11	10	2	20	5	12	0	0	4	10	0	0		
120.	6	5	6	60	0	0	0	0	0	0	0	0		
121.	36	32	10	100	7	17	0	0	18	43	1	10		
122.	34	30	10	100	9	21	6	67	7	17	2	20		
123.	64	57	10	100	23	55	5	56	20	48	6	60		
124.	60	53	10	100	25	60	7	78	13	31	5	50		

Table 9.8.a.2, Continued

Usability items		Industrial classification											
		All (113)		Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)	
				No	%	No	%	No	%	No	%	No	%
125.	Visibility of Investor Relations contact details in highly visible area of Investor Relations section	65	58	10	100	26	62	6	67	18	43	5	50
126.	Visibility of Investor FAQs	23	20	8	80	7	17	0	0	7	17	1	10
127.	Visibility (of investor glossary)	10	9	4	40	4	10	0	0	2	5	0	0
128.	Visibility of information on how to buy company stock (shares)	27	24	9	90	9	21	1	11	8	19	0	0
129.	Visibility of dividend history	10	9	3	30	5	12	0	0	2	5	0	0
130.	Visibility of stock (share) symbol	22	19	4	40	9	21	0	0	7	17	2	20
131.	Visibility of interactive stock chart	16	14	6	60	4	10	0	0	5	12	1	10
132.	Visibility of stock exchange(s) link	38	34	9	90	13	31	2	22	9	21	5	50
133.	Visibility of Analysts' details	0	0	0	0	0	0	0	0	0	0	0	0
134.	Visibility of site update	21	19	4	40	8	19	0	0	7	17	2	20

9.5.3.1.3 Presentation items:

In terms of presentation, previous studies claimed that Internet technologies provide opportunities for a company to make information disclosure much more attractive as a result of using the multimedia format and webcasting events, using sound, voice and video (Gerald, 1999; Growther, 2000). Carey and Parker (2002) also revealed that, to enhance transparency, companies need to provide information in multiple formats to make information generally more accessible and valuable. In addition, the IRS (2006) requested that all presentations, speeches, reports and articles written by the key executives, corporate brochures and newsletters should also be made available and clearly accessible on the website (IR, 2006). In 2000, Ralvic and Stretton found that the following formats are the most usable formats to disclose financial reporting: HTML, PDF, spreadsheet and word-processing. HTML documents can be viewed on any browser, whether desktop, laptop computer or another electronic device, such as a Pocket PC. PDF is a special file format for creating documents which look and print exactly like the original hard copy document (see Chapter 5). Moreover, the spreadsheet format allows users to copy data using the appropriate application, such as Microsoft Office Excel. Providing those tools helps users to save re-keying time and effort when summarizing and analyzing a company's financial data (see Chapter 5).

Table 9-8.a.3 provides information about presentation formats found at websites. The most common presentation items are: providing cash flow statements in PDF format (32%), shareholder information details in PDF format (32%), a separate print version for any long page (31%), annual reports in PDF format (31%) and audit reports in PDF format (30%).

The least common presentation formats are: transcripts of any spoken audio clips (1%) and transcript of video clips and proceedings (1%). Moreover, none of the sample offered the following features: audio clips/recorded speeches from shareholders' meetings or press conferences, annual reports in spreadsheet format, latest quarterly reports in spreadsheet format, latest quarterly reports in Word and cash flow statements in spreadsheet format. Banking corporations offered such information than the other sectors

which is, again, in line with the expected results. The following paragraphs discuss the percentage of companies which included some of the general usability items, taking the most common items first and then the more rarely disclosed items.

First, the most common format (32% of firms in the sample) offered a cash flow statement in PDF format. Again, more bank sector companies (100%) offered this than did companies in the four other sectors. Industry and service companies followed, with 33% and 24% respectively; whereas cement and agriculture companies had almost the same percentage, 11% and 10% respectively. Moreover, the study found that providing a cash flow statement in another format was less common in Saudi Arabian corporations (in HTML format: 9%, Word file: 3% and none of the sample offered a cash flow statement in spreadsheet format).

Second, 32% of the sample offered shareholder information in PDF format. Moreover, 100 percent of the sample banks did so and companies in industry, services, cement and agriculture sectors followed (31%, 26%, 11% and 10%, respectively). While most of the websites which the study reviewed used PDF format to present shareholder information, other formats were less common in Saudi Arabian public companies (in HTML format: 11% and Word files: 3%).

Third, 31% of Saudi companies offered a separate print version online for any long page. For the banking sector the percentage which did so (100%) was higher than of firms in the other sectors: 33% for cement, 24% industrial, 24% services and 20% agricultural. The result found here (31%) is almost similar to the findings by Abdelsalam et al (2006). They found that about 36% of their sample provided a separate print version for any long page.

Fourth, 31% of the sample included in this survey offered an annual report in PDF format. While 90% of the banking corporation offered this, fewer examples were provided by industrial, service, cement and agricultural corporations (33%, 24%, 11% and 10%, respectively). Moreover, the study found that 15% of the

sample provided an annual report in HTML format, 4% in Word and none of the sample companies provided an annual report in spreadsheet format.

Fifth, 30% of the sample offered an audit report in PDF format. In industrial classification table 9-8.a.3 reveals some interesting patterns. It is appear that published audit reports online in PDF format was common (80%) in the banking sector than other 4 sectors (industrial 31%, services 26%, cement 11 and agricultural 10%). Moreover, the study found that providing an audit report in another format was less common in Saudi Arabian corporations (4% in HTML format and 3% in Word).

In the light of the above findings, it can be concluded that the most usable format for the disclosure of financial reporting by Saudi companies is PDF, followed by HTML, then spreadsheet format and Word. Thus it can be said that Saudi companies are in the first stage of IFR, according to Jones and Stanwick's classification of IFR (2001) (see Chapter 5). Jones and Stanwick (2001) identified three stages for IFR. In the first stage, firms provide only electronic versions (mainly scanned or in PDF format) of the hard copy report in an effort to increase the accessibility and speed of distribution of their financial information. The second stage has similar goals to the first stage, but firms take the additional time and effort to convert hard copy to HTML language, which increases the user's interactivity with the information. In the third stage, firms use more features unique to the Internet (e.g. downloadable spreadsheets and video/audio clips).

Providing financial information in PDF format was the subject of some previous studies conducted in different parts of the world. The result reported here is in the middle ranking compared with previous studies (see Table 9-8.b.3 and Chapter 5). A comparison of the result of this study with previous studies reveals that offering financial information in PDF file, in general, ranged from 4% (Laymer and Tallberg, 1997) to 98% (Marstona and Polei, 2004) in developed countries. In developing countries, the range is from 2% (Abu Al-Azm, 2001) to 29% (Xiao et al, 2004). However, most of the previous studies

reported in the literature have targeted only the largest companies and have included companies in the developed world.

As illustrated in Table 9-8.a.3, it was found that only one company (in the industrial sector) offered transcripts of any spoken audio clips, video clips and proceedings. Table 9-8.a.3 also revealed that none of the Saudi public companies included in this survey offered a video of annual general meetings or press conferences; or videos in versions with subtitles for users who are not native speaker or who have computers with no sound cards; or audio clips/recorded speeches from shareholder meetings; or press conferences and detailed information for each webcast event.

Moreover, it has been found that presentations of information in multimedia format (video or other material) were rarely used in previous studies. For example, in developed countries, only 6% of the UK companies offered speeches of company executives (Gowthorpe, 2004). In Germany it was found in 2000 that 8% offered sound and 24% video files (Marstona and Polei, 2004). In 2006, Abdelsalam et al found that only 36 percent of their sample offered audio clips/recorded speeches from shareholders' meetings or press conferences. In developing countries, only 5 percent of Chinese companies offered sound files and none of the Chinese companies offered video files (Xiao et al, 2004). In respect of annual general meeting videos (AGMs) Abdelsalam et al (2006) found that 27 percent provided a video of annual general meetings or press conferences. In terms of transcripts of multimedia presentations, Abdelsalam et al (2006) revealed that 18% of their sample provided transcripts of spoken audio clips and 15 percent provided transcripts of video clips.

Table 9.8.a.3: Usability Items (Presentation Items)

Usability items	Industrial classification												
	All		Banking (10)		Indus. (42)		Cement (9)		Services (42)		Agric. (10)		
	(113)												
	No	%	No	%	No	%	No	%	No	%	No	%	
135. Video of annual general meetings or press conferences provided	0	0	0	0	0	0	0	0	0	0	0	0	
136. Videos available in versions with subtitles for users who are not native speaker or who have computers with no sound cards	0	0	0	0	0	0	0	0	0	0	0	0	
137. Displays audio clips / recorded speeches from shareholder meetings or press conferences.	0	0	0	0	0	0	0	0	0	0	0	0	
138. Transcripts of any spoken audio clips provided	1	1	0	0	1	2	0	0	0	0	0	0	
139. Transcript of video clips and proceedings provided	1	1	0	0	1	2	0	0	0	0	0	0	
140. Provides slide presentations [PDF / PPT]	13	12	6	60	2	5	0	0	4	10	1	10	
141. Screen displays presentation's length and / or user's current progress toward completing web cast.	0	0	0	0	0	0	0	0	0	0	0	0	
142. Website provides detailed information for each web cast event.	0	0	0	0	0	0	0	0	0	0	0	0	
143. In comparing company with peers and/or industry leaders, different coloured graph lines distinguishable (even by most colour-blind users)	4	4	3	30	1	2	0	0	0	0	0	0	
144. Help link explains how to use graphing feature	1	1	0	0	1	2	0	0	0	0	0	0	
145. Displays financial information in alternative languages (Arabic &English)	44	39	9	90	18	43	5	56	9	21	3	30	
146. annual report in PDF format available	35	31	9	90	14	33	1	11	10	24	1	10	
147. annual report HTML format available	17	15	5	50	6	14	2	22	3	7	1	10	
148. annual report downloadable spreadsheet format available	0	0	0	0	0	0	0	0	0	0	0	0	
149. annual report WORD file available	4	4	1	10	2	5	1	11	0	0	0	0	
150. PDF of latest quarterly / interim report provided	12	11	10	100	0	0	1	11	1	2	0	0	
151. HTML of latest quarterly / interim report provided	3	3	1	10	1	2	1	11	0	0	0	0	
152. Downloadable spreadsheet of latest quarterly / interim report provided	0	0	0	0	0	0	0	0	0	0	0	0	
153. WORD file of latest quarterly / interim report provided	2	2	1	10	0	0	1	11	0	0	0	0	

Table 9.8.a.3, Continued

Usability items	Industrial classification													
	All (113)		Banking (10)				Indus. (42)		Cement (9)		Services (42)		Agric. (10)	
			No	%	No	%	No	%	No	%	No	%		
154. Cash flow statement present in PDF format	36	32	10	100	14	33	1	11	10	24	1	10		
155. Cash flow statement present in HTML format	10	9	1	10	6	14	1	11	0	0	2	20		
156. Cash flow statement present in downloadable spreadsheet format	0	0	0	0	0	0	0	0	0	0	0	0		
157. Cash flow statement present in WORD file	3	3	0	0	2	5	1	11	0	0	0	0		
158. Shareholder information detail provided in PDF format	36	32	10	100	13	31	1	11	11	26	1	10		
159. Shareholder information detail provided in HTML format	12	11	1	10	8	19	1	11	0	0	2	20		
160. Shareholder information detail provided in WORD file	3	3	0	0	2	5	1	11	0	0	0	0		
161. Audit report provided in PDF format	34	30	8	80	13	31	1	11	11	26	1	10		
162. Audit report provided in HTML format	4	4	0	0	3	7	1	11	0	0	0	0		
163. Audit report provided in WORD file	3	3	0	0	2	5	1	11	0	0	0	0		
164. If audit report in PDF format, scanned image high quality	29	26	8	80	10	24	1	11	10	24	0	0		
165. For large PDF files, Website offers option to download document in smaller sections(more than 1 MB)	14	12	7	70	2	5	1	11	3	7	1	10		
166. For each PDF document provides gateway page that gives summary description of content and file size	9	8	1	10	6	14	0	0	1	2	1	10		
167. Provides separate print version for any long page	35	31	10	100	10	24	3	33	10	24	2	20		

9-5-2-2 Usability items disclosed based on users' need in the applicable companies:

In terms of general usability items, it is clearly shown in Table 9-8.c.1, based on the applicable companies, that most Saudi public companies included in this survey provide/satisfy (95% or more) of most of the general usability items. For example, 100 percent of companies made the company name and logo easy to spot on the website, 100 percent provided short page titles, 100 percent offered web pages no wider than the screen and 100 percent offered standing text (no moving, blinking or zooming required). A closer look at Table 9-8b, however, still reveals some need for improvement in general usability among Saudi public companies on their corporate websites. For example, less than 10% of the sample companies provided the information deemed to augment website general usability (i.e. offered a spell checker in the search engine; changed colours to distinguish between visited and unvisited links (9%) and none of the companies provided hyperlinks from financial statements to financial statements notes (0%).

In term of visibility items, Table 9-8.c.2, based on applicable companies, shows that Saudi public companies scored high (90% or more) with some of the visibility items. For example, 100 percent of companies make directors' and executives' details visible on their websites, 100 percent provide users with easy access to the audit report (100%), 100 percent make a stock exchange link visible in their websites, 99 percent make a site map visible and 99 percent make user feedback/'contact us' visible. At the other end of the spectrum, the descriptive statistics in Table 9-8b reveal some areas where on average corporate websites visibility is more problematic. For example, none of the sample companies made analysts' details visible.

In terms of presentation, it is clearly shown in Table 9-8.c.3 that: the majority (more than 70%) of Saudi public companies included in this survey offered financial information in PDF format. For example, 88 percent of companies offered an annual report in PDF, 80 percent for the interim report, 78 percent for the cash flow statement, 73 percent for shareholder information and 87 percent

for the audit report. HTML format is less common than PDF format. 43 percent offered an annual report in HTML format, 20 percent for the interim report, 22 percent for the cash flow statement, 24 percent for shareholder information and 10 percent for the audit report. Table 9-8b shows that none of the sample companies provided financial information in downloadable spreadsheet files (annual report, interim report or cash flow statement). Between 6 and 13 percent of Saudi public companies included in this survey use Word format for their financial information.

From the discussion in the previous chapter, it appears that the users of IFR believed that the following items were the most important in companies' corporate websites, in terms of usability:

- Providing IFR in word-processing format,
- Providing IFR in PDF format,
- Providing IFR in spreadsheet format,
- Providing IFR in HTML format and
- Providing IFR in multiple languages.

Table 9-8.c.3 shows that about 88% percent of the companies in the sample disclosed the IFR in PDF format. 86% of the companies in the sample disclosed the IFR in multiple languages. About 43% of Saudi public companies offered IFR in HTML format. Only 10% of the companies included in this survey used a word-processing format to present IFR. Not one company used spreadsheet format to present IFR.

9-6 Conclusion:

As been explained at the beginning of this chapter, its main objectives were, first, to provide a useful account of the number of Saudi Arabian public companies which had a website and assess how many of them disclosed their financial information on the Internet. Second, it was to provide descriptive statistics for their independent and dependent variables. According to the account, 95 of the companies surveyed (84%) have websites and 51 (45%) of these have a financial information section. In respect of website content, the findings reveal that, on average, our sample of Saudi companies supplied only 28% of the items assessed by the IFR overall comprehensiveness index of disclosure. Performance is best on general content (33% on average) and usability (31% on average) and somewhat worse on credibility (21% on average). This result indicates that, while a high proportion of the sample engaged in IFR, the range of information disclosed tends to be limited. Thus Saudi Authority organizations and Saudi public companies need to enhance the quality of their IFR reporting. The next chapter tries to identify reasons for the differences in the online disclosure practices of companies by testing the association between seven firm-specific factors and the level of web disclosure.

Chapter 10: Factors which might explain the variations in IFR level of disclosure

10-1 introduction:

The empirical work reported in the literature (reviewed in Chapter 5) suggested that the extent of IFR disclosure could be related to many company characteristics. The characteristics which are investigated in most of the past studies are the company's size, its performance, its industrial classification, its financial structure, its external auditor and whether or not the company is listed on the stock exchange (see for example, Abdelsalam et al, 2006; Xiao et al, 2004; Oyelere et al, 2003; Marston, 2003; Ettredge et al, 2001; Brennan and Hourigan 2000; Gowthorpe and Omat 1999; and Craven et al, 1999). Moreover, evidence from the literature review revealed that ownership and board structure are considered important factors affecting the amount and channel of disclosure (e.g. Milne, 2006; Arnoud et al, 2005; Eng and Mak, 2003; Cadbury, 2002; Chau and Gray, 2002; Cutting and Kouzmin, 2000; Burkart et al, 1997; Graves and Waddock, 1994; Cadbury Committee, 1992; Forker, 1992; Watts, 1986; Fama and Jensen, 1983; Leftwich et al, 1981; and Jensen and Meckling, 1976). These characteristics will be used in this study in an attempt to find explanations for the variation in the corporate level of IFR disclosure.

This study seeks to further understanding of the information environment in the Saudi capital market. Three features of this undertaking may be considered noteworthy. The first one concerns the items used to measure the level of disclosure. While most of the previous studies (with a few exceptions, notably, Abdelsalam et al, 2006, 143 items; Abdelsalam et al, 2004, 114 items; Xiao et al, 2004, 82 items; Marston and Polei 2004, 71 items; and Allam and Lymer, 2003, 36 items) have reviewed a very limited number of items, the present study includes both factors which have been proposed as being relevant to voluntary disclosures in the advanced market economies and ones unique to the Saudi environment. Second, it makes use of several theories of disclosure, thereby broadening and deepening the scope of the analysis. Third, by differentiating between the general content (the credibility aspects of IFR) and the usability aspects of disclosures, it is able to increase the specificity of the

findings on the incidence of effects from different factors. In addition, another feature of this research concerns the explanatory variables. The Saudi government owns various amounts of the capital in some companies. Does the government ownership of corporate shares have an effect on these companies' disclosure practices? Does the ownership structure have an effect on these companies' disclosure practices? Does the board structure have an effect on these companies' disclosure practices? These questions are worth investigation and are addressed in this chapter.

Since the relationship between the level of Internet financial reporting disclosure (IFR) and companies' characteristics is a dependent one, multiple regressions will, therefore, be used to analyse such an association. There are four dependent variables and eight independent variables. The dependent variables are the different stages of the Internet financial reporting disclosure index (IFR) constructed in this study, a description of which was given in Chapter 7. They are

The overall index of disclosure,

- General content index of disclosure,
- Credibility index of disclosure and
- Usability index of disclosure.

As was explained in the methodology chapter, the categorical independent variables are:

- Type of industry to which a company belongs,
- Stock market listing status of the company,
- Type of auditing firm (i.e. whether local or an international affiliate),
- Number of major shareholders and
- Role duality.

Furthermore, there are several continuous explanatory variables. They are

- Firm size (total assets),
- Firm profitability (return on total assets),
- Percentage of major shareholders,
- Free float and
- Board size.

The following sub-section will describe the variables selected in this study and the multivariate analysis will follow.

10-2 Descriptive and univariate analysis of the variables which might explain the variation in the level of Internet financial reporting disclosure (IFR):

As was mentioned above, the independent variables are of two types: continuous variables and categorical variables. The following sections will describe these two types of variable and their univariate association with the level of IFR disclosure. The main target of this analysis is to assess the univariate effect of these variables on the level of IFR and to prepare the variables (for instance, by creating dummy variables) for inclusion in the subsequent multivariate analysis. The discussion of the results will be saved until the multivariate analysis has been performed.

10-2-1 The continuous independent variables:

The literature reviewed in Chapter 5 suggests an association between the level of overall IFR disclosure, as well as the general content, credibility and usability of the information reported on corporate websites, and the company's financial, ownership characteristics and board structure. The characteristics included in this research are total assets, return on total assets, percentage of major shareholders, percentage of company shares which are freely traded at the stock exchange and total number of directors. The reasons for choosing these variables are addressed in the methodology chapter. To operationalise the test of the corporate level of disclosure and its financial ownership characteristics and board structure seven hypotheses were formulated. These hypotheses, stated in their null form, are:

H1. There is no significant association between company size and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H2. There is no significant association between firm profitability (return on total assets) and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H3 There is no significant association between proportion of government ownership of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H4 There is no significant association between the proportion of institutional ownership of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H5 There is no significant association between the proportion of individual shareholders of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H6 There is no significant association between the percentage of company shares which are freely traded at the stock exchange and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

H7 There is no significant association between board size and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 10-1 reports the correlation coefficients among the continuous independent variables and also between them and the dependent variables. The table shows that size has high significant correlations with all types of disclosure (overall IFR disclosure, general content, credibility and usability disclosure). This suggests the potential for at least some of the hypotheses to be supported. There are also low significant correlations between company profitability, percentage of major individual ownership and number of the board of directors with all types of disclosure (overall IFR disclosure, general content, credibility and usability disclosure).

It is interesting to find that the percentage of major government ownership is only significantly correlated with credibility and usability disclosure. One possible reason for this is that government firms have little motivation to disclose voluntary information because the demand on them to make public disclosures is weaker than on companies which have wider ownership (Milne, 2006). The percentage of institutional ownership has negative significant correlations with all types of disclosure (overall IFR disclosure, general content, credibility and usability disclosure). This result is acceptable, since Marston and Polei (2004) have mentioned that more closely held companies will disclose less information on the Web because their large investors can access internal

sources of information. The percentage of company shares which are freely traded on the stock exchange shows no correlation with all types of disclosure (overall IFR disclosure, general content, credibility and usability disclosure).

Table 9-9 shows a high correlation between percentage of major individual ownership and the percentage of company shares which are freely traded on the stock exchange. Table 10-1 also shows that among the independent variables, high and negative correlation exists between the percentage of major individual ownership and the percentage of major institutional ownership. These correlations should be considered when a multivariate analysis is performed.

All of the remaining correlations are relatively low. A multivariate analysis will be performed later in this chapter.

Table 10.1: Pearson Correlations for Dependent and Continuous Independent Variables

Continuous Variables	1	2	3	4	5	6	7	8	9	10	11
Total Score (1)	1										
Content Score (2)	.979 ^a .000** ^b	1									
Credibility Score (3)	.981 .000**	.948 .000**	1								
Usability Score (4)	.989 .000**	.964 .000**	.955 .000**	1							
Company size (5)	.665 .009**	.649 .000**	.651 .000**	.661 .000**	1						
Company profitability (6)	.246 .009**	.222 .018*	.224 .017*	.236 .012*	.354 .000**	1					
Percentage of major government ownership (7)	.188 .046	.171 .071	.190 .044*	.196 .037*	.392 .000**	.143 .130	1				
Percentage of major institutional ownership (8)	-.244 .009**	-.226 .016*	-.248 .008**	-.250 .007**	-.104 .273	-.233 .013*	-.388 .000**	1			
Percentage of major individual ownership (9)	.195 .038*	.193 .041*	.190 .044*	.192 .042*	-.038 .687	.246 .009**	-.240 .010*	-.698 .000**	1		
Free float (10)	.153 .107	.173 .066	.143 .132	.136 .152	.110 .244	.212 .024*	-.058 .545	-.472 .000**	.705 .000**	1	
Number of the board of directors (11)	.318 .001**	.330 .000**	.280 .003**	.314 .001**	.426 .001**	.165 .080	.238* .011	-.071 .454	.069 .469	.234* .013	1

a: The Pearson's Correlations coefficient.

b: the level of significance. (*): as 005(one-tailed test).

10-2-2 The categorical independent variables:

The following sections will describe the categorical variables.

10-2-2-1 Industry type to which a company belongs:

It has been argued in the literature that the type of industry which a company belongs to may affect its disclosure behaviour. The effect of the industry type on IFR disclosure is examined in this study. Specifically, this study will test the following hypothesis, which is stated in its null form as follows:

H8 There is no significant association between industry type and overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Descriptive statistics pertaining to the IFR disclosure practices of companies in different sectors were reported at the beginning of this chapter. Table 10-2 reports the results of the pairwise test differences between companies in different sectors regarding their IFR disclosure (i.e. overall IFR disclosure, general content disclosure, credibility disclosure and usability disclosure). As may be seen from this table, the null hypothesis is rejected in all comparisons where the banking sector is compared with other sectors. A closer look at Table 10-2 will reveal that some of the industry sectors exhibit no significant differences between them and they have about the same pattern of difference from the bank sector. To minimise the number of variables used in the subsequent multivariate analysis, the sectors which have no significant differences between their levels of IFR disclosure are combined into one group. They are the industrial, cement, services and agriculture sectors. Therefore, for statistical analysis there will be two industry groups: the banking group and the others. The statistical test of differences between the modified industries groups are reported at the bottom of Table 10-2.

To examine the effect of industry type on the level of IFR disclosure in the subsequent multivariate analysis, a dummy variable must be created. This dummy variable along with its values is:

Banking = 1 if the company belongs to the bank sector

Banking = 0 for other companies in other industry sectors

Table 10.2: The level of Significance for the Differences Between the Industry Sectors Regarding their Level of IFR Disclosure

Industry type	Overall IFR disclosure	General content disclosure	Credibility disclosure	Usability disclosure
Bank vs. Industrial	.000* +	.000* +	.000* +	.000* +
Bank vs. Cement	.000* +	.000* +	.000* +	.000* +
Bank vs. Services	.000* +	.000* +	.000* +	.000* +
Bank vs. Agriculture	.000* +	.000* +	.000* +	.000* +
Industrial vs. Cement	.603 +	.399 +	.882 +	.647 +
Industrial vs. Services	.082 +	.103 +	.117 +	.061 +
Industrial vs. Agriculture	.334 +	.435 +	.263 +	.429 +
Cement vs. Services	.434 +	.673 +	.271 +	.487 +
Cement vs. Agriculture	.712 +	.935 +	.435 +	.774 +
Services vs. Agriculture	.797 -	.806 -	.953 -	.691 -
Bank vs. All sectors	.000* +	.000* +	.000* +	.000* +

- The numbers in the cells are the Asymp. Sig. level of Mann-Whitney U test of pairs of users' group (*): as 005(one-tailed test).
- The + and - signs underneath the numbers indicate the location of the mean to which group (i.e., plus sign means the mean of the first group is larger than the second).

10-2-2-2 Stock market listing status of the company:

As was explained in the methodology chapter, the impact of the stock market listing on the IFR disclosure level in Saudi Arabia is examined in this study. Specifically, this study will test the following hypothesis, which is stated in its null form as follows:

H9 There is no significant association between stock market listing and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

A later section will test this hypothesis in a multivariate context. Table 10-3 reports the statistical tests of differences in disclosure practices of listed and unlisted companies. As shown in Table 10-3, the null hypothesis is rejected for all aspects of IFR disclosure (overall IFR disclosure, general content disclosure, credibility disclosure and usability disclosure). In order to include the listing status as a variable in subsequent multivariate analysis, a dummy variable must be created. This dummy variable will take the following values:

Listing = 1 if the company is listed in the Saudi stock market.

Listing = 0 if the company is not listed in the Saudi stock market.

10-2-2-3 Type of the auditing firm:

This research attempts to assess the impact of the type of the auditing firm on the level of IFR disclosure. Specifically, this study will test the following hypothesis, which stated in its null form as follows

H10 There is no significant association between companies audited by the Big-4 international audit firms and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 10-3 reports the statistical test of differences between the two groups of companies (companies audited by local firms and companies audited by auditing firms which have an affiliation with one of the international companies) regarding their level of IFR disclosure. As may be seen from this table, the null hypothesis is rejected for all aspects of IFR disclosure (overall IFR disclosure, general content disclosure, credibility disclosure and usability disclosure). To be included in the multivariate analysis, the type of auditor variable is represented by a dummy variable whose values are:

Audit = 1 if the auditing firm has an affiliation with an international company
Audit = 0 if the auditing firm is an independent local firm.

10-2-2-4 The status of the of government ownership:

The literature reviewed in Chapters 5 and 7 suggests an association between the status of government ownership of a firm and its IFR comprehensiveness, as well as the general content, credibility and usability of the information reported on its corporate website. Specifically, this study will test the following hypothesis, which stated in its null form is as follows:

H11 There is no significant association between the amount of government ownership of a company's shares and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 10-3 reports the results of the statistical tests of differences between the two groups of companies (non-government and entirely or wholly government owned companies) regarding their level of IFR disclosure. As may be seen from this table, the null hypothesis could not be rejected for all aspects of IFR disclosure (overall IFR disclosure, general content disclosure, credibility disclosure and usability disclosure). To be included in the multivariate analysis, the type of government ownership variable is represented by a dummy variable whose values are:

Government = 1 if government is a major shareholder.

Government = 0 if not is a major shareholder.

10-2-2-5 The status of the institutional ownership:

It appears that the extent of Internet disclosure is expected to be associated with the level of institutional ownership (Abdelsalam et al, 2007; Ajinkya, et al, 2005; Eng and Mak, 2003; Chau and Gray, 2002; Bushee and Noe, 2000; Schadewitz and Blevins, 1998; El-Gazzar, 1998; Shleifer and Vishny, 1997; Graves and Waddock, 1994). Specifically, this study will test the following hypothesis, which stated in its null form is as follows:

H12 There is no significant association between the amount of institutional ownership of a company's share and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 10-3 reports the statistical tests of differences in disclosure practices of institutional and non-institutional companies. As shown in Table 10-3, the null hypothesis could not be rejected for all aspects of IFR disclosure (overall IFR disclosure, general content disclosure, credibility disclosure and usability disclosure). In order to include the institutional ownership status as a variable in subsequent multivariate analysis, a dummy variable must be created. This dummy variable will take the following values:

Institutional = 1 if institutions are major shareholders.

Institutional = 0 if institutions are not major shareholders.

10-2-2-6 The status of diffused ownership:

Evidence from the empirical studies (see Chapter 5 and Table 7-12) revealed that diffused ownership is considered to be another factor which affects Internet reporting disclosure. It has been argued that firms whose ownership is spread are more likely to have a website and to provide more information than are closely held companies. Specifically, this study will test the following hypothesis, which stated in its null form is as follows:

H13 There is no significant association between the amount of individual ownership of a company's share and the overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 10-3 reports the results of the pairwise test differences between the two groups of companies regarding their IFR disclosure (i.e. overall IFR disclosure, general content disclosure, credibility disclosure and usability disclosure). As may be seen from this table, the null hypothesis could not be rejected for all aspects of IFR disclosure. To be included in the multivariate analysis, the type of individual ownership variable is represented by a dummy variable whose values are:

Individual = 1 if individuals are major shareholders.

Individual = 0 if individuals are not major shareholders.

10-2-2-7 Dual role type:

Evidence from the literature (see Chapter 5 and Table 7-13) reveals that firms with CEO duality are more likely to be associated with lower levels of voluntary disclosure (Abdelsalam et al, 2007; Gul and Leung, 2004; Haniffa and Cooke, 2002; Worrell et al, 1997; Finkelstein and D'Aveni, 1994; Brickley et al, 1994; Whittington, 1993; Millstein, 1992; Mallette and Fowler, 1992; Rechner and Dalton, 1991; Carver, 1990; Zahra & Pearce, 1989; Eisenhardt, 1989; Weisbach, 1988; Dalton and Kesner, 1987; Chaganti et al, 1985 Fama and Jensen, 1983). Specifically, this study will test the following hypothesis, which stated in its null form is as follows:

H14 There is no significant association between role duality and overall IFR index of disclosure, general content index of disclosure, credibility index of disclosure and usability index of disclosure.

Table 10-3 reports the results of a statistical test of differences between the two groups of companies (companies with role duality and companies without) regarding their level of IFR disclosure. As may be seen from this table, the null hypothesis could not be rejected for all aspects of IFR disclosure (overall IFR disclosure, general content disclosure, credibility disclosure and usability disclosure). To be included in the multivariate analysis, the role duality variable is represented by a dummy variable whose values are:

Role duality = 1 if the CEO is also the chairman of the board.

Role duality = 0 if the two positions are occupied by different individuals.

Table 10.3: A comparison Between IFR Disclosure Levels and Some Saudi Company's Characteristics

Categorical independent variables	Overall IFR disclosure	General content disclosure	Credibility disclosure	Usability disclosure
Stock market listing status of the company				
Unlisted vs. Listed	.000*	.000*	.000*	.000*
Type of auditing firm				
Local vs. Affiliation with big 4	.000*	.000*	.000*	.000*
The percentage of the government ownership				
None Government vs. Government	.910	.910	.779	.885
status of the institutional ownership				
None Institutional vs. Institutional	.023	.019	.022	.026
status of the individual ownership (shares offered for public subscription)				
None Private vs. Private shares	.043	.034	.053	.049
Dual role				
None Dual vs. Dual role	.839	.671	.799	.943

• The numbers in the cells are the Asymp. Sig. level of Mann-Whitney U test of pairs of users' group (*): as 005(one-tailed test).

• The + and – signs underneath the numbers indicate the location of the mean to which group (i.e., plus sign means the mean of the first group is larger than the second).

10-3 Multivariate models:

As mentioned earlier in this chapter, there are four dependent variables representing the different stages of the Internet financial reporting disclosure index (IFR). As explained in the methodology chapter, the multiple regression technique is used to analyse the association between the level of IFR and the companies' characteristics discussed earlier in this chapter. Therefore, there will be four main regression models: each one will have one of the dependent variables and all of the independent variables

A problem in applying the Ordinary Least Square method here is that the dependent variables are ratios and, therefore, their values range from zero to one. The prediction of the model, however, could be beyond this range. In order to guarantee that the predicted value of the disclosure index will fall within the range of zero to one, a form of transformation of the dependent variable may be needed. Moreover, it has been suggested in the statistical literature that the transformation of some or all of the continuous variables could solve the problem of the non-normality of residuals (e.g. Abdelsalam et al, 2006; Inchausti, 1997; Cook, 1998).

However, regression diagnostics (diagnostics including Q-Q normality plots, examination of histograms of all the dependent variables, scatter plots of residuals against the predicted values and the Kolmogorov-Smirnov Z-test with Lilliefors correction for each independent and dependent variable) were performed to determine whether the assumptions of normality and equal variances were met for all dependent variables. The results show that the assumptions of normality are met for all the dependent variables. Therefore, it was not necessary to transform the dependent variables.

Because the percentage of major individual ownership is highly correlated with the percentage of major institutional ownership and free float (see Table 10-1), two sets of regressions are reported for each dependent variable (Xiao et al, 2004 and Tacq, 1998). The first one includes government and institutional

ownership but not individual ownership; the second (in Appendix 7) includes government and individual ownership but not institutional ownership.

The regression results for all models (only for first sets of regression) are shown in Tables 10-4 to 10-7. Each model reports, besides the regression coefficients (B), the standardized regression coefficient (Beta). Beta allows for a direct comparison between coefficients as to their relative explanatory power of the dependent variable (Bryman and Cramer, 1997). Also, each model reports the multicollinearity statistics: *Tolerance* and *Variance inflation factors* (VIF). According to previous research (see, for example, Abdelsalam et al, 2006; Xiao et al, 2004 and Hair et al, 1998) a tolerance value of less than .10, which corresponds to a VIF of more than 10, indicates the presence of multicollinearity among the independent variables. None of the final models shows a high collinearity between the independent variables. Moreover, according to previous studies (see Tacq, 1998; Bryman and Cramer, 1997) a low residual sum of squares indicates that the model succeeds in explaining much of the variation in the dependent variable. Moreover, Bryman and Cramer (1997) mentioned that if the significance value of the F statistic is smaller than (0.05) then the independent variables explain well the variation in the dependent variable. All four regression models were significant (less than 0.05), with the strongest model reported for overall IFR disclosure (Adjusted R Square = 54, F =12, p= .000).

The first model, which tests the association between the level of overall IFR index of disclosure and the company's characteristics, appears in Table 10-4. This model is highly significant and explains almost 54% of the variation in the level of the overall IFR index of disclosure of the sample of Saudi companies. The model implies that the large companies, companies which are listed in the Saudi stock market and companies with a large percentage of institutional ownership comply better than other companies with overall IFR disclosure.

Table 10.4: The Results of Multiple Regression Model Where the Overall Index of Disclosure is the Dependent variable

A: Model Summary

Std. Error of the Estimate	Adjusted R Square	R Square	R	
.13496	.535	.585	.765	Model 1

B: ANOVA

Sig.	F	Mean Square	df	Sum of Squares		
.000	11.742	.214	12	2.566	Regression	Model 1
		.018	100	1.821	Residual	
			112	4.388	Total	

C: Coefficients

Collinearity Statistics		Sig.	Standardized Coefficients		Unstandardized Coefficients			
VIF	Tolerance		t	Beta	Std. Error	B		
		.015	-2.487		.168	-.418	(Constant)	Model 1
2.059	.486	.000	5.356	.495	.009	.048	Firm size	
1.397	.716	.191	-1.316	-.100	.200	-.263	Firm profitability	
1.952	.512	.258	-1.137	-.102	.062	-.071	Industry type	
2.087	.479	.005	2.882	.268	.042	.120	Stock market listed	
1.435	.697	.145	1.468	.113	.031	.046	Type of auditing firm	
6.006	.167	.480	.709	.112	.098	.069	Government is a major shareholder	
6.786	.147	.184	-1.338	-.225	.124	-.166	Proportion of government ownership	
6.064	.165	.028	2.227	.353	.069	.153	Institution is a major shareholder	
7.066	.142	.002	-3.229	-.553	.089	-.287	Proportion of institutional ownership	
2.586	.387	.095	-1.683	-.174	.055	-.093	Free float	
1.057	.946	.924	.096	.006	.038	.004	Role duality	
1.300	.769	.364	.912	.067	.007	.006	Board size	

The second regression model, which tests the association between the level of the general content index of disclosure and the company's characteristics, appears in Table 10-5. The model is highly significant and explains 53% of the variation in the level of general content index of disclosure of the sample of Saudi companies. The model tells us that the level of general content index of disclosure is associated significantly and positively with company size and stock market listing status.

Table 10.5 : The Results of Multiple Regression Model Where the General Content Index of Disclosure is a Dependent variable

A: Model Summary

Std. Error of the Estimate	Adjusted R Square	R Square	R	
.18022	.525	.576	.759	Model 2

B: ANOVA

Sig.	F	Mean Square	df	Sum of Squares		
.000	11.323	.368	12	4.413	Regression	Model 2
		.032	100	3.248	Residual	
			112	7.661	Total	

C: Coefficients

Collinearity Statistics		Sig.	Standardized Coefficients		Unstandardized Coefficients			
VIF	Tolerance		t	Beta	Std. Error	B		
		.004	-2.919		.224	-.655	(Constant)	Model 2
2.059	.486	.000	5.420	.506	.012	.065	Firm size	
1.397	.716	.070	-1.834	-.141	.267	-.489	Firm profitability	
1.952	.512	.389	-.865	-.079	.083	-.072	Industry type	
2.087	.479	.003	3.052	.287	.055	.169	Stock market listed	
1.435	.697	.219	1.238	.097	.042	.052	Type of auditing firm	
6.006	.167	.423	.805	.128	.130	.105	Government is a major shareholder	
6.786	.147	.238	-1.186	-.201	.166	-.197	Proportion of government ownership	
6.064	.165	.069	1.837	.295	.092	.169	Institution is a major shareholder	
7.066	.142	.010	-2.617	-.453	.119	-.311	Proportion of institutional ownership	
2.586	.387	.244	-1.172	-.123	.074	-.087	Free float	
1.057	.946	.763	-.302	-.020	.051	-.016	Role duality	
1.300	.769	.291	1.061	.079	.009	.010	Board size	

The third regression model, which tests the association between the level of credibility index of disclosure and the company's characteristics, appears in Table 10-6. It is significant and explains almost 52% of the variation in the level of the credibility index of disclosure of the sample of Saudi companies. The model tells us that the variables of company size and of having a large percentage of institutional ownership are significantly associated with the level of the credibility index of disclosure.

Table 10.6: Results of Multiple Regression Model Where the Credibility Index of Disclosure is a Dependent Variable

A: Model Summary

Std. Error of the Estimate	Adjusted R Square	R Square	R	
.13954	.521	.572	.756	Model 3

B: ANOVA

Sig.	F	Mean Square	df	Sum of Squares		
.000	11.138	.217	12	2.602	Regression	Model 3
		.019	100	1.947	Residual	
			112	4.549	Total	

C: Coefficients

Collinearity Statistics		Standardized Coefficients			Unstandardized Coefficients		
VIF	Tolerance	Sig.	t	Beta	Std. Error	B	
		.006	-2.804		.174	-.487	(Constant)
2.059	.486	.000	5.492	.516	.009	.051	Firm size
1.397	.716	.178	-1.357	-.105	.206	-.280	Firm profitability
1.952	.512	.199	-1.292	-.118	.065	-.083	Industry type
2.087	.479	.019	2.392	.226	.043	.103	Stock market listed
1.435	.697	.156	1.431	.112	.033	.047	Type of auditing firm
6.006	.167	.486	.699	.112	.101	.070	Government is a major shareholder
6.786	.147	.290	-1.064	-.181	.128	-.137	Proportion of government ownership
6.064	.165	.019	2.375	.383	.071	.169	Institution is a major shareholder
7.066	.142	.002	-3.193	-.555	.092	-.293	Proportion of institutional ownership
2.586	.387	.156	-1.428	-.150	.057	-.082	Free float
1.057	.946	.951	.062	.004	.040	.002	Role duality
1.300	.769	.707	.377	.028	.007	.003	Board size

Model 3

The final regression model, which tests the association between the level of the usability index of disclosure and the company's characteristics, appears in Table 10-7. It is significant and explains almost 49% of the variation in the level of usability index of disclosure of the sample of the Saudi companies. The model also tells that the variables of company size, stock market listing status and of having a large percentage of institutional ownership are significantly associated with the level of usability index of disclosure. The following section will discuss the results as they relate to the research hypotheses:

Table 10.7 : Results of Multiple Regression Model Where the Usability Index of Disclosure is a Dependent Variable

A: Model Summary

Std. Error of the Estimate	Adjusted R Square	R Square	R	
.13080	.488	.543	.737	Model4

B: ANOVA

Sig.	F	Mean Square	df	Sum of Squares		
.000	9.899	.169	12	2.032	Regression	Model 4
		.017	100	1.711	Residual	
			112	3.743	Total	

C: Coefficients

Collinearity Statistics		Sig.	Standardized Coefficients		Unstandardized Coefficients			
VIF	Tolerance		t	Beta	Std. Error	B		
		.094	-1.693		.163	-.275	(Constant)	Model 4
2.059	.486	.000	4.497	.436	.009	.039	Firm size	
1.397	.716	.358	-.924	-.074	.194	-.179	Firm profitability	
1.952	.512	.274	-1.100	-.104	.061	-.067	Industry type	
2.087	.479	.006	2.812	.275	.040	.113	Stock market listed	
1.435	.697	.154	1.438	.116	.031	.044	Type of auditing firm	
6.006	.167	.565	.577	.096	.095	.055	Government is a major shareholder	
6.786	.147	.189	-1.323	-.233	.120	-.159	Proportion of government ownership	
6.064	.165	.060	1.901	.317	.067	.127	Institution is a major shareholder	
7.066	.142	.003	-3.036	-.546	.086	-.261	Proportion of institutional ownership	
2.586	.387	.069	-1.840	-.200	.054	-.099	Free float	
1.057	.946	.824	.223	.016	.037	.008	Role duality	
1.300	.769	.236	1.193	.092	.007	.008	Board size	

10-4 Discussions of the results:

The preceding sections reported the results of the multiple regression analysis concerning the association between all types of IFR disclosure and a group of companies' characteristics. This section will relate these results to the research hypotheses.

10-4-1 Firm Size:

Previous studies (see Chapters 5-6) found that there is a relationship between firm size and the extent of voluntary disclosure (Allam, 2006; Xiao et al, 2004; Oyelere et al, 2003; Marston, 2003; Debreceeny et al, 2002; Ettredge et al, 2001; Brennan and Hourigan 2000; Joshi and Al-Bastak, 2000; Gowthorpe and Omat 1999; Pirchegger and Wagenhofer, 1999; and Ashbaugh et al, 1999). Two economics-based theories are largely used in the financial disclosure literature to analyse the relationship between voluntary disclosure and company size: agency theory and legitimacy theory.

Agency theory predicts that high-quality reporting (to mitigate a conflict between owners and managers) needs highly reputed managers and that reliability in managers should result in higher compensation. Consequently, if the costs of voluntary financial information disclosure are high, then large firms are more likely to have the resources to adopt such a policy. Second, disclosure costs (based on agency theory) may be generally lower for larger firms. This is because large firms generally have a diverse product range, more complex distribution networks, more complex management information systems and databases than smaller firms. Third, large firms have a greater need for funds and can therefore be expected to disclose at a higher level (Oyelere et al, 2003).

Legitimacy theory predicts that, first, with voluntary disclosure, managers of bigger companies hope that monitoring and other costs will be reduced. Second, larger firms are subject to more public and regulatory scrutiny and thus are likely to voluntarily disclose more information to muster public support for reducing political costs and to raise capital. Third, larger firms have a stronger

incentive to enhance the corporate reputation and public image, as they are more publicly visible. Thus increasing voluntary disclosure will reduce intervention by government.

In this regard, the present study used total assets to examine the relationship between size and Internet disclosure. The hypothesis that there is no association between company size and IFR overall, as well as the general content, credibility and usability of the information reported on corporate websites, is rejected for all types of IFR disclosure. This result is consistent with many empirical Internet disclosure studies (see for example Xiao et al, 2004; Oyelere et al, 2003; Marston, 2003; Joshi and Al-Bastak, 2000; Ashbaugh et al, 1999; Hassan et al, 1999; and Marston and Leow, 1999) which have found that in most studies size is a significant explanatory variable.

10-4-2 Firm Profitability:

Evidence from the literature (see Chapters 5-6) indicates that firms with higher levels of profitability are more likely to disclose additional information (e.g. Xiao et al, 2004; Oyelere et al 2003; Marston, 2003; Healy and Palepu, 2001; Verrecchia, 2001; Craven and Marston, 1999; ; Hassan et al, 1999; Lennox, 1999; Inchausti, 1997; Hossain et al, 1995; and Wallace et al, 1994). Three economics-based theories are largely used in the financial disclosure literature to analyse the relationship between voluntary disclosure and the profitability of a company: agency theory, signalling theory and legitimacy theory.

Signalling theory indicates that firms with higher levels of profitability are more likely to disclose additional information and adopt new media such as the web in an attempt to enhance their image and to convince investors that the firm is profitable. Second, shareholders will be interested in giving "good news" to the market in order to avoid the undervaluation of their shares and to attract capital or to reduce the risk of being undervalued by the market. Third, agency theory, predicts that profitable firms are more likely have the resources to hire reliable auditors to enhance the reliability of their financial reporting. Fourth, legitimacy theory claimed that profitable companies, which are particularly under public

scrutiny, may apply self-regulation mechanisms (such as voluntary disclosure) to try to avoid external regulation.

In this regard, the return on total assets is chosen as the measure of firm profitability. The hypothesis that there is no association between firm profitability and IFR overall, as well as the general content, credibility and usability of information reported on corporate websites, could not be rejected for all types of IFR disclosure. Moreover, the study also found that there is a negative but insignificant relationship between IFR and company performance.

The result is consistent with the findings of most recent studies reported in the literature (e.g. Xiao et al, 2004; Marston, 2003; Oyelere et al, 2003; Ettredge et al, 2002), but is inconsistent with Hassan et al (1999). The relation between the level of disclosure and company performance is not a unidirectional one, as noted by Oyelere et al (2003). While profitable firms may disclose more information (IFR is one of the methods of increasing disclosure) to justify management compensation, non-profitable firms (losers) may disclose more to explain the bad news or avoid costly litigation (Hutton et al, 2003; Cairney and Richardson, 1999; Hassan et al, 1999; Williams, 1996; McNichols, 1989; Hassell et al, 1988). Butler et al (2002) also noted that firms which may be highly competitive will disclose less information.

10-4-3 Industry Classification:

Empirical evidence (see Chapter 5 and Table 7-8) indicates a relationship between industry and voluntary disclosure (Xiao et al, 2004; Joshi and Al-Bastaki, 2000; Craven and Marston, 1999; Lymer, 1997; Wildstrom, 1997; Ifchausti, 1997; Marston and Shrivess, 1996). For example, signalling theory suggests that if there is one dominant firm in an industry which has high levels of disclosure, other companies in the industry may follow. Watts and Zimmerman (1986) claimed that if a firm does not adopt the same corporate reporting strategy as others from the same industry, it could be interpreted by the market as a signal of "bad news". Second, legitimacy theory claims that industrial sectors are more in the public eye than other sectors (such as the

banking sector). Third, innovation theory suggests that industry membership may influence firms to follow earlier fads adopted from other firms in the same sector or location, to reduce uncertainty and to appear legitimate. Finally, there may be historical reasons why some industries may disclose more voluntary information than others, perhaps because some industries have a definite public profile.

For the purpose of the present study, firms in Saudi Arabia are classified into five broad categories, namely, banks, industrial, cement, services and agriculture. The hypothesis that there is no association between the type of industry to which a company belongs and the level of IFR overall, as well as the general content, credibility and usability of information reported on corporate websites, could not be rejected for all types of IFR disclosure. Moreover, the study also found that there is a negative but insignificant relationship between IFR and type of industry. This result is surprising, since the descriptive results show significant differences between industrial sectors. However, presumably the logic for this result is that in the Saudi environment all Saudi public companies follow the same disclosure requirements. Nevertheless, there is a mix of results in earlier studies about the association between the level of disclosure and the type of industry. While Craven and Marston (1999), Hassan et al (1999), Joshi and Al-Bastak (2000) and Abdelsalam et al (2004) found no association, Oyelere et al (2003) and Xiao et al (2004) found significant association.

10-4-4 Stock Market Listing Status:

It has been argued (see Chapter 5 and Table 7-9) that firms whose shares are listed on a stock market are more likely to have a website and to provide more information than are non-listed firms (Eng and Mak 2003; Chau and Gray 2002; Ferguson et al, 2002; Verrecchia, 2001; Hassan, 1999; Craven and Marston, 1999; Cooke, 1998; Burkart et al, 1997; and Wallace et al, 1994).

Agency, signalling and legitimacy are used to explain the relation between listed firms and voluntarily disclosed information. First, signaling predicts that more

extensive voluntary disclosures and a wider dissemination of financial information can also create an impression of greater transparency, which may be particularly important for the stock market. Second, additional disclosure may help the listed companies to attract new shareholders, thus enabling companies to maintain a healthy demand for shares with a liquid market (i.e., signaling predicts). Third, agency theory claimed that voluntary disclosure may help to mitigate the potential conflicts between shareholders and managers and satisfy the needs of users. Fourth, legitimacy theory also predicts that listed firms have a stronger incentive to enhance their corporate reputation and public image, as they are more publicly visible. Thus, increased voluntary disclosure will increase the demand for shares and reduce government intervention.

For the purposes of the present study, Tadawul (the Saudi Stock Market) database has been used to classify firms as listed or not listed. The hypothesis that the listing status of the company has no association with the level of IFR overall, as well as the general content, credibility and usability of information reported on corporate websites, is rejected for all types of IFR disclosure except credibility disclosure. This result is understandable in the Saudi environment, for many reasons. First, additional disclosure may help the listed companies to attract new shareholders, thus enabling companies to maintain a healthy demand for shares with a liquid market. Second, additional disclosure can also create an impression of greater transparency, which may be particularly important for the stock market. Third, additional disclosure may help to mitigate the potential conflicts between shareholders and managers and satisfy the needs of users. Finally, listed firms have a stronger incentive to enhance their corporate reputation and public image, as they are more publicly visible. Oyelere et al (2003) and Al-Razeen and Karbhari (2004) found similar results. Debreceeny et al (2002), Marston, (2003) and Xiao et al (2004), however, found no differences between listed and non-listed companies. Several reasons were identified for these mixed results; these reasons included differences in socio-economic and political environments between countries, organizational structures, construction of informational items and sampling error.

10-4-5 Type of Auditing Firm:

The results of previous studies (see Chapter 5 and Table 7-10) revealed that there is a significant association between brand name auditors and the disclosure of voluntary financial information (e.g. Xiao et al, 2004; Verrecchia, 2001; Dopuch, King and Schwartz, 2001; Lennox, 1999; Hassan et al, 1999; Hossain et al., 1995; Wallace et al., 1994; Dye, 1993; and Malone et al., 1993; Leftwich, 1983; and DeAngelo, 1981). Agency and signalling theory are largely used in the financial disclosure literature to explain the relationship between voluntary disclosure and brand name auditors.

Signalling theory revealed that the credibility of a firm's financial statements is enhanced when the firm hires a brand name auditor. This is because the brand name auditor has the resources to perform comprehensive audits and less motivation to compromise on audit quality. Agency theory suggests that auditing helps to alleviate the conflicts of interest between management and shareholders, mainly because they have more to lose from damaging their reputation.

For the purpose of the present study, firms in Saudi Arabia are classified into two broad categories; either that a company is audited by a local audit firm affiliated with one of the Big 4 or that a company is audited by a local audit firm. The hypothesis that there is no association between the type of auditor (local and international affiliate) and the level of IFR overall, as well as the general content, credibility and usability of information reported on corporate websites, could not be rejected for all types of IFR disclosure. This conclusion is an indication of the good quality of work of local auditing firms. There is a mix of results in prior studies about the effect of the type of auditor on the disclosure level. While Hassan et al (1999) and Xiao et al (2004) found no association, Abdelsalam et al (2004), found a significant association, whereby companies audited by one of the big international firms disclosed more than those audited by local firms. In addition, it is important to recognize that most of the previous studies dealt with large and listed companies only.

10-4-6 Government Ownership:

The findings of previous studies (see Chapter 5 and Table 7-12) reveal that there is a relationship between the amount of government ownership of a company's share and voluntary information disclosure (e.g. Milne, J., 2006; Arnoud et al, 2005; Eng and Mak, 2003; Cadbury, 2002; Chau and Gray, 2002; Cutting and Kouzmin, 2000; Burkart et al, 1997; Graves and Waddock, 1994; Cadbury Committee, 1992; Forker, 1992; Watts, 1986; Fama and Jensen, 1983; Leftwich et al, 1981; and Jensen and Meckling, 1976). According to governance theory and agency theory, first, government firms have little motivation to disclose voluntary information because the demand for their public disclosure is relatively weak in comparison with companies which have wider ownership. Second, firms have little motivation to maintain a healthy demand for shares with a liquid market. Third, government companies are likely to have easier access than non-government companies to different sources of finance. Finally, government companies may place a high priority on maintaining social order and effecting wealth redistribution, which to them are more important than efficiency or profitability.

For the purposes of the present study, the sample was divided into two groups, government companies and non-government companies. Moreover, the study examined the effect on IFR of the proportion of government ownership of a company's shares. The hypothesis that the amount of government ownership of a company's shares and the proportion of government ownership of a company's share have no association with the level of IFR overall, as well as the general content, credibility and usability of information reported on corporate websites, could not be rejected for all types of IFR disclosure. Moreover, the findings of the multivariate analysis provide evidence that the proportion government ownership of a company's shares has a negative insignificant relationship with all levels of IFR. The result found here is inconsistent with Xiao et al (2004).

This result reported here may be understandable in the Saudi environment because all Saudi public companies follow the same disclosure requirements and possibly because the disclosure of financial information by Saudi public companies has improved over time. Furthermore, some previous studies (e.g. Ajinkya et al, 2005; Bushee and Noe, 2000) argued that once government invests in a particular company it is likely to have added incentives to encourage further improvements in disclosure (e.g. employee relations and environmental concerns).

10-4-7 Institutional Ownership:

From previous studies (see Chapter 5 and Table 7-12), it appears that the extent of Internet disclosure is expected to be associated with the degree of institutional ownership (Abdelsalam et al, 2007; Ajinkya, et al, 2005; Eng and Mak, 2003; Chau and Gray, 2002; Bushee and Noe, 2000; Schadewitz and Blevins, 1998; El-Gazzar; 1998; and Shleifer and Vishny).

For example, agency and corporate governance theory suggests that potential interest conflicts between management and shareholders are less common in companies with closely held shares. Thus corporate governance theory also predicts that the demand on them for public disclosure is weaker than on companies which have a wider ownership. Furthermore, governance theory claims that institutional shareholdings may have control rights through board membership. Also, investors with large equity stakes can obtain information about the company from internal sources. They do not rely on published information only.

For the purpose of multi regression analysis, firms are classified under two headings, institutional and non-institutional companies. Moreover, the study examined the effect on IFR of the proportion of institutional ownership of a company's shares. The hypothesis that there is no association between the percentage of institutional ownership and IFR overall, as well as the general content, credibility and usability of information reported on corporate websites, is rejected for all types of IFR disclosure except general content. Moreover, the multi regression analysis documents a significant and negative relationship

between the proportion of institutional ownership of a company's shares and voluntary IFR. Furthermore, this hypothesis is consistent with many empirical studies of Internet disclosure (see for example, (Kelton and Yang, 2008; Abdelsalam et al, 2007; Chiang, 2005; Xiao et al, 2004; Eng and Mak, 2003) which have found that in most studies institutional ownership is a significant explanatory variable.

10-4-8 The Status of Diffused Ownership:

Empirical evidence (see Chapter 5 and Table 7-12) indicates a relation between diffused ownership and IFR (Abdelsalam et al, 2007; Haniffa and Cooke, 2006; Ajinkya, et al, 2005; Marston and Polei, 2004; Xiao et al, 2004; Abdelsalam et al, 2004; and Eng and Mak 2003).

Agency theory predicts that potential conflicts of interest between contracting parties (management and shareholders) are greater in companies with widely held shares than in companies with more closely held shares. Consequently, voluntary disclosure is more likely in firms with a dispersed ownership structure to allow investors to monitor the management better and to show that the management is acting in the interest of the owners. It has also been argued that firms whose ownership is spread are more likely to have a website and to provide more information than are close held firms. Governance theory predicts that managers of companies whose ownership is dispersed have an incentive to disclose more information to assist shareholders in monitoring their behaviour. In addition, investors who own only a small percentage of shares in a company have limited access to information about the enterprise. It can be assumed that these investors will use the Internet to gather firm-specific information because data from other sources are more difficult to obtain. The study examined the effect of individuals as major shareholders, the effect on IFR of the proportion of individual ownership of a company's share and the effect on IFR of free float.

The hypothesis that the free float has no association with the level of IFR overall, as well as the general content, credibility and usability of information reported on corporate websites could not be rejected for all types of IFR disclosure. There is a mix of results in prior studies about the effect on IFR disclosure of individuals as major shareholders. While Marston and Polei (2004) and Pichegger and Wagenhofer (1999) found no association, Abdelsalam et al (2004) found a significantly positive association between Internet financial disclosure and free float.

In term of the effect of individuals as major shareholders on IFR, multivariate analysis cannot reject the hypothesis that individuals as major shareholders have no association with the all level of IFR. This result is consistent with many empirical studies of Internet disclosure (see for example, Abdelsalam et al, 2007, Oyelere et al, 2003; and Ashbaugh et al, 1999). In addition, the hypothesis that the proportion of individual ownership of a company's shares has no association with the level of IFR overall, as well as the general content, credibility and usability of information reported on corporate websites was rejected for all types of IFR disclosure except general content disclosure (see Appendix 7). Xiao et al (2004) in China found that IFR is statistically significant in relation to shares held by legal persons.

10-4-9 Role Duality:

Evidence from the literature (see Chapter 5 and Table 7-13) suggests that firms with CEO duality are more likely to be associated with lower levels of voluntary disclosure (Kelton and Yang, 2008; Abdelsalam et al, 2007; Cheng and Courtenay, 2006; Arcay and Vazquez, 2005; and Chiang, 2005

Consistent with governance theory arguments, the person who occupies both roles would tend to withhold unfavorable information to outsiders; this may limit a board's ability to monitor the organization and thus the board performance of its governing function may be compromised. Grounded in agency theory, role duality represents a potential for a conflict of interests. This is because vesting the power of the CEO and that of the chairman of the board in one person

creates a strong individual power base. CEO duality indicates a potential for management to behave opportunistically at the shareholders' expense.

For the purposes of the present study, Saudi firms were divided into two groups, firms with role duality (where the CEO is also the chairman of the board) and firms without role duality (if the two positions are occupied by different individuals). The hypothesis that there is no association between role duality and the overall IFR index of disclosure, as well as the general content, credibility and usability of information reported on corporate websites, could not be rejected for all types of IFR disclosure. This finding is consistent with the findings of some of the recent studies reported in the literature (e.g., Kelton and Yang, 2008; Abdelsalam et al, 2007; Cheng and Courtenay, 2006; Arcay and Vazquez, 2005; Chiang, 2005; and Gul and Leung, 2004)

One possible reason for this finding is that a role duality structure may promote better communication and information flow between management and the board of directors and that better communication can lead to better decision making by the board and better disclosure (Mathieu et al, 2006; Brickley et al, 1997; Baliga and Moyer, 1996).

10-4-10 Board Size:

Board size listing is considered to be another factor which affects Internet reporting disclosure. Evidence from the empirical studies (see Chapter 5 and Table 7-13) revealed that there is an association between voluntary financial disclosure and board size (e.g. Mathieu et al, 2006; Arcay and Vazquez, 2005; Chiang, 2005).

Based on agency theory, a small board enables a company to monitor the performance of corporate executives effectively and with less conflict. The main reasons behind this are that a small board is more cohesive, more manageable and more flexible in the decision-making process than a larger board. Other studies (on the basis of corporate governance theory) found that a board which is too large would be more effective than a smaller board. The main idea behind

this hypothesis is that, first, larger boards create an impression of greater expertise, diversity of background, knowledge and intellect, which may improve the quality of strategic decisions. Larger boards also impede the CEO from dominating the board of directors and maintain shareholder interests and help the corporation to take important decisions over environmental changes.

The hypothesis that there is no association between board size and the overall IFR index of disclosure, as well as the general content, credibility and usability of information reported on corporate websites, could not be rejected for all types of IFR disclosure. Most of the recent studies found no such association between board size and overall IFR disclosure (e.g., Cheng and Courtenay (2006) in Singapore, Arcay and Vazquez (2005) in Spain, Chiang (2005) in Taiwan).

10-5 Conclusion:

As been explained at the beginning of this chapter, its main objective was to examine the factors which might explain the variation in the level of IFR disclosure. According to the regression results, large companies and listed companies comply better than other companies with the requirements of IFR disclosure. Finally, a regression result also reveals a significant negative association between IFR and block ownership (a proportion of institutional ownership).

Chapter 11: Summary and Conclusions

11.1 Introduction:

As set out in Chapter 1, the primary aims of this research were: first, to explore and investigate the perceptions of Saudi users on disclosure of financial reporting on the Internet and to explore whether there are differences in the perceptions of the three samples (Institutional investors, financial analysts and private investors). Second, to examine the use of the Internet for the disclosure of financial and investor-related information by Saudi Arabia public companies and also to examine the relationship between the extent of Internet financial disclosure by Saudi Arabian public companies and the main factors influencing disclosure, for instance, company size and type of industry.

Although this research investigated some of the questions which were also addressed in some previous studies conducted in other parts of the world (especially in the developed world), the results of this research are of special importance. This is because the Saudi environment is different from the most. In other words, the results of other studies in other countries may not hold in the Saudi environment. Moreover, there has been no previous academic study in the area of users' perceptions on the disclosure of financial reporting on the Internet (IFR) in Saudi Arabia or in any other Arab country. Moreover, prior studies of IFR have generally focused on a limited number of disclosure index items (both financial and non-financial). The comprehensiveness of disclosure index used in this study (content, 168 items) allowed the researcher to assess company websites in greater depth. Therefore, the results of this study are expected to be important to regulators, preparers, users of IFR and researchers in the field of IFR and international accounting.

This chapter provides a summary of the main findings of this study. It also highlights its main contributions, limitations and recommendations and finally proposes a number of ideas for future research.

11.2 Overview:

It was argued that the purpose of this research was to investigate the perceptions of Saudi users on disclosure of financial reporting on the Internet; examining the use of IFR by Saudi Arabian public companies was the other main purpose.

Chapter 1 described the characteristics of the accounting environment in the Kingdom of Saudi Arabia, which included brief history of the development of accounting standards, the objectives of financial accountants, the general presentation and disclosure standard and a brief history of the Saudi Organisation for Certified Public Accountants (SOCPA).

Chapter 2 This chapter aimed to describe the financial environment in the Kingdom of Saudi Arabia where the study was undertaken. Specifically, the following issues were discussed, in relation to the subject of the present study: the financial system, with a history of the Saudi Arabian stock market and of the Internet.

Chapter 3 described the effect of the main revolutions of the business environment and business practices in users' sources of information and users' information needs. In response to these revolutions, many studies around the world have engaged in a debate regarding business reporting. Overall, these studies found that users are heterogeneous in their sources of information and in their needs. However, Abdelsalam (1990), Ba-owaidan (1994), Anderson and Epstein (1995), Bence, Hapeshi and Hussey (1995), Abu-nassar and Rutherford (1996), Al-mubark (1997), Epstein and Palepu (1999), Almahmod (2001), Nasser, et al. (2003) and Al-Razeen and Karbhari (2004) considered that the annual corporate report is the source of most corporate information. In terms of ranked websites in relation to other possible sources of information, Taylor (1998) reported that private investors ranked websites 19th out of 23 in their usefulness for investment decisions and Even (1999) ranked the website as 13th out of 26 sources. Barker's results for institutional investors in the UK (1999) were similar.

The chapter also reviewed the literature relating to users' information needs. The review showed that external users of annual reports are not homogenous in terms of their informational needs. Overall, these studies found that users wanted information about the company's background, its products, forward looking information; information about the directors of the company, about its broad objectives and strategy, about risk items and innovation value driver items. Investors also wanted the annual report to be simpler, with more explanation, less in summary form and with more disaggregated information about environmental matters, corporate social responsibility, corporate ethics, employees and intellectual capital.

Chapter 4 reviewed some of the previous studies which had sought to identify the current level of Internet reporting on different location dimensions (studies of developed and developing countries and international studies). In particular, these kinds of study mainly give the reader an indication about the popularity of the Internet. These studies revealed that, first, it has become increasingly common for large companies to communicate information to external users by Internet as a useful and preferable channel. Between 16 and 100 percent of target companies had a website (from 65 to 98 percent for North American companies, from 49 to 100 percent for the U.K. and Irish companies, from 16 to 100 percent for other developed countries and from 36 to 100 percent for developing countries). In terms of financial information, between 9 and 96 percent of target companies disclosed financial information (from 46 to 97 percent for North American companies, from 30 to 93 percent for U.K. and Irish companies, from 9 to 84 percent for other developed countries and from 9 to 51 percent for developing countries). Second, most of the studies examined the use of the Internet in developed countries. Third, the samples used in these studies to identify current the current state of Internet reporting mainly consider the largest companies. Finally, most of these studies were descriptive and unclear in the methodology of measuring the content of Internet financial information. Moreover, the greater proportions of them are

practitioner focused and also a limited proportion of the literature is theoretically based.

The main reasons were discussed for developing a website, from the preparers' point of view. Previous studies identified several reasons to establish a website, for example, image building, reducing the time required to deliver financial information, reducing the cost of communication, attracting potential investors and communicating with their customers about financial performance and the company's operations.

Moreover, Chapter 4 identified some advantages and disadvantages of Internet reporting. Briefly, the benefits include: providing users with 24 hour accessibility and providing users with access to relevant data at a convenient time for the users; the opportunity to provide real-time information; the ability to provide specific information to users which meets their specific information needs; the opportunity to provide the latest, multi-dimensional data and more information than is available in the hard copy annual report. Moreover, downloadable facilities, usability features, multimedia functions and types of interactivity communication will increase the usefulness and accessibility of the information, provide users with the chance to read a large number of companies' reports and produce exception reports and also improve the transparency, liquidity and efficiency of capital markets; it also narrows the skill gap between professionals and non-professional (novice) users.

In addition, Chapter 4 discussed a number disadvantages of the Internet as a communication and reporting medium. The main disadvantages pointed out by the literature are: boundary problems, information overload, integrity, security and confidentiality, reliability, accessibility and regulatory issues. Finally, Chapter 4 reviewed some possible Internet reporting models identified by previous studies, such as the continuous model, corporate dialogue model, checklist model, Layer model, access to raw data model and mass customization model. Moreover, in this

chapter some of the Internet reporting models suggested by the major accounting organisations such as the FASB model and the 21st century annual report model were discussed.

Chapter 5 provided a summary of previous studies regarding IFR components. Mainly, these components included content items, credibility items and usability items. The study first summarised the research which has been undertaken in developed countries, then the findings from developing countries and finally those from the international studies. Examples of general content items included in previous studies were: balance sheet, income statement, company background, products and services profile, shareholder information, search engines, tables of contents and frequently asked questions. Examples of credibility items included in previous study were: auditor's reports chairman's signatures, hyperlinks inside accounting data, displays of an intermediate warning message when entering/leaving the audited annual report, directors' biographies, audit committee members' biographies, interim reports, employment profiles and a webcasting feature, company contact details and aspects of timeliness. Examples of usability items included in previous studies were: IFR formats such as PDF, HTML and spreadsheet, multimedia formats, downloading features, presenting information in more than one language and visibility items.

This chapter also tested the association between eight firm-specific factors and the level of web disclosure. The factors examined by previous studies were: company size, company performance, industrial classification, market listing, auditor type, Ownership structure, board structure, and free float. In terms of company size, evidence from the empirical studies showed that there is a significant association between company size and online disclosure practices. The main notions behind this hypothesis are: if production information is costly then large firms are more likely to be able to pay for them, larger firms are subject to more public and regulatory scrutiny and large firms generally have more complex distribution

networks than smaller firms; thus it is easier for them to provide voluntary information.

In terms of company performance, the previous literature showed that the relationship between adopting online disclosure practices and company performance is significant. The main ideas behind this hypothesis are as follows: profitable firms are more likely to disclose additional details to enhance their image and to convince investors; they are also more likely to have the resources to hire reliable auditors to enhance the reliability of their financial reporting. Profitable companies, which are particularly under public scrutiny, may apply self-regulation mechanisms (such as voluntary disclosures) in an attempt to avoid external regulation. Managers of very profitable firms will disclose detailed information in order to support the continuation of their positions and compensation arrangements.

In terms of industrial classification, several past studies have shown the relationship between online disclosure practices and the industrial sector. Previous literature on Internet disclosure levels showed that these could be affected by any of the following reasons: firms in a specific industry, which might be less competitive, will disclose information less frequently, companies with longer production cycles will provide less frequent financial reporting, members of an industry may follow the accounting policies used by the industry leaders and certain industry sectors are subject to greater political scrutiny than others.

In terms of market listing, it has been argued that firms whose shares are listed on the stock market are more likely to have websites and to provide more information than non-listed firms. The main ideas behind this hypothesis are: additional disclosure may help the listed companies to maintain a healthy demand for shares with a liquid market, listed companies are much more in the public eye than unlisted companies, mitigate the potential conflicts between shareholders and managers and satisfy the needs of users, dissemination of additional disclosure

can also create an impression of greater transparency. Internet financial reporting can reduce such information asymmetry by its instantaneous distribution and wide reach.

In terms of auditor type, the reviewed literature shows that there is a relationship between the brand name of the auditors and financial disclosure. The main ideas behind this association are: the credibility of a firm's financial statements is enhanced when the firm hires a brand name auditor, since the large audit firms (the Big 4) offer high quality because they have the resources to perform comprehensive audits and less motivation to compromise on audit quality, a firm's choice of auditor is likely to be associated with the decision to disclose more or less information, the Big 4 firms tend to be independent of clients' pressure for limited disclosure to maintain their reputation.

In terms of government ownership, the previous literature revealed that ownership structure affects the quality and quantity of disclosure. The main ideas behind this association are as follows: when the government owns a substantial amount of shares, firms have little motivation to disclose voluntary information because the pressure on them for public disclosure is weaker than on companies which have a wider ownership. Government firms have little motivation to maintain a healthy demand for shares with a liquid market, enhancing shareholder value may not always be the primary objective of government companies and government companies may place a high priority on maintaining social order and distributing wealth.

In terms of institutional ownership, the reviewed literature shows that Internet disclosure is expected to be associated with the degree of institutional ownership. The main ideas behind this association are as follows: the potential for conflicts between principal and agent is less in closely held firms, investors with large equity stakes in a company can obtain information about the company from internal sources, the demand on them for their public disclosure is weaker than on

companies which have wider ownership, may have control rights through board membership and withhold unfavorable information from outsiders.

In terms of individual ownership, the reviewed literature shows that Internet disclosure is expected to be associated with the degree of individual ownership and free float. The main ideas behind this association are as follows: the potential conflict of interests between contracting parties (management and shareholders) are greater in companies with widely held shares than in companies with more closely held shares. Managers of companies whose ownership is diffuse have an incentive to disclose more information to assist shareholders in monitoring their behaviour. Investors who own only a small percentage of shares in a company have limited access to information about the enterprise. It can be assumed that these investors will use the Internet to gather firm-specific information because data from other sources are more difficult to obtain.

In terms of CEO duality, the reviewed literature shows that there is a relationship between the CEO duality and financial disclosure. The main ideas behind this association are: the person who occupies both roles would tend to withhold unfavorable information to outsiders, may limit a board's ability to monitor the organization because power is concentrated in one individual, a potential for management to behave opportunistically at the shareholders' expense.

In terms of board size, the reviewed literature shows that there is a relationship between the board size and financial disclosure. The main reasons behind this are that a small board is more cohesive, more manageable and more flexible in the decision-making process than a larger board. Other studies found that a board which is too large would be more effective than a smaller board. Because of that, larger boards create an impression of greater expertise, diversity of background, knowledge and intellect, which may improve the quality of strategic decisions. Larger boards impede the CEO from dominating the board of directors and

maintain shareholder interests and help the corporation to take important decisions over environmental changes.

In summary, most previous studies were undertaken in the developed world. The findings of previous researchers suggest that most of them, with a few exceptions, have reviewed a very limited number of content and/or usability items. Earlier studies also revealed that the quality of websites has improved over the years. However, regardless of how many companies have established a website, there are many variations in their content. The chapter also identified some factors which might influence companies' disclosure. The findings of this chapter led to mixed conclusions. These differences could have been due to the difference in the time periods of the studies or the cultural environment of the countries which they cover. Additionally, the nature of the instruments used to measure financial disclosures may also be responsible for the difference in these results.

Chapter 6 presented theories related to the questionnaire survey and theory related to website content (disclosure index). It commenced with some background, definitions, recent history and the relationship between this research and related theory. The related theories are summarized in the Technology Acceptance Model (TAM), innovation diffusion theory (IDT), agency theory, signalling theory, legitimacy theory and innovation theory. The TAM model, for example, is often used to gain a better understanding of the adoption and use of information systems and to explain computer-use behaviour. The IDT model aims to help predict the likelihood of adoption and rate of adopting of an innovation. Corporate governance theory is defined as actually dealing with the "duties and responsibilities of a company's board of directors in managing the company and their relationships with the shareholders of the company and the stakeholder groups. The agency problem, which arises as a result of the separation of ownership (principals) and control (agent) was discussed and so was signalling theory. Signalling theory mainly attempts to explain what a firm's motivation is to disclose information voluntarily to the capital market. Further, legitimacy theory

explains the external factors influencing corporate management to seek to legitimise its activities. Firms, according to legitimacy theory, attempt to ensure that their activities are perceived by outside parties as being legitimate. Finally, the chapter also discussed innovation theory. Innovation is defined from the business point of view as: "a development and creation of new or improved, in consumer understanding, products or services [which] imposes new consumer needs or offers solutions for existing needs

Chapter 7 focused on research methodology. The chapter started by defining the research aims and objectives and sought to justify the former. Then the chapter turns to the methods of data collection. In this study two types of empirical research were used: a questionnaire survey (to collect the data for the first aim) and an index of disclosure (to collect data for the second aim). In respect of the questionnaire survey, the chapter started by reviewing previous research methodology to provide more details about some topics related to questionnaire surveys: studies defining questionnaires, their advantages and disadvantages, design, wording, and rationale were reviewed. A questionnaire with close-ended answers was adopted to collect the data in the present research.

Once the research objectives and questions were defined and the questionnaire finalized, the research effort logically turned to identifying the target population. Three groups were selected to represent the subject group of this study, institutional investors, financial analysts and private investors. The chapter also described the sample frame and size and the steps taken to test the questionnaire (pilot study). Previous studies of reliability and validity were reviewed. An internal consistency reliability test was used in this study to reflect the homogeneity of the scale and show how well the different items complemented each other in their measurement of different aspects of the same variable of quality. A content validity test of the questionnaires was conducted through a theoretical review and pilot test. The chapter also gave details of the questionnaire fieldwork and reported the respondent rate which was logically reasonable in social research, according to

previous researchers in this field. The study adopted three statistical techniques: univariate, bivariate and multivariate analysis.

The second part of this chapter dealt with the methodology used to examine the use of the Internet for the disclosure of financial and investor-related information by Saudi Arabian public companies and to test its relation with a number of corporate characteristics. A target sample consisting of 113 companies was classified into five sectors (industries): (Banking (10), Industrial (42), Cement (9), Services (42) and Agricultural (10). After the sample was identified the chapter described how a catalogue of criteria (index of disclosure) had been developed to evaluate the 113 company websites. The final index of disclosure consisted of two parts: content (general content and credibility) and usability. The study used a dichotomous approach for scoring each item in the index of disclosure. Two types of statistical technique were used to measure the use of the Internet for the disclosure of financial and investor-related information by Saudi Arabian public companies. The first one mainly describes the data in general, for instance, numbers and percentages. The objective of the second is to find an explanation of variations in Internet financial reporting by Saudi public companies (correlation and multiple regression analysis were used). Finally, the chapter discussed some of the ethical issues and implications, such as anonymity, confidentiality, respondents' names and positions, which have not been identified.

Chapter 8 dealt with the impact of Internet financial reporting on users of financial information in Saudi Arabia. The impact of Internet financial reporting on users was measured by means of a questionnaire survey. Three major groups of stakeholders participated in this study. The descriptive analysis showed that the majority of the target sample were located in the western region (45%), 89% of the target sample held a bachelor's or postgraduate degree, 66% of them had majored in accounting or a subject related to business studies, 85% of the respondent were aged below 50; that, overall, the respondents considered the industrial sector the most preferable sector for their investment (44%) and that 71% of them preferred

to invest in local companies. In terms of Internet background questions, the finding revealed that most of the target group were fully experienced in the Internet (42%), had been using the web for over two years, and that 95% of them had access to the Internet either from home or work which meant they had easy access. In respect of the respondents' Internet skills, 66% of them considered their skills good or very good and in terms of Internet use per week, most of the respondents (71 percent) stated that they used the web more than 4 times on average each week. In terms of what types of information they looking for over the web, respondents considered business information (34%) the most attractive information. Chapter 8 also found that 50% of the respondents considered Tadawul (the official website for the Saudi Stock Market) is the alternative sources for most online financial information and 42% of them stated that financial information was the part of a company's website which most interested them.

The second part of Chapter 8 reported the explanatory analysis and results pertaining to the perceptions of respondents about various aspects of IFR in Saudi Arabia. These aspects mainly were: users' attitude to the Internet infrastructure in Saudi Arabia, users' information sources about companies in Saudi Arabia, respondents' perception about the advantages and disadvantages of IFR, respondents' attitude to the quality of IFR provided by Saudi public companies and the impact of Internet financial reporting on users' information needs.

In terms of respondents' attitudes to the Internet infrastructure in Saudi Arabia, the results showed that the different stakeholders, in general, appear dissatisfied with it. The result also revealed that users were satisfied with the Internet subscription process and less so with government control of the Internet (filtering). The results also revealed that there are significant differences between the selected groups in regard to Internet infrastructure (only in regard to Internet speed, availability of Internet service and government control over the Internet), as reflected by the high chi-square score and significance level.

In terms of users' sources of information on companies in Saudi Arabia, the result showed that there were significant differences between respondents in attitude (in all sources except market rumours and tips). However, respondents ranked the overall financial information sources provided in terms of their importance as follows: hard copy annual reports first, hard copy interim reports second, specialist advice third, direct contact with the company fourth, newspapers and magazines fifth, company websites sixth, specialised publications seventh, friends' advice eighth, market rumours and tips last. The results clearly showed that different interested parties in Saudi Arabia perceived some sources of information to be more valuable than others. Private investors have different views from the rest.

In terms of respondents' perceptions of the possible advantages of IFR, the results revealed that, in general, users identified the main advantages of IFR as follows: the Internet is considered an easy way to find financial information, a cheaper means of gathering information, it provides users with alternative sources of financial information, IFR makes it easy to download information for further analysis and it is an easy way to find information about a foreign company. This was clearly reflected by the mean scores, which registered above or around 4. With regard to whether there are any significant differences in opinion between the selected groups, the results indicated significant differences in opinion, as represented by the high chi-square score and significance level (Kruskal-Wallis test). Again, private investors' opinions were different from those of other professional groups.

In terms of respondents' perception about the possible disadvantages of IFR, the results revealed that Saudi users participating in this study, in general, slightly agreed with these statements: it is too difficult to distinguish between audited and unaudited material and to distinguish between mandatory and non-mandatory; it is not as complete as hard copy financial reports, hyperlinks make it difficult to know the boundaries of IFR and IFR is largely outdated and irrelevant. This was clearly reflected by the mean scores, which registered above or around 3. With regard to

whether there are any significant differences in opinion between the selected groups, the results revealed that there were indeed significant differences, as reflected by the high chi-square score and significance level.

In terms of the respondents' attitude to the quality of IFR provided by Saudi public companies, the results reported that the respondents' groups, in general, seem dissatisfied with the quality of Internet financial reporting provided by Saudi public companies. This was reflected by the mean scores, which registered around or less than 3. With regard to whether there were any significant differences of opinion between the respondents' groups in their perception of the quality of Internet financial reporting, the results indicate significant differences in opinion, as represented by a high chi-square score (except for the transmission speed of Saudi public companies' IFR, which is acceptable and the fact that Saudi public companies respond to email enquires within an acceptable time). Nevertheless, respondents information ranked overall the IFR quality provided by Saudi public companies as follows: Saudi public companies' IFR is a) easy to access, b) understandable and c) relevant.

The last part of Chapter 8 reported the impact of Internet financial reporting on users' information needs. The respondents were provided with a list of 23 items of alternative information which could be disclosed on a company website. These items were divided into three groups (general content items, credibility items and usability items). In terms of general items, the study found that the sample as a whole are recognized general content features to be important items in this regard, with a score of around or above 4. Respondents rated these features as follows: IFR in multiple currencies, a table of contents, email facilities to provide feedback and/or request further information and a link from the first page to IFR. In terms of credibility items, the study found that, in general, users recognized credibility features to be important items to disclose in the company website with a score of around or above 4. Respondents rated these feature as follows: hyperlinks to the auditor's home page, updating IFR weekly, providing the date when it last changed

and real-time IFR. In terms of usability items, the study found that the sample as a whole recognized those usability features to be important items to disclose in the company website which scored around or above 4. Respondents rated these feature as follows: IFR in a word-processing format, layered information to avoid information overload, IFR in PDF format and IFR in different ranges paged for each group of users.

Chapter 9 examined the actual use of the Internet for the disclosure of financial and investor-related information by Saudi public companies. The descriptive part of the study revealed that 95 (84%) of Saudi public companies had a website. The observation from this result is that: the Internet (website) is considered a very important approach for communication by companies. In the process of encouraging more extensive disclosures via the Internet, however, it is important to recognize that there also is a cost side to engaging in this practice. It behooves Saudi regulators to study the impact of such disclosures on companies' stock prices or trading volumes. The results found here (84%) were almost identical to the findings of some other studies around the world. Examples are Ettredge et al. (2002) in the U.S.A. (88%) and Xiao et al. (2004) in China (83%). The study also showed that 45 % (51) of the companies have a financial information section of some description. This indicates the low importance given by Saudi public companies to the need to make financial information available via the Internet, particularly via the web. The results found here (45%) are closely similar to the findings of some other studies around the world. Examples are Laymer & Tallberg (1997) in Finland (56%), Joshi & Al-Bastak (2000) in the banking sector of Bahrain (51%) and Xiao et al. (2004) in China (48%).

The financial disclosure index (167 items) was used to measure company disclosure. The index of disclosure consisted of two parts: a content (general content: 30 items) and credibility part (56 items); and a usability part (81 items). Overall, none of the sample companies provided/satisfied 100% of the 168 index items applicable to that company, thereby highlighting the opportunity for further

improvement in IFR practices. Furthermore, insight was enhanced by examining the scores for the dependent variables, focusing particularly on usability and each of the two content sections. On average, the companies performed better on general content and usability where they provided 33% and 31% of the items respectively. On average, companies scored low (21%) on credibility. In the light of these findings, it behooves Saudi regulators to explore why Saudi public companies are refraining from more extensive use of Internet financial reporting as a form of communication with the investing public.

Chapter 10 dealt with the impact of company characteristics on IFR. The empirical works reported in the literature suggested that the extent of IFR disclosure could be related to many company characteristics. This study was able to identify some systematic differences in the level of IFR disclosure of a sample of Saudi companies. The results of multivariate analysis showed that firm size is a significant explanatory variable for the total amount of IFR disclosed (overall, general content, credibility and usability). This finding is understandable since the larger companies (as represented by total assets) disclose more IFR information in their corporate websites than the smaller companies, perhaps because they have more resources to adopt IFR reporting and large firms have a greater need for funds and can therefore be expected to disclose at a higher level moreover, larger corporations may disclose more IFR in their corporate websites to enhance their public image.

The chapter also revealed that stock market listing has a significant association with the level of IFR overall, as well as the general content information disclosure on corporate websites. The effect of the stock market on corporate disclosure practice is understandable in the Saudi environment, for many reasons. First, IFR listed firms adopt voluntarily disclosure in order to attract and raise finance through the stock market. Second, IFR disclosure can also create an impression of greater transparency, which may be particularly important for the stock market. Third, additional disclosure may help to mitigate the potential conflicts between

shareholders and managers and satisfy the needs of users. Fourth, listed firms' shareholders are often dispersed across national borders. Internet financial reporting can reduce such information asymmetry by its instantaneous distribution and wide reach. Finally, listed companies are much more in the public eye than unlisted companies.

The study also revealed a significant and negative relationship between the proportion of institutional ownership of a company's shares and the level of IFR overall, as well as the credibility and usability of information disclosure on corporate websites. The effect of institutional ownership on corporate disclosure practice is understandable in the Saudi environment, for many reasons. First, a potential conflict of interests between management and shareholders is less common in companies with closely held shares. Second, the demand on companies with closely held shares to make public disclosures is weaker than on companies which have a wider ownership. Third, investors with large equity stakes can obtain information about the company from internal sources. They do not rely on published information only. Finally, investors with large equity stakes may have control rights through board membership and withhold unfavorable information from outsiders.

Profitability, type of industry, type of auditor, the government ownership, individual ownership, free float, and board structure appeared to be insignificant predictors for the Internet financial reporting practices of the sample companies.

10.3 Limitations of the study:

The perceptions of the users of IFR were measured through a questionnaire survey. Therefore, the usual limitations of the survey method apply to this study (Nachmias and Nachmias, 2004: Dillman, 2000: Rose, 1992: Sekaran, 1992). One of the common problems with surveys as a method is that respondents state their answers with no opportunity to offer help or explanation, because no personal contact is involved. Moreover, some of the respondents might give their answers

without fully considering their decision making needs. However, in practice, producing a good questionnaire is often difficult (Rose, 1992: Dillman, 2000).

Another limitation of the questionnaire survey is that the target group included is relatively small and may not therefore be representative of views across stakeholders as a whole. Further research could be undertaken to extend the sample and to delve deeper into the variety of stakeholders such as governmental officials and creditors.

With regard to private investors' sample, the research adopts convenient sampling techniques and snowball techniques because the shareholders' register is not up-to-date and is unreliable, while postal delivery is uncertain, in view of the non-availability of full and correct addresses for investors. Therefore, the only practical approach to carrying out this survey is by personal contact.

In regard to the analysis of the disclosure practices of corporate websites, the disclosure index includes a wide range of qualitative and quantitative information to help evaluation of disclosure practices. The items included in this study were selected with some care. Nevertheless, financial disclosure is an abstract concept which cannot be measured easily. A future study could extend the current index by examining a new set of information items.

Another limitation is that data collection from a website depends on the researcher's own browsing experience. Websites are usually large and contain many sections. Although the websites were carefully reviewed, some data may have been inadvertently missed. However, where the omissions appeared significant, they were checked and reviewed.

Furthermore, the study looked at a limited number of factors (eight independent variables) which might explain the reporting practices of companies on the Internet.

Other independent variables, such as leverage, could also be used to attempt to explain the amount of company disclosure.

Finally, the research was restricted to the 113 public Saudi companies. Thus the results may not be generalizable to all other Saudi companies. It may be better for further research to sample companies from a wider range, such as medium-sized and smaller companies.

10.4 Suggestions for future research:

This is about the first academic study to measure the effect of IFR on users of financial information in Saudi Arabia. Arguably, many of the areas covered warrant more specific in-depth investigation and research. Further empirical research could study what data disclosed online by reporting companies are used by users and what is therefore relevant to them. A web server log files analysis can be seen as the right measure for understanding the use of IFR. Information collected by cookies, which record the actions of a user interacting with a website, can also extend the analysis of information demand in future work.

Moreover, it was found that Saudi public companies disclose very little IFR. Further research could adopt an interview-based approach to discuss with the information disseminators the causes of the non-disclosure of some of the information items identified in this study.

As mentioned earlier, IFR has a significant effect on the credibility of financial information. Further research could be adopted to examine whether different channels of disclosure of accounting information (IFR and hard copy reports) have any effect on the investors' decisions.

The corporate disclosure process is a complex one. Many parties affect and are affected by this process. Future research may consider explanatory variables specific to the IFR environment, which may provide further insight into IFR

practices. Such factors may include independent directors, the ages and levels of education (in general and in computing skills) of the company director/managers, the attitude of management to IT and new ideas, the age and strategic position of each company in its industry, the company's location, and the stage in the life cycle of the company's major products. These factors may influence the voluntary use of the Internet for financial reporting purposes.

In order to fill the existing gap about the status of IFR in Saudi Arabia, the present study adopts a more comprehensive approach. Further research may concentrate on some aspects of IFR and not others.

Finally, future research might extend the scope of this study by involving other countries in comparative studies. Nevertheless, it is hoped that the results of this study will provide an insight into the online disclosure practices of Saudi Arabia as a starting point for further research in this area and a measure of users' perceptions.

11.5 The future implications of the IFR:

This study is perhaps the first to explore IFR in the Saudi Arabia. Thus, the results will increase accounting knowledge about perceptions of Saudi users on disclosure of IFR and enhance our awareness of IFR disclosure. This knowledge will help the parties involved in financial reporting (such as auditors, preparers, regulators, and users) to formulate policies and to adjust their visions about IFR. The project will help regulators and standard setters, for example, to predict the need to change the regulatory framework or replace existing recommendations. Saudi regulators also need to explore why Saudi public companies are refraining from more extensive use of Internet financial reporting as a form of communication with the investing public. Study findings unveil a number of areas where Saudi companies need to voluntarily focus on improving IFR. It will also help reporting companies to develop a reporting strategy to satisfy users' information needs better. For example, companies may find it useful to develop an interactive communication

strategy. Finally auditors, too, will benefit from such research. The need to redefine the value of the audit is highlighted as is the need to develop more sophisticated audit techniques.

- American Accounting Association (AAA), 1966, A Statement of Basic Accounting Theory. Florida, Sarasota: AAA.
- A List Apart Magazine and the authors, 2006, What Is Web Accessibility, Retrieved fed. 11, from A List Apart Magazine and the authors web site: www.alistapart.com.
- Abate, J., 1999, *Inventing the Internet*, 2nd, MIT Press, London.
- Abbott, L. J. and Parker, S., 2000, Auditor selection and Audit committee characteristic, *A Journal of Practice & Theory*, 192(2) fall.
- Abdelsalam, M., 1990, The Use of Corporate Financial Reports by Investors in Saudi Arabia, *Advances in International Accounting*, 3, 25-39.
- Abdelsalam, O., D. L. Street, and S. M. Bryant, 2004, Corporate Internet reporting by BSE Sensex companies, *Indian Accounting Review* (December) 8 (2): 1-18.
- Abdelsalam, O., Street, D. & Bryant, S., 2006, An examination of Internet reporting by London-listed companies, *European Accounting Association conference*, Dublin, March.
- Abdelsalam, O. & Street, D., 2007, Corporate governance and the timeliness of corporate internet reporting by U.K. listed companies, *Journal of International Accounting, Auditing and Taxation*, 16, 111-130.
- Ajinkya, B., Bhojraj, S., Sengupta, P., 2005, The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of Accounting Research* 43 (3), 343-376.
- Arcay, M. R., & Vázquez, M.F., 2005, Corporate Characteristics, Governance Rules and the Extent of Voluntary Disclosure in Spain, *Advances in Accounting*, 21, 229-331.
- Arnoud, W., Macey, J., and Schmeits, A., 2005. Towards a New Theory of Corporate Governance Objectivity versus Proximity, Retrieved July 14, from A web site: www.ssrn.com.
- Internet society, 2005, A Brief History of the Internet, Retrieved July 17, from Internet society web site: www.isoc.org.
- Abdulaziz M. Al-Dukheil, 2000, *The Banking System and its performance in Saudi Arabia*, Saqi Books, London.
- Abrahamson, E., 1991, Managerial fads and fashions: The diffusion and rejection of innovations, *Academy of Management Review*, 16 (3), 586-612.
- Abu Al-Azm, F., 2001, Credibility of financial reporting on the Internet and Auditor responsibility, *Accountancy Research*, 5(1):1-22.
- Abu-Nassar, M., & Rutherford, B.A., 1995, Preparers' attitudes to financial reporting in less developed countries with moderately sophisticated capital markets: The case of Jordan, *The International Journal of Accounting*, 30(2): 129-138.

- Adams, C. and Frost, G., 2003, Stakeholders Engagement Strategies: Possibilities for the Internet?, The Institute of Chartered Accountants of Scotland.
- Adamson G, 2004, The Mixed Experience Of Achieving Business Benefit From The Internet-A Multi-Disciplinary Study, Thesis RMIT University, Australia.
- Ahmad, S. N., 1988, The Role of Company Annual Reports for Investments Analysis in a Developing Country: the case of Malaysia, Ph.D. Thesis, University of Stirling.
- Akerlof, G., 1970, The market for 'lemons': Quality, uncertainty and the market mechanism, *Quarterly Journal of Economics*, 89 (August): 488-500.
- Ajeeb Research Unit, 2005, Arabic Language, Retrieved 25 May, from Ajeeb web site: www.ajeeb.com
- Ajeeb Research Unit, 2001a, Number of Internet Subscribers and Users in the Arab Region, Retrieved May 05, from Ajeeb website at: www.ajeeb.com.
- Ajeeb Research Unit, 2001b, Arabs Increasingly Demand Web Content in Native Language, Retrieved July 05, from Ajeeb website at: www.ajeeb.com.
- Allam, A. and A. Lymer., 2003, Developments in Internet financial reporting: Review and analysis across five developed countries, *International Journal of Digital Accounting Research* 3 (6), 165-200.
- Allam, A., 2006, Developments in Internet financial reporting: Review and analysis across five developed countries, University of Birmingham unpublished PhD thesis, Birmingham, UK.
- Aoun, B., 1996, Agent Technology in Electronic Commerce and Information Retrieval on May 13, from: <http://www.scu.au>.
- Al-Furaih, I., 2003, Present and Future of Internet Setup in KSA, Retrieved July. 13, from Internet service unit website at: www.isu.nt.sa.
- Al-Furaih, Ibraheem, 2002, The Status of the Internet in Saudi Arabia, Retrieved March 25, from Internet service unit website at: www.isu.nt.sa.
- Al-Hajree I., 2005, The History of the Internet in Saudi Arabia, Obeikan bookshop, Riyadh.
- Al-Hayat newspaper, 2004, The Internet in Saudi Arabia, September 12.
- Almahmoud, S.A., 2001, The Usefulness of Annual Report Information to Participants in the Saudi Stock Market, Ph.D. Thesis, University of Cardiff.
- Al-Moataz, E. S., 2003, The effectiveness of Audit Committees within Saudi Corporations: An Empirical investigation, unpublished PHD Thesis, Loughborough, UK.
- Al-modahki, J., 1996, An empirical study of accounting disclosure development in the Kingdom of Saudi Arabia, unpublished PHD Thesis, University of Exeter.
- Al-Qahdhi, M., 2002, Internet filtering, *Science & Technology magazine* issue 64.

- Alrazeen, A. M., 1999, The Quality of Annual Financial Reporting of Saudi Corporations: Users' Perceptions and Companies' practices, Ph.D. Thesis, University of Cardiff.
- Al-Razeen, A and Karbhari, Y., 2004, Interaction between compulsory and voluntary disclosure in Saudi Arabian corporate annual reports, *Managerial Auditing Journal*, 19(3), 351 - 360
- Al-Sharq Al-Awsat newspaper, 2004, Internet users in Saudi Arabia, May 2.
- Alterman, J. B., 1998, New Media New Politics? From Satellite Television to the Internet in the Arab World.
- Al-Zoman, A., 2001, The Internet in Saudi Arabia, Retrieved March 11, from Internet service unit web site: www.isu.nt.sa.
- Al-Zoman, A., 2002, Internet filtering, *Science & Technology magazine* issue 64.
- Anderson, R., 1981, The usefulness of accounting and other information disclosed in annual corporate reports to institutional investors in Australia, *Accounting and Business Research*, (Autumn), 259-265.
- Anderson, R. and Epstein, M., 1995, The usefulness of annual reports, *Australian Accountant*, April: 25-8.
- Arab Advisors Group, 2002, Bandwidth Increasing in Middle East. Retrieved October 11, from Nua web site: www.nua.ie.
- Arthur Andersen, 2001, It's Raining News: A Study of More Frequent Reporting by Larger Companies, June, London.
- Ashbaugh, H., Johnston, K. M., and Warfield, T. D., 1999, Corporate Reporting on the Internet, *Accounting Horizons*, 13 (3), 241-258.
- Babbie, E. and Mouton, J., 2001, *Practice of Business and Social Research*, Oxford University Press; South African edition.
- Bailey, K., 1982. *Method of Social Research*, New York, The Free Press.
- Bailey, K., 1994. *Method of Social Research*, New York, The Free Press.
- Baker, K. D. and Haslem, J. A., 1973, Information Needs of Individual Investors, *Journal of Accountancy*, November, 64-69.
- Baldwin, A. and Williams, S., 1999, The future of intelligent agents in European financial reporting, *European Accounting Review*, 8 (2), 303-319.
- Baliga, B. R., & Moyer, R. C., 1996, CEO duality and firm performance: What's the fuss, *Strategic Management Journal*, 17, 41-53.
- Ba-Owaidan, M. A., 1994, The contribution of Accounting Information to Investor Decision in the Saudi Stock Market, Ph.D. Thesis, the University of Hull.
- Bagasaw, K., 2000, Financial reporting on the Internet, *Accountants' Digest*. Issue 429, (The Institute of Chartered Accountants of England and Wales)

Baginski, S.; HASSELL, J. and KIMBROUGH, M., 2004, Why Do Managers Explain Their Earnings Forecasts, *Journal of Accounting Research* 42, 1-29.

Barton, A.D., 1982, Objectives and Basic concepts of Accounting, Australian Accounting Research Foundation, Melbourne.

Barrett, A., 2002, Slammed! Investors are telling companies that creative accounting will no longer fly, *Business Week* (March 4), 34.

Bartlett SA, Chandler RA., 1997, The corporate report and the private shareholder, *British Accounting Review*, 29(3), 245– 61.

Baysinger. B.B., & Hoskisson, R.E., 1990, The composition of board of directors and strategic control: Effects on corporate strategy, *Academy of Management Review*. 15. 72-87.

Beasley, M., 1996, An empirical analysis of the relation between the board of director composition and financial statement fraud, *Accounting Review*, 71, 443–465.

Beattie, V.A., 2000, The future of corporate reporting: a review article, *Irish Accounting Review*, 7(1), 1-36.

Beattie, V. ed., 1999, *Business Reporting: The Inevitable Change?* Edinburgh: Institute of Chartered Accountants of Scotland.

Beattie V, Pratt K., 2001, *Business reporting: harnessing the power of the Internet for users*, Edinburgh, ICAS; 2001.

Bell, J., 1997, *Doing Your Research Project*, Buckingham, Open University Press.

Bell, H., and N.K.H. Tang., 1998, The effectiveness of commercial Internet web sites: A user's perspective. *Internet Research: Electronic Networking Applications and Policy*, 8(3), 219-28.

Bence, D., Hapeshi, K., Hussey, R., 1995, Examining investment information sources for sophisticated investors using cluster analysis, *Accounting and Business Research*, 26(1), 19–26.

Benjamin, J.J., Stanga, K.G., 1977, Differences in disclosure needs of major users of financial statements, *Accounting and Business Research*, 7 (26), 187–192.

Berg, S.V. and S.K. Smith, 1978, CEO and Board Chairman: A Quantitative Study of Dual v. Unitary Board Leadership, *Directors and Boards*, 3, 34–49.

Berners-Lee, T., 1990, *World Wide Web: Proposal for a Hyper Text Project*, CERN report.

Benston, G., Bromwich, M., Litan, R., and Wagenhofer, A., 2003, *Following the Money: the Enron Failure and the State of Corporate Disclosure*, AEI-Brookings Joint Centre for Regulatory Studies, the American Enterprise Institute for Public Policy Research.

BITS, 2001, *Cost of Access: Arabs and West*. Retrieved July 11, from web site: www.saudi-isps.2bits.com.

- Blue Ribbon Committee, 1999, report and recommendations of Blue Ribbon Committee on improving the effectiveness of Corporate Audit Committees, *The Business Lawyer*, 54(3) May.
- Bollena, L., Hassink, H., & Bozicb, G., 2006, Measuring and explaining the quality of Internet investor relations activities: a multinational empirical analysis, *International Journal of Accounting Information Systems*, 7(4), 273-298.
- Botosan, C.A., 1997, Disclosure Level and Cost of Equity Capital, *Accounting Review*, 72, 323-349.
- Bradbury, M.E., 1991, Characteristics of firms and voluntary interim earnings disclosure: New Zealand evidence, *Pacific Accounting Review* 3, 37-62.
- Brennan, N. and Hourigan, D., 1999, Corporate Reporting on the Internet by Irish companies, *Accountancy Ireland*, 30(6), 18-21.
- Brickley, J. A., Coles, J. L., & Karrell, G., 1997, Leadership structure: Separating CEO and chairman of the board, *Journal of Corporate Finance*, 3, 189- 220.
- Brickley, J.A., Coles, J.L., Terry, R.L., 1994, Independent NEDs and the adoption of poison pills, *Journal of Financial Economics* (June), 371-390.
- Bryman, A., and Cramer, D., 1997, *Quantitative Data Analysis with SPSS for Windows: A Guide for social Scientists*, Routledge: London, 117.
- Brynjolfsson, E., and S. Yang, 1996, Information Technology and Productivity: A review of the literature, *Advances in Computers*, 43, 179-214.
- Burkart, M., D. Gromb and F. Panunzi, 1997, Large Shareholders, Monitoring, and the Value of the Firm, *Quarterly Journal of Economics* 112, 693-728.
- Bury, L., 1999, On line and on time, *Accountancy*, (August), 28-29.
- Bushee, B., & Noe, C., 2000, Corporate disclosure practices, institutional investors, and stock return volatility, *Journal of Accounting Research*, 38, 171-202.
- Bushman, R.M. and Smith, A.J., 2001, Transparency, Financial Accounting Information and Corporate Governance, *Economic Policy Review*, 9 (1), 65-87.
- Butler, M. Kraft, A. & Weiss, I. S., 2002, The effect of reporting frequency on the timeliness of earnings: The cases of voluntary and mandatory interim reports (Working Paper), Rochester, NY, William E. Simon Graduate School of Business.
- Cadbury, A. Sir., 2002, *Corporate Governance and Chairmanship: A personal view*, Oxford University Press Inc: USA.
- Cadbury Committee, 1992, *Report of the Committee on Financial Aspects of Corporate Governance*, Gee Publishing Ltd: London.
- Capital Market Authority (CMA), 2006, *Saudi Stock Market*. Riyadh: Capital Market Authority.
- Carey, P. and J. Parker., 2006, *Improving Corporate Transparency: More Data in NOT the answer*, Retrieved July 11, from www.thomson.com.

Carmines, E. G. and Zeller, R. A., 1979, Reliability and Validity Assessment, Stage Publication, USA.

Carver, J., 1990, Boards that Make a Difference, Jossey-Bass, San Francisco, CA.

Chaganti, R. S., Mahajan, V., & Sharma, S., 1985, Corporate board size composition and corporate failures in retailing industry, *Journal of Management Studies*, 22, 400-417.

Chang, L. S. and Most, K. S., 1985, Investors Uses of Financial Statements: An Empirical Study, *Singapore Accountant*, 12, 83-91.

Chang, L. S. and Most, K. S., 1985, The Perceived Usefulness of Financial Statement for Investors Decisions, Florida International University Press, Miami.

Chau, P.Y., 1996, An empirical assessment of Modified Technology Acceptance, *Journal of Management Information Systems*, 13, 2.

Chau, G and Gray, S., 2002, Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore, *The International Journal of Accounting*, 37, 247-265.

Chen, T., March, 2002, An Automatic Searching and Publishing System on Internet for Geo-Spatial Information, Workshop of ISPRS WG VII/1, Dar essalaam, Tanzania, CDROM.

Cheng, E. C. & Courtenay, S. M., 2006, Board composition, regulatory regime and voluntary disclosure, *The International Journal of Accounting*, 41(3), 262-289.

Chenhall, R. H. and Juchau, R., 1977, Investors Information Needs An Australian Study, *Accounting and Business Research*, Spring, 111-119.

Chiang, H., 2005, An Empirical Study of Corporate Governance and Corporate Performance, *Journal of American Academy of Business*, Cambridge, Hollywood, 6(1), 95-102.

Chow, C.W., Wong-Boren, A., 1987, Voluntary financial disclosure by Mexican corporations, *The Accounting Review* 62 (3), 533-541.

Churchill Jr, G. and Iacobucci, D., 2002, Marketing Research: Methodological Foundations, 8th edition, Harcourt Collage Publishers: USA.

CIA World Fact Book, 2001, Internet in the Arab countries, Retrieved July 22, from CIA web: www.c-i-a.com.

CIA, 2004, Computer Industry Almanac, Retrieved Marsh 16, from CIA web: www.c-i-a.com.

Clifford, P. and Evans, R., 1997, Non-executive directors: A question of independence, *Corporate Governance: An International review*, 5(4) October.

Collier, P., 1993, Factors affecting the formation of audit committees in major UK listed companies, *Accounting and Business Research*, 23 (91), 421-430.

Cooke, T.E., 1992, The impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations, *Accounting and Business research* 22 (87), 229-237.

Cooke, T.E. and R.S.O. Wallace, 1989, Global surveys of corporate disclosure practices and audit firms: A review essay, *Accounting and Business Research* 20 (77), 47-58.

Cooper, D. R. and Emory, C. W., 1995, *Business Research Methods*, 5th ed., Irwin, USA.

Core, I. Holthausen, Rand Larcker, D., 1999, Corporate Governance, CEO Compensation, and Firm Performance, *Journal of Financial Economics*, 51, 371-406.

Craig Van Slyke , Hao Lou , John Day, 2003. Intentions to use groupware: the influence of users' perceptions, *Advanced topics in information resources management*, Idea Group Publishing, Hershey.

Craswell, A. T. and Taylor, S. L., 1992, Discretionary disclosure of reserves by oil and gas companies: an economic analysis, *Journal of Business, Finance, and Accounting*, 19, January, 295-309.

Cutting, B. and Kouzmin, A., 2000, The emerging patterns of power in corporate governance: back to the future in improving corporate decision making, *Journal of Managerial Psychology*, 15(5), 112-119.

Czaja, R. and Blair, J., 1996, *Doing Survey A Guide to Decisions and Procedures*, Pine Forge Press, London.

Dahya J., McConnell J.J. and Travlos N.G., 2002, The Cadbury Committee, Corporate Performance and Top Management Turnover, *Journal of Finance*, 57 (1), 461-483.

Dahya, J., Lonie, A.A., Power, D.M., 1996, The case for separating the roles of Chairman and CEO: An analysis of stock market and accounting data, *Corporate Governance—An International Review*, 4 (1), 71-77.

Dahya J., Lonie A.A. and Powell R., 1998, Ownership Structure, Firm Performance and Top Executive Change: An Analysis of UK Firms, *Journal of Business, Finance and Accounting*, 25 (9) & (10): 1089-1118

Dalton. D. R. & Kesner. F., 1987, Composition and CEO duality in boards of directors: An international perspective, *Journal of International Business Studies*, 28, 33-42.

Datta, S., 2000, Corporate Governance: role of audit committee, *The Management Accounting*, 35(7) July.

Davis, F. D., 1986, A technology Acceptance Model for Empirically Testing New End-user Information System: Theory and Results, unpublished PHD dissertation, Cambridge.

Davis, F. D., 1989, Perceived Usefulness, Perceived Ease of Use, and Users Acceptance of Information Technology, *MIS Quarterly*, 13(3), 65-77.

Davis, F. D., Bagozzi, R. P., and Warshaw, P.R., 1989, Users Acceptance of computer Technology: A comparison of Two theoretical Models, *Management Science*, 35(8), 92-110.

DeAngelo, L.E., 1981, Auditor size and audit quality. *Journal of Accounting and Economics*, 3 (December), 183-199.

Debreceeny R, Gray, G and Barry, T., 1998, Accounting Information in a Networked World - Resource Discovery, Processing and Analysis, Paper presented at the 1998 American Accounting Association Annual Conference, New Orleans.

Debreceeny, R., Gray, G.L., Rahman, A., 2005, The determinants of Internet financial reporting. *Journal of Accounting and Public Policy*, 21, 371-394.

Dechow, P.M. and R.G. Sloan., 1991, Executive Incentives and the Horizon Problem: An Empirical Investigation, *Journal of Accounting and Economics*, 14 (1), 51-89.

Deegan, C., 2000, *Financial Accounting Theory*, McGraw Hill Book Company, Sydney.

Deegan, C., Gordon, B., 1996, A study of the environmental disclosure practices of Australian companies, *Accounting and Business Research*, 26 (3), 187-199.

Deegan, -C., and Hallam, A., 1991, The Voluntary Presentation of Value Added Statements in Australia: A Political Cost Perspective, *Accounting and Finance*, 31(1), 1-21.

Deegan, C., M. Rankin and J. Tobin, 2002, An Examination of the Corporate Social and Environmental Disclosures of BHP from 1983-1997: A Test of Legitimacy Theory, *Accounting, Auditing and Accountability Journal*, 15 (3), 312 - 343.

Deller, D. and Stubenrath, M. and Weber, C., 1999, A survey on the use of the Internet for investor relation in the USA, UK and Germany *European Accounting Review*, 8(2), 351-364.

Denzin, N. K. and Lincoln, Y. S., 2000, *Handbook of Qualitative Research*, Second Edition, Sage Publications, London.

De Vaus, D. A., 1996, *Survey in Social Research*, Fourth Edition, University College London, London.

Diamantopoulos, A. and Schlegelmilch, B.B., 2000 , *Taking the Fear Out of Data Analysis*. Business Press: Thomason Learning, Singapore, 34.

Dillman, D., 2000, *Mail and Internet survey*, New York, John Wiley & Sons, Inc.

Dillon, R. F., 2005, Usability testing: myths, misconceptions and misuses, Retrieved Jan. 27, from Hot Topics Web site: www.carleton.ca.

DiMaggio, P., Powell, W., 1983, The iron cage revisited: institutional isomorphism and collective rationality in organizational fields, *American Sociological Review*, 48, 147-160.

DIT, 2000, Internet Users in the Arab World. Retrieved Feb. 22, from DIT Web site: www.ditnet.co.

- Dockery, E., Herbert, W. and Taylor, K., 2000, Corporate Governance, Managerial Strategies and Shareholder Wealth Maximisation: A Study of Large European Companies, 26(9).
- Doyle, P., 1998, Marketing, Management and Strategy, Prentice Hall Europe
- DTI, 2002, Modernising company law, UK7 Department of Trade & Industry.
- Dunn, D., 1987, Director's aren't doing their jobs, Fortune, March, 117-119.
- Dye, R., 1993, Accounting standards, legal liability, and auditor wealth, Journal of Political Economy, (October), 887-914.
- Eccles, R.G. and Mavrinac, S.C., 1995, Improving the Corporate Disclosure Process', Sloan Management Review, 36(4), Summer, 11-25.
- Eccles, R.G., Hertz, R.H., Keegan, M. & Phillips, D.M.H., 2001, The Value Reporting Revolution Moving Beyond the Earnings Game, Wiley, USA.
- Eisenhardt, K., 1989, Agency theory: An assessment and review, Academy of Management Review, 14, 57-74.
- Eisenhardt, K., 1988, Agency- and Institutional-Theory Explanations: The Case of Retail Sales Compensation, Academy of Management Journal, 31(3), 488-511.
- El-Gazzar, S.M., 1998, Predisclosure information and institutional ownership: A cross-sectional examination of market revaluations during earnings announcement periods, The Accounting Review, 73 (1), 119-129.
- Elliott, R., 1996, Effect of Information Technology on Assurance Service Marketplace, Special Committee on Assurance Services of the American Institute of Certified Accountants.
- Elliott, R., 2002. Twenty-first century assurance, AUDITING: A Journal of Practice & Theory, 21 (1), 139-146.
- Elliott, R. K., 1991, The third wave breaks on the shores of accounting, Accounting Horizons, (December), 61-97.
- Emory, W., 1980, Business Research Method, Illinois, Richard D. Irwin, INC.
- Eng, L. and Y. Mak., 2003, Corporate governance and voluntary disclosure, Journal of Accounting and Public Policy, 22, 325-345
- Epstein, M.J., Freedman, M., 1994, Social disclosure and individual investor, Accounting Auditing and Accountability Journal, 7 (4), 94-109.
- Epstein, M.J. and K.G. Palepu, 1999, What financial analysts want, Strategic Finance, 80(10), 48-52.
- Ettredge, M., V. J. Richardson, and S. Scholz, 2001, An emerging model of Website design for financial disclosures, Communications of the ACM, 44 (11), 51-55.
- Ettredge, M., V. J. Richardson, and S. Scholz, 2002, Dissemination of information for investors at corporate Websites, Journal of Accounting and Public Policy, 21, 357-369.

- Faccio, M. and M.A. Lasfer., 2000, Managerial Ownership, Board Structure and Firm Value: The UK Evidence, Working Paper.
- Fama, E.F. and M.C. Jensen., 1983, Separation of Ownership and Control, *Journal of Law and Economics* 88 (2), 301-325.
- Financial Accounting Standards Board (FASB), 2000, Business Reporting Research Project: Electronic Distribution of Business Reporting, Steering Committee Report Series, Retrieved August 06, from FASB website: www.fasb.org.
- Fink, A., 1995, *How To Ask Survey Questions*, London, Sage Publication.
- Fink, A., 1995, *How To Sample in Surveys*, London, Sage Publication.
- Finkelstein, S., D_Aveni, R.A., 1994, CEO duality as a double-edged sword: How boards of directors balance entrenchment avoidance and unity of command, *Academy of Management Journal*, 37 (5), 1079-1108.
- Firth, M. A., 1979, The Impact of Size, Stock Market Listing and Auditors on Voluntary Disclosure in Corporate Annual Reports, *Accounting and Business Research*, 9(39), (Autumn), 273-280.
- Fisher, R., P. Oyelere, and F. Laswad, 2004, Corporate reporting on the Internet: Audit issues and content analysis of practices, *Managerial Auditing Journal* 19 (3), 412-440.
- Flanders, V., 2001, Top 10 Intranet design mistakes. *Intranet Journal*, Retrieved Oct. 27, from Intranet Journal web site: www.intranetjournal.com.
- Flynn, G. and Gowthroe, C., 1997, Volunteering data on the World Wide Web. A study of financial reporting from stakeholder perspective, Paper presented at the first Financial Reporting and Business Communication Conference, Cardiff, July 3-4.
- FNC Resolution, 2004, Definition of the Internet, Retrieved May 23, from Intranet Journal web site: <http://www.itrd.gov>.
- Forker, J. J., 1992, Corporate governance and disclosure quality, *Accounting and Business Research*, 22 (86), 111-124.
- Foster, G., 1979, Bailiff and the capital market, *Journal of Accounting research*, 17(1), 262-274.
- Foster, G., 1987, Rambo IX: Bailiff and the capital market, *Journal of Accounting, Auditing and Finance*, 2, 409-431.
- French, T., 1998, Using Perceived Ease of Use and Perceived Usefulness to Predict Acceptance of the World Wide Web, *Computer Networks & ISDN system*, 30, 1-7.
- Fuccella J., & Pizzolato, J., 1998, Creating Web site designs based on user expectations and feedback, *ITG Newsletter* (6).
- Gall, D., Gall, J., Borg, W., 2003, *Education Research An introduction*, seven editions, Allyn and Bacon, Boston
- Geerings J, Bollen LHH, Hassink HFD., 2003, Investor relations on the Internet: a survey of the Euro next Zone, *European Accounting Review*, 12(3), 567-79.

- Gefen, D., Karahanna, E., Straub, D., 2003, Trust and TAM in online shopping: an integrated model. *MIS Quarterly* 27(1), 51-90.
- Gefen, D., and Straub, D. W., 1997, Gender Differences in the perception and Use of E-mail an Extension to Technology Acceptance Model, *MIS Quarterly*, 21(4), 43-61.
- Gerald, D., Gregory, M. and Younk, A., 1999, The impact of technology on the financial and business reporting, The Canadian Institute of Chartered Accountants.
- Gill, J. and Johnson, P., 1997, *Research Methods for Managers*, London, Paul Chapman Publishing.
- Gigler, F., 1994, Self-enforcing voluntary disclosure, *Journal of Accounting Research* 32(2), 224-240.
- Gillham, B., 2000, *Developing Questionnaire*, New York, Continuum Publishing.
- Gladstein, D. G. (1984), Groups in context: A model of task group effectiveness, *Administrative Science Quarterly*, 29, 499-517.
- Global Reach, 2004, Global Internet Statistics by Language, Retrieved May 23, from Global Reach web site: www.glreach.com.
- Gogoi, P., 2001, Making bad news pay. *Business Week* (September 3), 24.
- Goiden, B. R., & Zajac, E. J., 2001, When will boards influence strategy? Inclination \times Power = Strategic change, *Strategic Management Journal*, 22, 1087-1117.
- Gowthorpe, C., 2004, Asymmetrical dialogue? Corporate financial reporting via the Internet, *Corporate Communications: An International Journal*, 9(4), 283-293
- Gowthorpe, C. and Amat, O., 1999, External reporting of accounting and financial information via the Internet in Spain, *The European Accounting Review*, 8(2), 365-371.
- Graven, B. Marston, C., 1999, Financial reporting on Internet by leading UK companies' *European Accounting Review*, 8(2), 321-333.
- Graves, S. and Waddock, S., 1994, Institutional ownership and corporate R&D in the computer industry, *Academy of Management Journal*, 3(12), 121-134. .
- Gray, G. and R. Debreceeny., 1997, Corporate reporting on the Internet: Opportunities and challenges, Paper presented at the Seventh Asian-Pacific Conference on International Accounting Issues in Bangkok, Thailand.
- Greenlaw, R., and Hepp, E., 2002, *Internet and the World Wide Web*, 2ed edition, McGraw-Hill: New York.
- Grossman, S., Hart, O., 1980, Disclosure laws and takeover bids, *Journal of Finance* 35, 323-334.
- Gul, F. A., & Leung, S., 2004, Board leadership, outside directors' expertise and voluntary corporate disclosures, *Journal of Accounting and Public Policy*, 23, 351-379.
- Gzaja, R. and Blair, J., 1996, *Doing Survey A Guide to Decisions and Procedures*, London, Pine Forge Press.

- Haniffa, R. and Cooke, T., 2002, The impact of culture and governance on corporate social reporting, *Journal of Accounting and Public Policy*, 24, 391–430.
- Harrison, P., and Harrell, A., 1993, Impact of "Adverse Selection on Managers' Project Evaluation Decisions, *Academy of Management Journal*, 36 (3), 635-643.
- Hassell, J. R. Jennings, and D. Lasser, 1988, Management earnings forecasts: their usefulness as a source of firm-specific information to security analysts. *Journal of Financial Research* 11(4), 303-319.
- Hassan, S., Jaffar, N., and Johi, S., 1999, Financial Reporting on the Internet By Malaysian Companies: Perceptions and Practices", *Asia-Pacific Journal of Accounting*, December, 299-319.
- Healy, P, A. Hutton and K. Palepu., 1999, Stock performance and intermediation changes surrounding sustained increases in disclosure. *Contemporary Accounting Research* 16 (3), 485-520.
- Healy, P. and K. Palepu., 2001, Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting & Economics*, 31, 405-440.
- Healy, P. and K. Palepu., 1995, The effect of firms' financial disclosure strategies on stock prices, *Accounting Horizons* 7 (1), 1-11.
- Hedlin, P., 1999, The Internet as a vehicle for investor relation: Swedish case, *The European Accounting Review*, 8(2), 373-381.
- Hermalin, B. E., and M. S. Weisbach, 1998, Endogenously Chosen Boards of Directors and Their Monitoring of the CEO, *American Economic Review*, 88, 96-118.
- Hodge, F. D., 2001, Hyperlinking unaudited information to audited financial statements: Effects on investor judgments, *The Accounting Review*, 76 (4), 675-691.
- Hoinville, G., Jovell, R., and associates, 1978, *Survey Research Practice*, Heinemann Education Books, London.
- Hossain, M., M. H. B. Perera, and A.R. Rahman., 1995, Voluntary disclosure in the annual reports of New Zealand companies, *Journal of International Financial Management and Accounting*, 6(1), 69-87.
- Hossain, M., Tan, L.M., Adams, M., 1994, Voluntary disclosure in an emerging capital market: some empirical evidence from companies listed on the Kuala Lumpur stock exchange, *The International Journal of Accounting*, 29 (4), 334-351.
- Hirst, D., Koonce, L. and J. Miller, J., 1999, The joint effect management's prior forecast accuracy and form of its financial forecasts on investor judgments, *Journal of accounting Research*, 37 (supplement), 1-24.
- Huck, S. W. and W.H. Cormier, 1996, *Reading statistic and Research*, Happer Collins College Publishers, New York.
- Hunt, H. G. III & Hogler, R. L., 1990, Agency Theory as Ideology: a Comparative Analysis Based on Critical Legal Theory and Radical Accounting, *Accounting, Organizations and Society*, 15(5), 437–454.

- Hussey, J. and Hussey, R., 1997, *Business Research: A Practical Guide for Undergraduate and postgraduate Students*, Palgrave Publishers Ltd: UK.
- Hussey, R., Gulliford, J. and Lymer, A., 1998, *Corporate Communication and Financial Reporting on the Internet*, London: Deloitte & Touche Chartered Accountants.
- Hutton, A., G. Miller, and D. Skinner, 2003, The role of supplementary statements with management earnings forecasts, *Journal of Accounting Research*, 41, 867-890.
- Hwang, Gyu-heui, 2000, *Diffusion of Information and Communication Technologies and Changes in Skills*, Electronic Working Paper No. 48, Sussex: SPRU.
- IANA, 2004, Internet Assigned Numbers Authority, Retrieved 28 May, from IANA web site: www.iana.org.
- Hybels, R. C., 1995, On Legitimacy, Legitimation, and Organizations: A Critical Review and Integrative Theoretical Model, *Academy of Management Journal*, Special Issue: Best Papers Proceedings, 241 - 245.
- IBM Corporation, 1998, *Creating web site designs based on user expectations and feedback*. Retrieved Feb. 25, from internetworking Web site: www.internettg.org.
- ICANN, 2005, The Internet Corporation for Assigned Names and Number, Retrieved 28 May, from ICANN web site: www.icann.org.
- IDN Software Developer Consortium, 2004, *Adoption of Internationalized Domain Names (IDNs) in Applications*, eMarketer Publication.
- IFAC., 2003, *Rebuilding Public Confidence in Financial Reporting: An International Perspective*, Presented at the Second Taipei Corporate Governance Forum, Taipei, China.
- Igarria, M., Guimaraes, T., and Davis, G. B., 1995, Testing the determinants of Microcomputer Usage via a Structure Equation Model, *Journal of Management Information Systems*, 11(4), 67-83.
- Ing-Long Wu , Jian-Liang Chen, 2005, An extension of trust and TAM model with TPB in the initial adoption of on-line tax: an empirical study, *International Journal of Human-Computer Studies*, 62(6), 784-808.
- Inchausti, B.G., 1997, The influence of company characteristics and accounting regulation on Information disclosed by Spanish firms, *European Accounting Review*, 6 (1), 45-68.
- Interactive Bureau, 2006, *FTSE 100's Website are still wallowing in mediocrity*, Retrieved June 17, from www.iablondon.com/news.
- International Telecommunications Union, 2004, *world internet usage and population statistic*, Retrieved 13 May, from International Telecommunications Union web site: www.itu.int.
- International Telecommunications Union, 2006, *world internet usage and population statistic*, Retrieved 15 May, from International Telecommunications Union web site: www.itu.int.

- Internet Al Alam Al Arabi, 1999, Internet Users in the Arab World 1998–1999, Retrieved 10 July, from Internet Al Alam Al Arabi web site: www.2bits.com.
- Internet Arab World (IAW), 2004, E-commerce in the Arab World–An Overview, Retrieved 06 Feb, from Internet Al Alam Al Arabi web site: www.nua.ie.
- Internet service unit, 2004a, Internet users in Saudi Arabia, Retrieved 06 July, from Internet service unit web site: www.isu.net.sa.
- Internet service unit, 2004b, Internet Prices in Saudi Arabia, Retrieved 06 July, from Internet service unit web site: www.isu.net.sa.
- Internet society, 2005, Internet definition, retrieved 22 May, from Internet society website: www.isoc.org. chapter2-15
- Internet world state, 2004, Gulf Cooperation Council country Internet Usage and Population Statistics, Retrieved 22 July, from Internet world state web site: www.internetworldstats.com.
- Investor Relations Society (IR), 2006, IR Best Practice Website Guidelines, Retrieved Feb. 11, from Investor Relations Society web site: www.ir-soc.org.uk.
- ISC, 2004, Internet Software Consortium, Retrieved Nov. 23, from ISC web site: www.isc.org.
- Internet world state, 2004, Gulf Cooperation Council country Internet Usage and Population Statistics, Retrieved 16 May from Internet world state web site: available at: www.internetworldstats.com.
- International Telecommunications Union, 2004, world internet usage and population statistic, Retrieved 16 May, from International Telecommunications Union web site: www.itu.int.
- Jackson, C.M., Chow, S., and Leitch, R. A., 1997, Toward an understanding of the behavioural intention to use an information system, *Decision Sciences*, 28(2) 153-172.
- Jenkins Report., 1994, Improving Business Reporting - A Customer Focus, Special Committee on Financial Reporting of the American Institute of Public Certified Accountants. Retrieved 16 May 2004, from AICPA website: www.aicpa.com.
- Jensen M.C., 1993, The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems, *Journal of Finance*, 48, 831-880.
- Jensen, M. and W. Meckling, 1976, Theory of the firm: managerial behavior, agency costs and ownership structure, *Journal of Financial Economics*, 20 (3), 305-360.
- Jensen, M. and Warner, 1988, The distribution of power among corporate managers, shareholders, and directors, *Journal of Financial Economics*, 20, 17-34.
- Jewell, L. N. and M. J. Reitz, 1981, *Group Effectiveness in Organizations*. Scott-Foresman, Glenview, IL.
- Jones, S., 1999, *Doing Internet Research Critical Issues and Method*, London, Sage Publication.

- Jones, M., Xiao, J., and Lymer, A., 2001, Trends in Internet Financial reporting, Institute of Chartered Accountants in England & Wales.
- Jorgenson, D. W., and K. Stiroh, 1995, Computers and Growth'. *Economics of Innovation and New Technology*, 3, 295-316.
- Joshi, P. L., & Al-Bastaki, H., 2000, Determinants of audit fees: evidence from the companies listed in Bahrain. *International Journal of Auditing*, 4, 129-138.
- Judge, W. and C. Zeithaml, 1992, Institutional and strategic choice perspectives on board involvement in the strategic decision process, *Academy of Management Journal*, 35, 766-794.
- Kaplan, S. E. and R. G. Ruland, 1991, Positive Theory, Rationality and Accounting Regulation, *Critical Perspectives on Accounting*, 2(4), 361 - 374.
- Kelton, A. S. & Yang, Y, 2008, The impact of corporate governance on Internet financial reporting, *Journal of Accounting and Public Policy*, 27(1), 62-87.
- Kerlinger, F., 1986, *Foundations of Behavioural research*, Tokyo, GBS Publishing.
- Kervin, J. B., 1992, *Methods for Business Research*, Harper Collins Publishers, USA.
- Kevin Zhu , Kenneth Kraemer , Sean Xu, 2003, Electronic business adoption by European firms: a cross-country assessment of the facilitators and inhibitors, *European Journal of Information Systems*, 12(4), 251-268.
- Khadaroo, I., 2005, Corporate reporting on the internet: some implications for the auditing profession, *Managerial Auditing Journal*, 20(6), 578-591.
- King, G. Pownall and G. Waymire, 1990, Expectations adjustment via timely management forecasts review, synthesis, and suggestions for future research, *Journal of Accounting Literature*, 9, 113-144.
- Kirk, J. and Miller, M. L., 1986, *Reliability and Validity in Qualitative Research*, *Qualitative Research Methods Series*, 1, Sage Publications, USA.
- Koreto, R. J., 1997, When the Bottom line is Online, *Journal of Accountancy*, 183, 63-65.
- Kosnik, R. D., 1990, Effects of board demography and directors' incentives on corporate greenmail decisions, *Academy of Management Journal*, 33, 129-151.
- Kothari, S.P., 2001, Capital Markets Research in Accounting, *Journal of Accounting and Economics*, 31, 105-231.
- Kothari, S., T. Lys, C. Smith and R. Watts., 1988, Auditor liability and information disclosure, *Journal of Accounting Auditing & Finance* 3, 307-340.
- Lam, K., Mok, H.M.K., Cheung, I., Yam, H.C.S., 1994, Family groupings on performance of portfolio selection in the Hong Kong stock market, *Journal of Banking and Finance*, 18 (4), 725-742.
- Lang, M., Lundholm, R., 1993, Cross-sectional determinants of analysts rating of corporate disclosure, *Journal of Accounting Research* 31, 246-271.

- Lee, T. A. and Tweedie, D. P., 1975, Accounting Investigation of Private Shareholder Understanding, *Journal of Accounting and Business Research*, Winter, 3-13.
- Lee, T. A. and Tweedie, D. P., 1976, The Privet Shareholders: His Source of Financial Information and His Understanding of Reporting Practices, *Accounting and Business Research*, Autumn, 304-314.
- Lennox, C., 1999, Are large auditors more accurate than small auditors?, *Accounting and Business Research*, 29 (3), 217-227.
- Levy, H. and E. Lazarovich-Porat., 1995, Signaling theory and risk prevention: An experimental study, *Journal of Economics and Business*, 47 (1), 39-56.
- Leftwich, R., 1983, Accounting information in private markets: Evidence from private lending agreements, *The Accounting Review*, 58 (1), 23-43.
- Leslie Leong, 2003, Theoretical models in IS research and the technology acceptance model (TAM), *Technologies & methodologies for evaluating information technology in business*, Idea Group Publishing, Hershey, PA.
- Levitt, A., 2002. *Take on the Street*, Pantheon Books, New York, NY.
- Libby, R., and H. Tan., 1999, analysts' reactions to warnings of negative earnings surprise, *Journal of Accounting Research*, 37(2), 415-435.
- Lipton, M., and Iorsch, J., 1992, A modest proposal for improved corporate governance, *Business Lawyer*, 48(1), 59-77.
- Litwin, M. S., 1995, *How to Measure Survey Reliability and Validity*, Sage Publication.
- Louwers, T. J., W. R. Pasewark, and E. W. Typpo., 1996, The Internet: Changing the way corporations tell their story. *CPA Journal* 66 (11), 24-28.
- Lundholm, R. J., & Myers, L. A., 2002, Bringing the future forward: The effect of disclosure on the return earnings relation, *Journal of Accounting Research*, 40(3), 809-839.
- Lymer, A., 1997, The use of the Internet in company reporting: A survey and Commentary on the use of the WWW in Corporate Reporting in the UK, Paper presented at the 1997 BAA National Conference, March 21-25 1997, Birmingham.
- Lymer, A., 1999, The Internet and the future of corporate reporting in Europe, *European Accounting Review*, 8 (2), 289-301.
- Lymer, A., Debreceeny, R., Gray, G. L. and Rahman, A., 1999, *Business Reporting on the Internet*, London, International Accounting Standards Committee.
- Lymer, A. and Tallberg, A., 1997, Corporate Reporting and the Internet- a survey and commentary on the use of the WWW in corporate reporting in the UK and Finland, Paper presented at the 20th Annual Congress of the European Accounting Association, Graz, Austria, April 23-25th.
- Madar Research Group, 2005, Internet users in Saudi Arabia, Retrieved 23 May, from Madar Research Group web site: www.Madar.org.

- Mahdi Abu-Fatim, 1998, Official on Introduction of Internet into Kingdom, Al-Riyadh News Paper (6 December).
- Mak, Y.T., Li, Y., 2001, Determinants of corporate ownership and board structure: evidence from Singapore, *Journal of Corporate Finance*, 7 (3), 235–256.
- Mallette, P.. & Fowler. K. L., 1992, Effects of board composition and stock ownership on the adoption of poison pills, *Academy of Management Journal*, 35, 1010-1035.
- Malone, D., C. Fries, and T. Jones., 1993, An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry. *Journal of Accounting, Auditing, and Finance* 8(3), 249-273.
- Mann, P.H., 1985, *Method of Social Investigation*, Basil Blackwell, Oxford.
- Maran, R., 2005, *Internet and World Wide Web Simplified*, 3rd Edition, IDG, New York
- Mardjono, A., 2005, a tale of corporate governance lessons why firms fail, *Managerial Auditing Journal*, 20(3), 76-95.
- Marston, C., 2003, Financial reporting on the Internet by leading Japanese companies, *Corporate Communications: An International Journal*, 8 (1), 23-34.
- Marston, C. and Leow, C. Y., 1998, Financial Reporting on the Internet by leading UK Companies, A Paper Presented at the 21st Annual Congress of the EAA, Antwerp, Belgium.
- Marston, C. and A. Polei, 2004, Corporate reporting on the Internet by German companies, *International Journal of Accounting Information Systems* 5, 285-311.
- Mathieu, R., Robb, S., & Zhang, P., 2006, Leadership structure and the value of debt contracts: Evidence from the Canadian market, *The International Journal of Accounting*, 41, 119-140.
- Maug, E., 1998, Large Shareholders as Monitors: Is there a trade-off between liquidity and control?, *Journal of Finance*, 53, 43-57.
- McCafferty, J., 1995, Investor Relations: How Much to Reveal Online, *CFO* December: 12, 147-176.
- McKinnon, J.L., Dalimunthe, L., 1993, Voluntary disclosure of segment information by Australian diversified companies, *Accounting and Finance* 33 (1), 33–50.
- McMullen, D. A., 1996, Audit committee performance: an investigation of the consequences associated with audit committee, *Auditing: A Journal of Theory and Practice*, 15 (1), 87–103.
- McNally, G., L. Eng, and C. Hasseldine., 1982, Corporate financial reporting in New Zealand: An analysis of user preferences for discretionary information, *Accounting and Business Research* (Winter), 11-20.
- Mcneill, P., 1990, *Research Methods*, Second Edition, Routledge Publisher, London.
- McNichols, M., 1989, Evidence of informational asymmetries from management earnings forecasts and stock returns, *The Accounting Review*, 64(1), 1-27.

- Menon, K. and D. Williams., 1994, The insurance hypothesis and market prices, *The Accounting Review* 69 (2), 327-342.
- Merholz, P., 2006, User-centred information design: a brand peternme product. Retrieved Jan. 17, from Netscape Web site: www.netscape.com
- Miller, D., 1983, *Handbook of Research Design and Social Measurement*, London, Longman Inc.
- Miller, D., 2004, Seven deadly sins of information design, Retrieved Mar. 29, from Netscape Web site: www.netscape.com.
- Millstein, I., 1992, *The Limits of Corporate Power: Existing Constraints on the Exercise of Corporate Discretion*, Macmillan, NewYork.
- Milne, J., 2006, Good Corporate Governance, Good Performance Return Shareholders to the Driver's Seat, One Theory Says, *International Foundation of Employee Benefit Plans*, 47.
- Mintzberg, H., 1983, *Power in and around Organizations*, Prentice-Hall, Englewood Cliffs, NJ.
- Mitchell, J.D., Chia, C.W.L., Loh, A.S., 1995, Voluntary disclosure of segment information: Further Australian evidence, *Accounting and Finance* 35 (2), 1-16.
- Mizruchi, M. S., 1983, Who controls whom? An examination of the relations between management and board of directors in large American corporations, *Academy of Management Review*, 8, 176-185.
- Mok, H.M.K., Lam, K., Cheung, I., 1992, Family control and return co-variation in Hong Kong's common stocks, *Journal of Business Finance & Accounting*, 19 (2), 277-293.
- Molero Lopez, J., Prad Marin, A. and Sevillano Martin F., 1999, The Presentation of financial statements through the Internet: Analysis of the most significant companies in Spain, Paper presented at the EAA 99, Bordeaux, April.
- Molz, R., 1988, Managerial domination of boards of directors and financial performance, *Journal of Business Research*, 16 (3), 235-249.
- Monks, R. and N. Minow, 1995, *Corporate Governance*, Blackwell Publishers,
- Morris, R., 1987, Signalling, agency theory and accounting policy choice. *Accounting and Business Research* 18, 47-56.
- Morse, C. A. and Kalton, G., 1993, *Survey Methods in Social Investigation*, Third Edition, Heinemann Educational Books, London.
- Mun Y. Yi , Yujong Hwang, 2003, Predicting the use of web-based information systems: self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model, *International Journal of Human-Computer Studies*, 59(4), 431-449.
- Nachmias, C. and Nachmias, D, 1996, *Research Method in the Social Sciences*, London, Edward Arnold Ltd.
- Nagar, V., Nanda, D., & Wysocki, P., 2003 Discretionary disclosure and stock-based incentives, *Journal of Accounting and Economics*, 34(2), 283- 309.

- Naser, K. and Nuseibeh, R., 2003, Quality of financial reporting: evidence from the listed Saudi nonfinancial companies, *Accounting and Business Research*, 32, 113-130.
- Naughton, J., 2000, *A Brief History of the Future: Origins of the Internet*, Phoenix mass market, New York.
- Ness, K. E. & Mirza, A. M., 1991, Corporate Social Disclosure: A Note on a Test of Agency Theory, *British Accounting Review*, 23(3), 211-217.
- Netcraft, 2004, Web Server Survey, Retrieved 28 May, from Netcraft web site www.netcraft.com.
- Nielsen, J., 2000, *Designing Web usability*, New Riders, Indiana.
- Nielsen, J., 2006, The Usability Week, 2006 Conference, Retrieved Mar. 31, from Jakob Nielsen's Alert Box Web site: www.nngroup.com.
- Nielsen, J., 2005, Investor relations website design, Retrieved May 17, From web site: www.useit.com.
- Nielsen, J., & Norman, D. A., 2006, Web-site usability: usability on the web site, Retrieved Jan 17, from information week web site: www.informationweek.com.
- Nielsen, J., & Tahir, M., 2002, *Homepage usability: 50 web sites deconstructed*, New Riders Publishing.
- Nichols, V., 1999, *Internet*, AP Professional, Orland.
- Ng, E.J., Koh, H.C., 1994, An agency theory and probity analytic approach to corporate non-mandatory disclosure compliance, *Asia-Pacific Journal of Accounting*, 29-44.
- Ntoko, A., 1999, *The Internet: Past, Present and Future Trends*, Int. Telecommunication Union.
- Nua, 2000, Internet Survey, Retrieved May 19 from Nua web site: www.nua.ie.
- Nua Internet Survey, 2004, How Many are Online Worldwide as of? Retrieved February 02, from Nua web site: www.nua.ie.
- Nua Internet Survey, 2005, How Many are Online Worldwide as of? Retrieved February 13, from Nua web site: www.nua.ie.
- O'Donovan, G., 2002, Environmental Disclosures in the Annual Report: Extending the Applicability and Predictive Power of Legitimacy Theory, *Accounting, Auditing and Accountability*, 15(3), 344 - 371.
- OECD, 1995, *Financial Markets and Corporate Governance*, Financial Market Trends, 62, 31-47.
- OCLC, 2004, Online Computer Library Center, Inc., Retrieved 28 May, from OCLC web site: www.oclc.org.
- Oyelere, P., F. Laswad, and R. Fisher., 2003, Determinants of Internet financial reporting by New Zealand companies, *Journal of International Financial Management and Accounting* 14 (1), 26-63.

- Open Net Initiative, 2004, Internet Filtering in Saudi Arabia in 2004, A Publication of the OpenNet Initiative, Retrieved 14 June from Open Net Initiative web site: www.opennetinitiative.net.
- Oppenheim, A. N., 1992, Questionnaire Design, Interviewing and Attitude Measurement, Printer Publishers, London: 28.
- O'Reilly, C. A. and W. Barnett, 1989, Work group demography, social integration, and turnover, *Administrative Science Quarterly*, 34, 21-37.
- Palaniswamy Rajagopal, 2002, An innovation-diffusion view of implementation of enterprise resource planning (ERP) systems and development of a research model, *Information and Management*, 40(2), 87-114.
- Patten, D.M., 1991, Exposure, legitimacy, and social disclosure, *Journal of Accounting and Public Policy*, 10 (4), 297-308.
- Patten, D.M., 1992, Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory, *Accounting, Organizations and Society* 17 (5), 471-475.
- Patten, D. M., 2002, Media Exposure, Public Policy Pressure, and Environmental Disclosure: An Examination of the Impact of Tri Data Availability, *Accounting Forum*, 26(2), 152 -171.
- Pearce, J. and S. Zahra, 1992, Board composition from a strategic contingency perspective, *Journal of Management Studies*, 29, 411-438.
- Pearce, J. and S. Zahra, 1991, The relative power of CEOs and boards of directors: Associations with corporate performance, *Strategic Management Journal*, 12, 135-153.
- Petravick, S. and Gillett, J., 1998, Distributing earnings reports on the Internet, *Management Accounting (USA)*, 80 (4), 54-56.
- Pfeffer, J., 1973, Size, composition and function of hospital boards of directors: A study of organization- environment linkage, *Administrative Science Quarterly*, 18, 349-364.
- Pfeffer, J., 1972, Size and composition of corporate boards of directors: The organization and its environment, *Administrative Science Quarterly*, 17, 218-228.
- Phillips, L. A., Calantone, R., and Lee, M.T., 1994, International Technology Adoption: Behaviour structure, Demand Certainty and Culture, *Journal of Business & Industrial Marketing*, 9(2), 24-43.
- Pirchegger, B, H. Schader and Wagenhofer, 1999, Financial information on the Internet – A Survey of the Homepages of Austrian companies, *European Accounting Review*, 8(2), 383-395
- Pohjola, M., 2001, Information technology and economic growth: A cross-country analysis, In *Information Technology and Economic Development*, M. POHJOLA, Ed. Oxford University Press, Cambridge, U.K., 42-256.

- Ramat-Gan, 2004, Saudi Telecom Decreased Internet Fees, Info - Prod Research (Middle East), pg.1.
- Ralvic, T. and R. Stretton., 2000, world wild web, Australian CPA; Aug, 70(7), 26.
- Rechner, P.L. and D.R. Dalton, 1991, CEO duality and organizational performance: a longitudinal analysis, Strategic Management Journal, 12(2), 155–160.
- Rogers, E.M., 1995, The Diffusion of Innovation, 5th ed., Free press, New York.
- Rose, G., and Straub, D.W., 1998, Predicting General IT Use: Appalling TAM to Arabic world, Journal of Global information Management, 6(3), 77-93.
- Rowbottom, N., Allam, A. & Lymer, A., 2005, An exploration of the potential for studying the usage of investor relations information through the analysis of web server logs. International Journal of Accounting Information Systems, 2, 31-53.
- Rezaee, Z., Olibe, K.O. and Minmier, G., 2003, Improving corporate governance: the role of audit committee disclosures", Managerial Auditing Journal, 18, 6-7.
- Samba Financial Group, 2005, The Saudi Economy Performance Forecast, Saudi American Bank, Riyadh.
- Saudi Arabian Ministerial Decision, number 163, dated 1997.
- Saudi Arabian Monetary Agency (SAMA), 2005, forty-two Annual Report, Research and Statistics Department, Riyadh: Saudi Arabian Monetary Agency, Riyadh.
- Saudi Arabian Monetary Agency (SAMA), 2005, Saudi Commercial Bank, Saudi Arabian Monetary Agency, Riyadh.
- Saudi Organisation for certified Public Accountants (SOCPA), 2001, SCOPA objectives, Responsibilities and Current Activities, Riyadh.
- Saudi Organisation for certified Public Accountants (SOCPA), 2002, Certified Public Accountants' Regulations, Riyadh.
- Saudi Ministry of Commerce, 2005, goal and objective, Riyadh: Saudi Ministry of Commerce.
- Saudi Ministry of Finance, 2005, Saudi Mutual Fund, Riyadh, Saudi Arabian Monetary Agency.
- Saudi Ministry of Foreign Affairs, 2007, Kingdom-present and future, Riyadh.
- Saudi Share registration Company, 2000, The Saudi Corporation. Riyadh: Saudi Share Registration Company.
- Saudi Stock Market (Tadawul) a, 2005, Saudi Stock Market History. Riyadh: Saudi Stock Market.
- Saudi Stock Market (Tadawul) b, 2005, Saudi Stock Market Performance. Riyadh: Saudi Stock Market.
- Saudi Network Information Centre, 2006, Domain names in Arabic, Retrieved August 05, from Saudi Network Information Centre Web site: www.saudinic.net.sa.

- Schadewitz, H.J., Blevins, D.R., 1998, Major determinants of interim disclosures in an emerging market, *American Business Review*, 16 (1), 41–55.
- Schipper, K., 1981, Discussion of voluntary corporate disclosure: the case of interim reporting, *Journal of Accounting Research*, 19, 85–88.
- Schneider, G. and Bowen, P.L., 1997, Customized Financial Reporting: The Potential of Database Accounting and the Internet, *Proceedings of Pacific Asia Conference on Information Systems*, (April): 91-97.
- Sekaran, Uma, 1992, *Research Methods for Business-A Skill Building Approach*, John Wiley Sons Inc., Canada.
- Simon, S. M. and K. Wong., 2001, A study of the relationship between corporate governance structures and the extent of voluntary disclosure, *Journal of International Accounting, Auditing & Taxation* 10, 139–156.
- Shleifer, A., & Vishny, R. W., 1997, A survey of corporate governance, *The Journal of Finance*, 52, 737– 783.
- Shinawi, A. A., 1970, *The Role of Accounting and Accountants in the developing Economy of Saudi Arabia*, DBA dissertation, University of Southern California.
- Shinawi, A. A., and Crum, W. F., 1971, The Emergence of Professional Accounting in Saudi Arabia, *International Journal of Accounting Education and Research*, 6(2), 103-110.
- CERN, 2006, Short History of Internet Protocols, Retrieved 26 April, from CERN web: www.cern.ch.
- Skinner, D., 1994, Why firms voluntarily disclose bad news, *Journal of Accounting Research*, 32 (1), 38-60.
- Siegel, S. and Castellan, N. J., 1988, *Nonparametric Statistics for the Behaviour Sciences*, McGraw-Hill Book Co.
- Silver, M., 1997, *Business Statistics*, London, The McGraw-Hill Companies.
- Singh, H. and F. Harianto, 1989, Management board relationships, takeover risk, and the adoption of golden parachutes, *Academy of Management Journal*, 32, 7-24.
- Singhvi, S. S. and Deasi, H. B., 1971, An Empirical Analysis of the Quality of Corporate Financial Disclosure, *The Accounting Review*, 46(1), (January), 621-632.
- Straub, D.W., Keil, M., and Brenner, W.H., 1997, Testing the Technology Acceptance Model Across Cultures: A Three Country Study, *Information Management*, 33(1), 62-79.
- Straub, D.W., Limayem, M., and Karahanna, E., 1995, Measuring system usage: Implications For IS Theory Testing, *Management Science*, 41(8), 53-74.
- Streck, J. M., 1998, *Pulling the Plug on Electronic Town Meetings, The Politics of Cyberspace*, New York: Routledge.

Streuly, A. Carolyn, 1994, The Primary Objective of Financial Reporting: How Are We Doing?, The Ohio CPA Journal, December: 15-22.

Spaul, B., 1997, Corporate Dialogue in the Digital Age, London: ICAEW.

Spence, M., 1974, Job market signalling, The Quarterly Journal of Economics 87: 355-374.

Sharma, S. and Rai, A., 2003, n assessment of the relationship between ISD leadership characteristics and IS innovation adoption in organizations, Information and Management, 40(5), 391-401

Sullivan, T., 1996, User testing techniques– a reader-friendly checklist, Retrieved Feb. from all Things Web Web site: www.pantos.org.

Sundgren S.; M. Wells and T. Eisenberg, 1998, Larger board size and decreasing firm value in small firms, Journal of Financial Economics 48(1), 35-54.

Tacq, J., 1998, Multivariate Analysis Techniques in Social science research from problem to analysis, London, Sage Publications.

Tan, H., R. Libby, and J. Hunton, 2002, Analysts' reactions to earnings preannouncement strategies, Journal of Accounting Research 40(1), 223-246.

Taylor, S., 1998, Web Sites A Missed Opportunity? Business Briefing, London: ICAEW.

Taylor, S., and Todd, P., 1995, Assessing IT usage: the Role of Prior Experience, MIS Quarterly, 19(4), 72-95

Taylor, S., and Todd, P., 1995, Understanding Information Technology Usage: A test of competing Models, Information System Research, 6(2)43-53.

Teo, T.S.H., 2003. Attitudes toward online shopping and the Internet. Behaviour & Information Technology 21(4),259-271.

Terry Ma, H. and Zaphiris, P., 2006, The Usability and Content Accessibility of the E-government in the UK, Retrieved Feb. 25, from City University Web site: [site:http://www.soi.city.ac.uk](http://www.soi.city.ac.uk).

The elements of effective web site design – part I, 2006. Retrieved Jan. 17, from Sullivan Solutions: The Secrets of Successful Marketing Web site: www.sullivancreative.com

The Saudi British Bank (SAB), 2003, Trade and Saudi Arabia. Jeddah: Saudi British Bank.

The Saudi British Bank (SAB), 2005, The Sabierc Economic report on Saudi Arabia, Jeddah.

The World Wide Web Consortium (W3C), 2006, Introduction to Web Accessibility, Retrieved February 11, from The World Wide Web Consortium web site: www.w3.org.

Thompson SH Teo , Yujun Pian, 2003, A contingency perspective on internet adoption and competitive advantage, European Journal of Information Systems, 12(2), 78-92.

- Thprndike, R. L and Hagen, E., 1969, *Measurement and Evaluation in Psychology and Education*, 3rd ed., New York: John Wiley & Sons.
- Tilt, C.A., 1994, The influence of external pressure groups on corporate social disclosure: some empirical evidence, *Accounting, Auditing and Accountability Journal*, 7(4), 47-72.
- Titman, S. and B. Trueman, 1986, Information quality and the valuation of new issues, *Journal of Accounting & Economics* 8, 159-172.
- Trites, G., 1999, *The Impact of Technology on Financial and Business Reporting*, CICA, Toronto, ON: Canadian Institute of Chartered Accountants.
- Trites, G. and D. Sheehy, 1997, Electronic Disclosure Making a hit on the Net, *CA Magazine*, March, 10.
- Trueman, B., 1986, Why do managers voluntarily release earnings forecasts? *Journal of Accounting & Economics* 8, 53-61.
- Vafeas, N., 2000, Board structure and the informativeness of earnings, *Journal of Accounting and Public Policy*, 19(2), 139-160.
- Van Duyne, D., Landay, J., & Hong, J., 2006, *The design of sites: patterns, principle, and processes for crafting a customer-centered web experience*, Boston: Addison, Wesley.
- Venkatesh, V. and Davis, F. D., 1996, A Model of the Antecedents of Perceived Ease of Use: Development and Test, *Decision Science*, 27 (3), 17-33.
- Verrecchia, R. E., 200, Essays on disclosure, *Journal of Accounting and Economics*, 23, 1-3.
- Vinton, G., 1998, Corporate governance: an international state-of-the-art, *Managerial Auditing Journal*, 13(7), 86-104.
- Wade, J., C. A. O'Reilly and Chandratat, I., 1990, Golden parachutes: CEOs and the exercise of Social influence, *Administrative Science Quarterly*, 35, 19-35.
- Wallace, R. S. O., 1988. Corporate Financial Reporting in Nigeria, *Accounting and Business Research*, 18(72), (Autumn), 352-362.
- Wallace, R. S. O., Naser, K., Mora, A., 1994, The relation between the comprehensiveness of Corporate Annual Report and Firm Characteristics in Spain, *Accounting and Business Research*, 97, Winter, 41-53.
- Waller, R., 2006, Usability rules for good web sites, Retrieved Feb. 06, from Richard Waller Web site Usability Web site: www.waller.co.uk.
- Wallman, S.M.H., 1995, The future of accounting and disclosure in an evolving world: the need for dramatic change, *Accounting Horizons*, 9(3), September, 81-91.
- Wallman, S. M. H., 1997, The future of accounting and financial reporting, part five: Access accounting, *Accounting Horizons*, 11 (2), 103-116.

Watts, R.L., Zimmerman, J.L., 1986, *Positive Accounting Theory*, Prentice-Hall, Englewood Cliffs, NJ.

Web credible Handbook, 2006, *The usability & accessibility specialists*, Retrieved Feb. 03, from Web credible Handbook web site: www.webcredible.co.uk.

Weisbach, L., 1988, outside directors and CEO turnover, *Journal o Financial Economics*, 20, 431-460.

Westarp, F., Ordelheide, D., Stubenrath, M., Buxmann, P., Konig, W., 1999, *Internet-Based Corporate Reporting Filling the Standardization Gap*, 32nd Hawaii International Conference on System Sciences.

Wheeler, D. L., 2001, *The Internet and Public Culture in Kuwait*, *Gazette*, 63 (2-3), 187-201.

Whittington, G., 1993, Corporate governance and the regulation of financial reporting, *Accounting and Business Research*, 23 (91A), 311-319.

Williams, P., 1996, The relation between prior earnings forecast by management and analyst response to a current management forecast. *The Accounting Review*, 71(1), 103-113.

Wilton, R., L. and Tabb, J. B., 1978, An Investigation into Private Shareholders Usage of Financial Statements in New Zealand, *Accounting Education*, May, 93-101.

WITSA, 2002, *World Information Technology and Services Alliance, Digital Planet: The Global Information Economy*. Vienna: WITSA.

World IT Report, 2003. Number of Internet users grows in Arab Gulf states, Retrieved Apr 10, from World IT Report web site.

Wong, J., 1988, Agency Theory and Accounting Choices: A Theoretical Framework, *Pacific Accounting Review*, 1(1), 22-41.

Worrell, D.L., Nemec, C., Davidson III, W.N., 1997, Research notes and communications—one hat too many: Key executive plurality and shareholder wealth, *Strategic Management Journal*, 18 (6), 499-507.

Yermack, D., 1996, Higher Market Valuation of Companies with a Small Board of Directors, *Journal of Financial Economics* 40, 185-211.

Upton, W. S., 1998, The Internet and financial information - Is there a future here? *Accounting & Business*, (June), 28-30.

Usability gov, 2006, *Planning Usability Activities*, Retrieved Jan. 17, from Usability.gov web site: www.usability.gov.

Xiao, J., Jones, M., Lymer, A., 2002, *Peering into the future: financial reporting on the Internet by 2010*, Centre for Business Performance, London

Xiao, J., Jones, M., Lymer, A., 2002, Immediate Trends in Internet Financial Reporting, *European Accounting Review*, 11(2), 245-275.

Xiao, J. Yang, H. Chow, C., 2004, The determinants and characteristics of voluntary internet-based disclosures by listed Chinese companies. *Journal of Accounting and Public Policy*, 23, 191-225.

Xiao, Z., 2000, Financial reporting on the Internet: A mass customization perspective" *Accounting Research* (1), 43-49.

Zahar, S. A. & Pearce. J. A., 1989, Board of directors and corporate financial performance :A review and integrative model, *Journal of management*, 15, 291-334.

Zook, M, 2000. Internet Metrics: Using host and domain counts to map the Internet, *Telecommunications Policy*, 24, 63-81.

Zughaibi & Kabbani Financial Consulting, 2005, Saudi Stock Market Guide.

Zughaibi & Kabbani Financial Consulting, 2006, Saudi Stock Market Guide.

Appendix NO 1, 2, and 3: Questionnaire English Version



استبيان

اثر الانترنت والتقارير المالية المنشورة في الانترنت

على

مستخدمي المعلومات المالية في المملكة العربية السعودية



The impact of the Internet financial reporting on users of accounting
information in Saudi Arabia

Financial analysts
Questionnaire

Dear

I am currently engaged in research for a Ph.D. in the Business School, at Aston University. I am particularly interested in studying the impact of the Internet financial reporting on users of accounting information in Saudi Arabia. This survey is an important part of the research; therefore, your valuable co-operation and participation in answering the questionnaire will be greatly appreciated. I would be most grateful if you could spare some time to complete the enclosed questionnaire, which deals with the impact of the Internet financial reporting on users of accounting information in Saudi Arabia. All responses will be used for research purposes only and will be treated in confidence. Anonymity of respondents is also guaranteed unless you want a copy of research results, then I will send it to your address. If you have any enquiries, please do not hesitate to contact me on:

Telephone number

Fax number

Mobile number

Email address

Researcher

KHALID AL-MOTRAFI

General Information

1. Respondent category:

- ☐ 1 private investor
- ☐ 2. Financial analysts
- ☐ 3. Institutional investor.

2. Respondent location:

- ☐ 1. Jeddah
- ☐ 2. Riyadh
- ☐ 3. Dammam

3. Level of education?

- ☐ 1. Less than Bachelors degree.
- ☐ 2. Bachelors.
- ☐ 3. Masters.
- ☐ 4. Doctorate.

4. Major degree ?

- ☐ Accounting & finance.
- ☐ Business Administration.
- ☐ Marketing.
- ☐ Computing.
- ☐ Islamic education
- ☐ Engineering
- ☐ High school
- ☐ Linguistic

5. Your age ?

- ☐ 30 years or under.
- ☐ 31-40 years.
- ☐ 41-50 years.
- ☐ 51-60 years.
- ☐ Over 60 years.

6. Internet used ?

- ☐ Less than 6 months.
- ☐ 6 months to less than 1 year.
- ☐ 1 year to less than 2 years.
- ☐ Over 2 years.

Part 2. Internet Background

7. Access the Internet ?

- ☐ At home.
- ☐ At work.
- ☐ Public place (e.g. an Internet Café).

8. Internet skills ?

- ☐ Very Poor.
- ☐ Poor.
- ☐ Fair.
- ☐ Good.
- ☐ Very Good.

9. Internet used ?

- ☐ Less than once a week.
- ☐ Once a week.
- ☐ 2 to 3 times a week.
- ☐ 4 to 5 times a week.
- ☐ Over 5 times a week.

10. Types of information ?

- ☐ Education information.
- ☐ Business information.
- ☐ Computer software.
- ☐ Discussion and chat.
- ☐ Entertainment.
- ☐ News
- ☐ Islamic information

Completely satisfied 5	Satisfied 4	I have no idea 3	Unsatisfied 2	Completely unsatisfied 1
------------------------------	----------------	---------------------	------------------	--------------------------------

- | | |
|--|-----------|
| 14.1 Internet subscription price | 1 2 3 4 5 |
| 14.2 Being easy to subscribe to the Internet | 1 2 3 4 5 |
| 14.3 Cost per hour of Internet access | 1 2 3 4 5 |
| 14.4 Speed of the Internet in general | 1 2 3 4 5 |
| 14.5 Availability of service around the clock from the provider | 1 2 3 4 5 |
| 14.6 Availability of effective technical support from the provider | 1 2 3 4 5 |

- 14.7 Security service against threats

1	2	3	4	5
---	---	---	---	---
- 14.8 Ability to download information

1	2	3	4	5
---	---	---	---	---
- 14.9 Government control over Internet activities

1	2	3	4	5
---	---	---	---	---

Part 3. Sources of Financial Information

11. Given below are several possible **sources of financial information**. Please first indicate how much importance you attach to each source by placing a tick (✓) in one of the columns numbered 1 to 5.

Please then, in the rank order column, rank each source in terms of its importance by placing a number from 1 to 9, where 1 means the most important source and 9 means the least important.

Information source	Very important 5	Important 4	Neutral 3	Of little importance 2	Not important at all 1		Rank order
15.1 Hard copy annual reports (AR)						16.1	ARR
15.2 Hard copy interim reports (IR)						16.2	IRR
15.3 Specialist advice (e.g., from a financial advisor) (SA)						16.3	SAR
15.4 Direct contact with the company (e.g., by telephone calls, meeting with company managers) (DC)						16.4	DCR
15.5 Newspapers and magazines (NP)						16.5	NPR
15.6 Company web sites (WB)						16.6	WBR
15.7 Specialised publications (e.g., a chamber report) (CR)						16.7	CRR
15.8 Friend advice (FA)						16.8	FAR
15.9 Market's rumours and tips (MR)						16.9	MRR

17 Internet Financial Reporting (IFR) sources (IFRS)?

- ☐ SAMA (Saudi Arabian Monetary Agency) web site.
- ☐ Broker's or financial advisor's web site.
- ☐ Investee's website.
- ☐ Others _____

18 Parts of a company's web site interests you most?

- ☐ Company background.
- ☐ Product and service information.
- ☐ Financial information.
- ☐ Management profile.
- ☐ Investors information.
- ☐ Historical financial information

Part 4. Benefits to Users

Please indicate the extent to which each statement is a **benefit for users** by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- 19.1 IFR provides users with another source of information..... 1 2 3 4 5
- 19.2 The Internet provides users with easy access to financial information 1 2 3 4 5
- 19.3 The Internet is a cheaper means of gathering information 1 2 3 4 5
- 19.4 IFR provides users with up-to-date information..... 1 2 3 4 5
- 19.5 IFR makes financial information more attractive 1 2 3 4 5
- 19.6 IFR extends the scope of financial information disclosure 1 2 3 4 5
- 19.7 IFR is easy to download for further analysis..... 1 2 3 4 5
- 19.8 IFR narrows the information gap between sophisticated users and a non- 1 2 3 4 5
- 19.9 IFR enables users to screen a large number of companies..... 1 2 3 4 5
- 19.10 IFR makes it easy to find information about a local company..... 1 2 3 4 5
- 19.11 IFR makes it easy to find information about a foreign company..... 1 2 3 4 5
- 19.12 IFR reduces the demand for meeting with company management..... 1 2 3 4 5

Others _____

Part 5. Users' Concerns

Please indicate the extent to which each statement is a **concern for users** by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- 20.1 IFR is too complex 1 2 3 4 5
- 20.2 IFR increases information overload 1 2 3 4 5
- 20.3 Hyperlinks make it difficult to know the boundaries of IFR 1 2 3 4 5
- 20.4 IFR gives misleading representation..... 1 2 3 4 5
- 20.5 IFR is largely outdated and irrelevant 1 2 3 4 5
- 20.6 IFR is not as complete as hard copy financial reports 1 2 3 4 5

- 20.7 IFR makes it difficult to compare between companies

1	2	3	4	5
---	---	---	---	---
- 20.8 It is too difficult to distinguish between audited and unaudited

1	2	3	4	5
---	---	---	---	---
- 20.9 IFR difficult to distinguish between mandatory and non-mandatory

1	2	3	4	5
---	---	---	---	---
- 20.10 IFR is subject to change and forgery than hard copy reports....

1	2	3	4	5
---	---	---	---	---
- 20.11 IFR is more likely to be corrupted by third parties

1	2	3	4	5
---	---	---	---	---
- Others _____

Part 6. Quality of Current IFR in Saudi Arabia

Please indicate the extent to which you agree or disagree with each statement by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- 21.1 Saudi public companies' IFR is understandable.....

1	2	3	4	5
---	---	---	---	---
- 21.2 Saudi public companies' IFR is relevant.....

1	2	3	4	5
---	---	---	---	---
- 21.3 Saudi public companies' IFR is reliable.....

1	2	3	4	5
---	---	---	---	---
- 21.4 Saudi public companies' IFR is consistent.....

1	2	3	4	5
---	---	---	---	---
- 21.5 Saudi public companies' IFR is comparable (between companies).....

1	2	3	4	5
---	---	---	---	---
- 21.6 Saudi public companies' IFR is easy to access

1	2	3	4	5
---	---	---	---	---
- 21.7 Transmission speed of Saudi public companies' IFR is acceptable.....

1	2	3	4	5
---	---	---	---	---
- 21.8 Saudi public companies respond to Email enquires in acceptable time

1	2	3	4	5
---	---	---	---	---
- 21.9 Download speed of Saudi public companies' IFR is acceptable.....

1	2	3	4	5
---	---	---	---	---
- 21.10 The design of Saudi public companies' IFR satisfies investors.....

1	2	3	4	5
---	---	---	---	---

Part 7. Users' Needs

The following are possible features that could be disclosed on Saudi public companies' web sites. Please indicate the degree of importance of each feature by placing circle around a number from 1 to 5 based on the following scale:

Very important 5	Important 4	Neutral 3	of little important 2	not important at all 1
---------------------	----------------	--------------	--------------------------	---------------------------

General Content:

- 22.a1 Provide IFR in multiple measurement bases..... 1 2 3 4 5
- 22.a2 Provide IFR in multiple GAAP..... 1 2 3 4 5
- 22.a3 Provide IFR in multiple currencies..... 1 2 3 4 5
- 22.a4 A link from first page to IFR..... 1 2 3 4 5
- 22.a5 A table of contents..... 1 2 3 4 5
- 22.a6 Email facilities to provide feedback and/or request further information 1 2 3 4 5

Credibility:

- 22.b1 Hyperlinks to the auditor's home page..... 1 2 3 4 5
- 22.b2 Clear indication when users depart IFR..... 1 2 3 4 5
- 22.b3 Providing the date of last change 1 2 3 4 5
- 22.b4 Update IFR quarterly..... 1 2 3 4 5
- 22.c2 Update IFR monthly 1 2 3 4 5
- 22.c3 Update IFR weekly 1 2 3 4 5
- 22.c4 Real-time IFR..... 1 2 3 4 5

Usability:

- 22.d1 Provide IFR in multiple languages..... 1 2 3 4 5
- 22.d1 Provide IFR in HTML format..... 1 2 3 4 5
- 22.d2 92 Provide IFR in PDF format..... 1 2 3 4 5
- 22.d3 93 Provide IFR in word-processing format 1 2 3 4 5
- 22.d4 94 Provide IFR in spreadsheet format 1 2 3 4 5
- 22.d5 95 Provide IFR in XML format..... 1 2 3 4 5
- 22.d5 95 Layered information to avoid information overload..... 1 2 3 4 5

22.e1 Present IFR in a highly aggregated manner

1	2	3	4	5
---	---	---	---	---

22.e2 Present IFR in different range paged for each group of user.....

1	2	3	4	5
---	---	---	---	---

22.e3 Allow users to access raw data (company database)

1	2	3	4	5
---	---	---	---	---

The questions finished, please return it back to me

by email: KHALID AL-MOTRAFI, Makkah, P.O.BOX

or by fax:

or by email:

Thank you for completing this questionnaire. If you have any comment or concern, please state them in the space below or overleaf.

.....

.....

.....

.....

.....

.....

.....

.....



The impact of the Internet financial reporting on users of accounting
information in Saudi Arabia

Institutional investors
Questionnaire

Dear

I am currently engaged in research for a Ph.D. in the Business School, at Aston University. I am particularly interested in studying the impact of the Internet financial reporting on users of accounting information in Saudi Arabia. This survey is an important part of the research; therefore, your valuable co-operation and participation in answering the questionnaire will be greatly appreciated. I would be most grateful if you could spare some time to complete the enclosed questionnaire, which deals with the impact of the Internet financial reporting on users of accounting information in Saudi Arabia. All responses will be used for research purposes only and will be treated in confidence. Anonymity of respondents is also guaranteed unless you want a copy of research results, then I will send it to your address. If you have any enquiries, please do not hesitate to contact me on:

Telephone number

Fax number

Mobile number

Email address

Researcher

KHALID AL-MOTRAFI

General Information

1. Respondent category:

- ☐ 1 private investor
- ☐ 2. Financial analysts
- ☐ 3. Institutional investor.

2. Respondent location:

- ☐ 1. Jeddah
- ☐ 2. Riyadh
- ☐ 3. Dammam

3. Level of education?

- ☐ 1. Less than Bachelors degree.
- ☐ 2. Bachelors.
- ☐ 3. Masters.
- ☐ 4. Doctorate.

4. Major degree ?

- ☐ Accounting & finance.
- ☐ Business Administration.
- ☐ Marketing.
- ☐ Computing.
- ☐ Islamic education
- ☐ Engineering
- ☐ High school
- ☐ Linguistic

5. Your age ?

- ☐ 30 years or under.
- ☐ 31-40 years.
- ☐ 41-50 years.
- ☐ 51-60 years.
- ☐ Over 60 years.

6. Sectors investment ?

- ☐ Banking.
- ☐ Industrial.
- ☐ Agricultural.
- ☐ Service.
- ☐ Electricity.
- ☐ Cement.

7. Local or Foreign investment ?

- ☐ Only domestic companies.
- ☐ Mainly domestic companies.
- ☐ Equally domestic and foreign companies.
- ☐ Mainly foreign companies.
- ☐ Only foreign companies.

8. Internet used ?

- ☐ Less than 6 months.
- ☐ 6 months to less than 1 year.
- ☐ 1 year to less than 2 years.
- ☐ Over 2 years.

Part 2. Internet Background

9. Access the Internet ?

- ☐ At home.
- ☐ At work.
- ☐ Public place (e.g. an Internet Café).

10. Internet skills ?

- ☐ Very Poor.
- ☐ Poor.
- ☐ Fair.
- ☐ Good.
- ☐ Very Good.

11. Internet used ?

- ☐ Less than once a week.
- ☐ Once a week.
- ☐ 2 to 3 times a week.
- ☐ 4 to 5 times a week.
- ☐ Over 5 times a week.

12. Types of information ?

- ☐ Education information.
- ☐ Business information.
- ☐ Computer software.
- ☐ Discussion and chat.
- ☐ Entertainment.
- ☐ News
- ☐ Islamic information

Completely satisfied 5	Satisfied 4	I have no idea 3	Unsatisfied 2	Completely unsatisfied 1
------------------------------	----------------	---------------------	------------------	--------------------------------

- 14.1 Internet subscription price 1 2 3 4 5
- 14.2 Being easy to subscribe to the Internet 1 2 3 4 5
- 14.3 Cost per hour of Internet access 1 2 3 4 5
- 14.4 Speed of the Internet in general 1 2 3 4 5
- 14.5 Availability of service around the clock from the provider 1 2 3 4 5
- 14.6 Availability of effective technical support from the provider 1 2 3 4 5
- 14.7 Security service against threats 1 2 3 4 5
- 14.8 Ability to download information 1 2 3 4 5
- 14.9 Government control over Internet activities 1 2 3 4 5

Part 3. Sources of Financial Information

13. Given below are several possible **sources of financial information**.

Please first indicate how much importance you attach to each source by placing a tick (✓) in one of the columns numbered 1 to 5.

Please then, in the rank order column, rank each source in terms of its importance by placing a number from 1 to 9, where 1 means the most important source and 9 means the least important.

Information source	Very important 5	Important 4	Neutral 3	Of little importance 2	Not important at all 1	Rank order
15.1 Hard copy annual reports (AR)						16.1 ARR
15.2 Hard copy interim reports (IR)						16.2 IRR
15.3 Specialist advice (e.g., from a financial advisor) (SA)						16.3 SAR
15.4 Direct contact with the company (e.g., by telephone calls, meeting with company managers) (DC)						16.4 DCR
15.5 Newspapers and magazines (NP)						16.5 NPR
15.6 Company web sites (WB)						16.6 WBR
15.7 Specialised publications (e.g., a chamber report) (CR)						16.7 CRR
15.8 Friend advice (FA)						16.8 FAR
15.9 Market's rumours and tips (MR)						16.9 MRR

17 internet Financial Reporting (IFR) sources (IFRS)?

- ☐ SAMA (Saudi Arabian Monetary Agency) web site.
- ☐ Broker's or financial advisor's web site.
- ☐ Investee's website.
- ☐ Others _____

18 Parts of a company's web site interests you most?

- ☐ Company background.
- ☐ Product and service information.
- ☐ Financial information.
- ☐ Management profile.
- ☐ Investors information.
- ☐ Historical financial information

Part 4. Benefits to Users

Please indicate the extent to which each statement is a **benefit** for users by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- | | |
|---|-----------|
| 19.1 IFR provides users with another source of information..... | 1 2 3 4 5 |
| 19.2 The Internet provides users with easy access to financial information | 1 2 3 4 5 |
| 19.3 The Internet is a cheaper means of gathering information | 1 2 3 4 5 |
| 19.4 IFR provides users with up-to-date information..... | 1 2 3 4 5 |
| 19.5 IFR makes financial information more attractive | 1 2 3 4 5 |
| 19.6 IFR extends the scope of financial information disclosure | 1 2 3 4 5 |
| 19.7 IFR is easy to download for further analysis..... | 1 2 3 4 5 |
| 19.8 IFR narrows the information gap between sophisticated users and a non- | 1 2 3 4 5 |
| 19.9 IFR enables users to screen a large number of companies..... | 1 2 3 4 5 |
| 19.10 IFR makes it easy to find information about a local company..... | 1 2 3 4 5 |
| 19.11 IFR makes it easy to find information about a foreign company..... | 1 2 3 4 5 |
| 19.12 IFR reduces the demand for meeting with company management..... | 1 2 3 4 5 |
| Others _____ | |

Part 5. Users' Concerns

Please indicate the extent to which each statement is a **concern for users** by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- 20.1 IFR is too complex 1 2 3 4 5
- 20.2 IFR increases information overload 1 2 3 4 5
- 20.3 Hyperlinks make it difficult to know the boundaries of IFR 1 2 3 4 5
- 20.4 IFR gives misleading representation..... 1 2 3 4 5
- 20.5 IFR is largely outdated and irrelevant 1 2 3 4 5
- 20.6 IFR is not as complete as hard copy financial reports 1 2 3 4 5
- 20.7 IFR makes it difficult to compare between companies 1 2 3 4 5
- 20.8 It is too difficult to distinguish between audited and unaudited 1 2 3 4 5
- 20.9 IFR difficult to distinguish between mandatory and non-mandatory 1 2 3 4 5
- 20.10 IFR is subject to change and forgery than hard copy reports.... 1 2 3 4 5
- 20.11 IFR is more likely to be corrupted by third parties 1 2 3 4 5
- Others _____

Part 6. Quality of Current IFR in Saudi Arabia

Please indicate the extent to which you agree or disagree with each statement by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- 21.1 Saudi public companies' IFR is understandable..... 1 2 3 4 5
- 21.2 Saudi public companies' IFR is relevant..... 1 2 3 4 5
- 21.3 Saudi public companies' IFR is reliable..... 1 2 3 4 5
- 21.4 Saudi public companies' IFR is consistent..... 1 2 3 4 5
- 21.5 Saudi public companies' IFR is comparable (between companies)..... 1 2 3 4 5
- 21.6 Saudi public companies' IFR is easy to access 1 2 3 4 5

- 21.7 Transmission speed of Saudi public companies' IFR is acceptable..... 1 2 3 4 5
- 21.8 Saudi public companies respond to Email enquires in acceptable time 1 2 3 4 5
- 21.9 Download speed of Saudi public companies' IFR is acceptable..... 1 2 3 4 5
- 21.10 The design of Saudi public companies' IFR satisfies investors..... 1 2 3 4 5

Part 7. Users' Needs

The following are possible features that could be disclosed on Saudi public companies' web sites. Please indicate the degree of importance of each feature by placing circle around a number from 1 to 5 based on the following scale:

Very important 5	Important 4	Neutral 3	of little important 2	not important at all 1
---------------------	----------------	--------------	--------------------------	---------------------------

General Content:

- 22.a1 Provide IFR in multiple measurement bases..... 1 2 3 4 5
- 22.a2 Provide IFR in multiple GAAP..... 1 2 3 4 5
- 22.a3 Provide IFR in multiple currencies..... 1 2 3 4 5
- 22.a4 A link from first page to IFR..... 1 2 3 4 5
- 22.a5 A table of contents..... 1 2 3 4 5
- 22.a6 Email facilities to provide feedback and/or request further information 1 2 3 4 5

Credibility:

- 22.b1 Hyperlinks to the auditor's home page..... 1 2 3 4 5
- 22.b2 Clear indication when users depart IFR..... 1 2 3 4 5
- 22.b3 Providing the date of last change 1 2 3 4 5
- 22.b4 Update IFR quarterly..... 1 2 3 4 5
- 22.c2 Update IFR monthly 1 2 3 4 5
- 22.c3 Update IFR weekly 1 2 3 4 5
- 22.c4 Real-time IFR..... 1 2 3 4 5

Usability:

- 22.d1 Provide IFR in multiple languages..... 1 2 3 4 5
- 22.d1 Provide IFR in HTML format..... 1 2 3 4 5
- 22.d2 92 Provide IFR in PDF format..... 1 2 3 4 5

- 22.d3 93 Provide IFR in word-processing format

1	2	3	4	5
---	---	---	---	---
- 22.d4 94 Provide IFR in spreadsheet format

1	2	3	4	5
---	---	---	---	---
- 22.d5 95 Provide IFR in XML format.....

1	2	3	4	5
---	---	---	---	---
- 22.d5 95 Layered information to avoid information overload.....

1	2	3	4	5
---	---	---	---	---
- 22.e1 Present IFR in a highly aggregated manner

1	2	3	4	5
---	---	---	---	---
- 22.e2 Present IFR in different range paged for each group of user.....

1	2	3	4	5
---	---	---	---	---
- 22.e3 Allow users to access raw data (company database)

1	2	3	4	5
---	---	---	---	---

The questions finished, please return it back to me

by email: KHALID AL-MOTRAFI, Makkah, P.O.BOX

or by fax:

or by email:

Thank you for completing this questionnaire. If you have any comment or concern, please state them in the space below or overleaf.

.....

.....

.....

.....

.....

.....

.....

.....



The impact of the Internet financial reporting on users of accounting
information in Saudi Arabia

Private investors
Questionnaire

Dear

I am currently engaged in research for a Ph.D. in the Business School, at Aston University. I am particularly interested in studying the impact of the Internet financial reporting on users of accounting information in Saudi Arabia. This survey is an important part of the research; therefore, your valuable co-operation and participation in answering the questionnaire will be greatly appreciated. I would be most grateful if you could spare some time to complete the enclosed questionnaire, which deals with the impact of the Internet financial reporting on users of accounting information in Saudi Arabia. All responses will be used for research purposes only and will be treated in confidence. Anonymity of respondents is also guaranteed unless you want a copy of research results, then I will send it to your address. If you have any enquiries, please do not hesitate to contact me on:

Telephone number
Fax number
Mobile number
Email address

Researcher
KHALID AL-MOTRAFI

General Information

1. Respondent category:

- ☐ 1 private investor
- ☐ 2. Financial analysts
- ☐ 3. Institutional investor.

2. Respondent location:

- ☐ 1. Jeddah
- ☐ 2. Riyadh
- ☐ 3. Dammam

3. Level of education?

- ☐ 1. Less than Bachelors degree.
- ☐ 2. Bachelors.
- ☐ 3. Masters.
- ☐ 4. Doctorate.

4. Major degree ?

- ☐ Accounting & finance.
- ☐ Business Administration.
- ☐ Marketing.
- ☐ Computing.
- ☐ Islamic education
- ☐ Engineering
- ☐ High school
- ☐ Linguistic

5. Your age ?

- ☐ 30 years or under.
- ☐ 31-40 years.
- ☐ 41-50 years.
- ☐ 51-60 years.
- ☐ Over 60 years.

6. Internet used ?

- ☐ Less than 6 months.
- ☐ 6 months to less than 1 year.
- ☐ 1 year to less than 2 years.
- ☐ Over 2 years.

Part 2.**Internet Background****7. Access the Internet ?**

- ☐ At home.
☐ At work.
☐ Public place (e.g. an Internet Café).

8. Internet skills ?

- ☐ Very Poor.
☐ Poor.
☐ Fair.
☐ Good.
☐ Very Good.

9. Internet used ?

- ☐ Less than once a week.
☐ Once a week.
☐ 2 to 3 times a week.
☐ 4 to 5 times a week.
☐ Over 5 times a week.

10. Types of information ?

- ☐ Education information.
☐ Business information.
☐ Computer software.
☐ Discussion and chat.
☐ Entertainment.
☐ News
☐ Islamic information

Completely satisfied 5	Satisfied 4	I have no idea 3	Unsatisfied 2	Completely unsatisfied 1
------------------------------	----------------	---------------------	------------------	--------------------------------

- 14.1 Internet subscription price

1	2	3	4	5
---	---	---	---	---
- 14.2 Being easy to subscribe to the Internet

1	2	3	4	5
---	---	---	---	---
- 14.3 Cost per hour of Internet access

1	2	3	4	5
---	---	---	---	---
- 14.4 Speed of the Internet in general

1	2	3	4	5
---	---	---	---	---
- 14.5 Availability of service around the clock from the provider

1	2	3	4	5
---	---	---	---	---
- 14.6 Availability of effective technical support from the provider

1	2	3	4	5
---	---	---	---	---

- 14.7 Security service against threats

1	2	3	4	5
---	---	---	---	---
- 14.8 Ability to download information

1	2	3	4	5
---	---	---	---	---
- 14.9 Government control over Internet activities

1	2	3	4	5
---	---	---	---	---

Part 3. Sources of Financial Information

11. Given below are several possible **sources of financial information**.

Please first indicate how much importance you attach to each source by placing a tick (✓) in one of the columns numbered 1 to 5.

Please then, in the rank order column, rank each source in terms of its importance by placing a number from 1 to 9, where 1 means the most important source and 9 means the least important.

Information source	Very important 5	Important 4	Neutral 3	Of little importance 2	Not important at all 1		Rank order
15.1 Hard copy annual reports (AR)						16.1	ARR
15.2 Hard copy interim reports (IR)						16.2	IRR
15.3 Specialist advice (e.g., from a financial advisor) (SA)						16.3	SAR
15.4 Direct contact with the company (e.g., by telephone calls, meeting with company managers) (DC)						16.4	DCR
15.5 Newspapers and magazines (NP)						16.5	NPR
15.6 Company web sites (WB)						16.6	WBR
15.7 Specialised publications (e.g., a chamber report) (CR)						16.7	CRR
15.8 Friend advice (FA)						16.8	FAR
15.9 Market's rumours and tips (MR)						16.9	MRR

17 Internet Financial Reporting (IFR) sources (IFRS)?

- ☐ SAMA (Saudi Arabian Monetary Agency) web site.
- ☐ Broker's or financial advisor's web site.
- ☐ Investee's website.
- ☐ Others _____

18 Parts of a company's web site interests you most?

- ☐ Company background.
- ☐ Product and service information.
- ☐ Financial information.
- ☐ Management profile.
- ☐ Investors information.
- ☐ Historical financial information

Part 4. Benefits to Users

Please indicate the extent to which each statement is a **benefit for users** by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- 19.1 IFR provides users with another source of information..... 1 2 3 4 5
- 19.2 The Internet provides users with easy access to financial information 1 2 3 4 5
- 19.3 The Internet is a cheaper means of gathering information 1 2 3 4 5
- 19.4 IFR provides users with up-to-date information..... 1 2 3 4 5
- 19.5 IFR makes financial information more attractive 1 2 3 4 5
- 19.6 IFR extends the scope of financial information disclosure 1 2 3 4 5
- 19.7 IFR is easy to download for further analysis..... 1 2 3 4 5
- 19.8 IFR narrows the information gap between sophisticated users and a non- 1 2 3 4 5
- 19.9 IFR enables users to screen a large number of companies..... 1 2 3 4 5
- 19.10 IFR makes it easy to find information about a local company..... 1 2 3 4 5
- 19.11 IFR makes it easy to find information about a foreign company..... 1 2 3 4 5
- 19.12 IFR reduces the demand for meeting with company management..... 1 2 3 4 5

Others _____

Part 5. Users' Concerns

Please indicate the extent to which each statement is a **concern for users** by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
---------------------	------------	--------------	---------------	------------------------

- 20.1 IFR is too complex 1 2 3 4 5
- 20.2 IFR increases information overload 1 2 3 4 5
- 20.3 Hyperlinks make it difficult to know the boundaries of IFR 1 2 3 4 5
- 20.4 IFR gives misleading representation..... 1 2 3 4 5

- 20.5 IFR is largely outdated and irrelevant 1 2 3 4 5
- 20.6 IFR is not as complete as hard copy financial reports 1 2 3 4 5
- 20.7 IFR makes it difficult to compare between companies 1 2 3 4 5
- 20.8 It is too difficult to distinguish between audited and unaudited 1 2 3 4 5
- 20.9 IFR difficult to distinguish between mandatory and non-mandatory 1 2 3 4 5
- 20.10 IFR is subject to change and forgery than hard copy reports.... 1 2 3 4 5
- 20.11 IFR is more likely to be corrupted by third parties 1 2 3 4 5
- Others _____

Part 6. Quality of Current IFR in Saudi Arabia

Please indicate the extent to which you agree or disagree with each statement by placing a circle around a number from 1 to 5 based on the following scale:

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

- 21.1 Saudi public companies' IFR is understandable..... 1 2 3 4 5
- 21.2 Saudi public companies' IFR is relevant..... 1 2 3 4 5
- 21.3 Saudi public companies' IFR is reliable..... 1 2 3 4 5
- 21.4 Saudi public companies' IFR is consistent..... 1 2 3 4 5
- 21.5 Saudi public companies' IFR is comparable (between companies)..... 1 2 3 4 5
- 21.6 Saudi public companies' IFR is easy to access 1 2 3 4 5
- 21.7 Transmission speed of Saudi public companies' IFR is acceptable..... 1 2 3 4 5
- 21.8 Saudi public companies respond to Email enquires in acceptable time 1 2 3 4 5
- 21.9 Download speed of Saudi public companies' IFR is acceptable..... 1 2 3 4 5
- 21.10 The design of Saudi public companies' IFR satisfies investors..... 1 2 3 4 5

Part 7. Users' Needs

The following are possible features that could be disclosed on Saudi public companies' web sites. Please indicate the degree of importance of each feature by placing circle around a number from 1 to 5 based on the following scale:

Very important 5	Important 4	Neutral 3	of little important 2	not important at all 1
---------------------	----------------	--------------	--------------------------	---------------------------

General Content:

- 22.a1 Provide IFR in multiple measurement bases..... 1 2 3 4 5
- 22.a2 Provide IFR in multiple GAAP..... 1 2 3 4 5
- 22.a3 Provide IFR in multiple currencies..... 1 2 3 4 5
- 22.a4 A link from first page to IFR..... 1 2 3 4 5
- 22.a5 A table of contents..... 1 2 3 4 5
- 22.a6 Email facilities to provide feedback and/or request further information 1 2 3 4 5

Credibility:

- 22.b1 Hyperlinks to the auditor's home page..... 1 2 3 4 5
- 22.b2 Clear indication when users depart IFR..... 1 2 3 4 5
- 22.b3 Providing the date of last change 1 2 3 4 5
- 22.b4 Update IFR quarterly..... 1 2 3 4 5
- 22.c2 Update IFR monthly 1 2 3 4 5
- 22.c3 Update IFR weekly 1 2 3 4 5
- 22.c4 Real-time IFR..... 1 2 3 4 5

Usability:

- 22.d1 Provide IFR in multiple languages..... 1 2 3 4 5
- 22.d1 Provide IFR in HTML format..... 1 2 3 4 5
- 22.d2 92 Provide IFR in PDF format..... 1 2 3 4 5
- 22.d3 93 Provide IFR in word-processing format 1 2 3 4 5
- 22.d4 94 Provide IFR in spreadsheet format 1 2 3 4 5
- 22.d5 95 Provide IFR in XML format..... 1 2 3 4 5
- 22.d5 95 Layered information to avoid information overload..... 1 2 3 4 5
- 22.e1 Present IFR in a highly aggregated manner 1 2 3 4 5

22.e2 Present IFR in different range paged for each group of user.....

1	2	3	4	5
---	---	---	---	---

22.e3 Allow users to access raw data (company database)

1	2	3	4	5
---	---	---	---	---

The questions finished, please return it back to me

by email: KHALID AL-MOTRAFI, Makkah, P.O.BOX

or by fax:

or by email:

Thank you for completing this questionnaire. If you have any comment or concern, please state them in the space below or overleaf.

.....

.....

.....

.....

.....

.....

.....

.....

Appendix NO 4: Questionnaire Arabic Version



استبيان

اثر الانترنت والتقارير المالية المنشورة في الانترنت

على

مستخدمي المعلومات المالية في المملكة العربية السعودية

البيانات الشخصية

الرجاء وضع علامة (√) في المربع المناسب.

١- آخر مؤهل علمي حصلت عليه ؟

- ☐ أقل من البكالوريوس
☐ بكالوريوس
☐ ماجستير
☐ دكتوراه
☐ أخرى (حدد من فضلك) ...

٢- التخصص في آخر مؤهل علمي حصلت عليه ؟

- ☐ محاسبة ومالية.
☐ إدارة أعمال.
☐ تسويق.
☐ حاسب آلي.
☐ أخرى (حدد من فضلك) ...

٣- ما هو عمرك ؟

- ☐ ٣٠ سنة أو أقل.
☐ ٣١-٤٠ سنة.
☐ ٤١-٥٠ سنة.
☐ ٥١-٦٠ سنة.
☐ أكثر من ٦٠ سنة.

٤- ما هو العدد التقريبي للموظفين في مؤسستكم ؟

٥- أي من القطاعات التالية يحوز على غالب استثمارات مؤسستكم ؟

- ☐ البنوك.
☐ الصناعة.
☐ الزراعة.
☐ الخدمات.
☐ الكهرباء.
☐ الأسمت.

٦- كيف يمكن أن تصف غالب استثمارات مؤسستكم في الشركات المحلية أو الأجنبية؟

- ☐ جميع استثماراتنا في الشركات المحلية.
- ☐ أغلب استثماراتنا في الشركات المحلية.
- ☐ استثماراتنا موزعة بالتساوي بين الشركات المحلية والأجنبية.
- ☐ أغلب استثماراتنا في الشركات الأجنبية.
- ☐ جميع استثماراتنا في الشركات الأجنبية.

٧- منذ متى يستخدم الإنترنت في مؤسستكم ؟

- ☐ لا يستخدم مطلقاً.
- ☐ منذ أقل من ستة أشهر.
- ☐ من ٦ شهور إلى أقل من سنة.
- ☐ من سنة إلى أقل من سنتين.
- ☐ أكثر من سنتين.

الجزء الثاني: تطورات دامة عن استخدام الإنترنت

٨- من أي مكان تستخدم الإنترنت في الغالب ؟

- ☐ من المنزل.
- ☐ من العمل.
- ☐ من المحلات العامة (مثل إنترنت كافيه).
- ☐ أخرى (حدد من فضلك) ...

٩- كيف يمكن أن تصف مهارتك في استخدام الإنترنت ؟

- ☐ ضعيفة جداً.
- ☐ ضعيفة.
- ☐ متوسطة.
- ☐ جيدة.
- ☐ جيدة جداً.

١٠- كم مرة في الأسبوع عادة تستخدم الإنترنت ؟

- ☐ أقل من مرة في الأسبوع.
- ☐ مرة في الأسبوع.
- ☐ ٢-٣ مرات أسبوعياً.
- ☐ ٤ - ٥ مرات أسبوعياً.
- ☐ أكثر من ٥ مرات أسبوعياً.

١١- ما هي نوعية المعلومات التي تبحث عنها في الإنترنت ؟

- ☐ معلومات علمية.
- ☐ معلومات اقتصادية.
- ☐ برامج حاسب آلي.
- ☐ حوارات ومحادثات.
- ☐ معلومات تسلية.
- ☐ أخرى (حدد من فضلك) ...

١٢- فيما يلي عدد من النقاط التي توضح مدى رضاك عن التجهيزات الأساسية للإنترنت في المملكة العربية السعودية، الرجاء إبداء رضاك عن كل عبارة بوضع دائرة على الأرقام من ١ إلى ٥ على أساس المعيار التالي:

راضي جداً	راضي	لا أعلم	غير راضي	غير راضي تماماً
١	٢	٣	٤	٥

١	٢	٣	٤	٥
---	---	---	---	---

١- سعر الاشتراك في خدمة الإنترنت

١	٢	٣	٤	٥
---	---	---	---	---

٢- سهولة الاشتراك في خدمة الإنترنت

١	٢	٣	٤	٥
---	---	---	---	---

٣- تكلفة الساعة للاتصال بالإنترنت

١	٢	٣	٤	٥
---	---	---	---	---

٤- سرعة الإنترنت عموماً

١	٢	٣	٤	٥
---	---	---	---	---

٥- توفر خدمة الإنترنت على مدى ٢٤ ساعة بدون انقطاع من مقدمي الخدمة

١	٢	٣	٤	٥
---	---	---	---	---

٦- توفر الخدمات الفنية من مقدمي الخدمة (على سبيل المثال توفر رقم مجاني للخدمات الفنية سرعة معالجة المشاكل الفنية)

١	٢	٣	٤	٥
---	---	---	---	---

٧- توفر الحماية والأمن لخدمة الإنترنت ضد الاختراقات

١	٢	٣	٤	٥
---	---	---	---	---

٨- سرعة وسهولة تحميل الملفات والبرامج من المواقع المختلفة

١	٢	٣	٤	٥
---	---	---	---	---

٩- رقابة وتحكم مدينة الملك عبد العزيز للعلوم والتقنية على استخدام الإنترنت

الترتيب العام لمصادر المعلومات المالية المنشورة في الإنترنت

١٣- فيما يلي مجموعة من مصادر المعلومات المالية، الرجاء منك تقدير أهمية تلك المصادر وذلك بوضع علامة (√) في أحد الأعمدة المرقمة من ١ إلى ٥.

كما أرجو أن تقوم بترتيب كل مصدر من هذه المصادر بحسب أهميته في عمود الترتيب العام بحيث يعبر رقم (١) عن أكثر أهمية على الإطلاق، ورقم (٩) يعبر عن أقلها أهمية.

الترتيب العام	مصدر المعلومات	مهم جداً ١	مهم ٢	متبادل من حيث الأهمية وعدمها ٣	قليل الأهمية ٤	غير مهم على الإطلاق ٥
	١- التقارير المالية السنوية المطبوعة					
	٢- التقارير المالية الربع سنوية المطبوعة.					
	٣- نصائح المتخصصين (على سبيل المثال مكاتب الاستشارات المالية).					
	٤- الاتصال المباشر مع الشركة (على سبيل المثال: الاجتماع مع إدارة الشركة أو عن طريق الاتصال التليفوني).					
	٥- المعلومات المنشورة في الصحف والمجلات.					
	٦- المعلومات التي تنشرها الشركات في مواقعها على الإنترنت.					
	٧- مطبوعات ومنشورات الهيئات المتخصصة (على سبيل المثال الغرف التجارية).					
	٨- نصائح الأصدقاء.					
	٩- الإشاعات المتداولة في سوق الأسهم.					
	أخرى (من فضلك حدد...).					

١٤- فيما يلي مجموعة من مصادر المعلومات المالية المنشورة في الإنترنت، الرجاء منك تحديد أي من المصادر التالية يعتبر الأهم لمؤسستكم ؟

☐ موقع مؤسسة النقد العربي السعودي.

☐ موقع تداول للأسهم.

☐ مواقع المحللين ومكاتب الأسهم على الإنترنت.

☐ مواقع الشركات المساهمة السعودية.

☐ أخرى (حدد من فضلك)...

١٥- عند زيارتك لموقع من مواقع الشركات على الإنترنت، الرجاء تحديد أي جزء من هذا الموقع مهم لك أكثر؟

- ☐ المعلومات العامة عن الشركة.
- ☐ السلع والخدمات التي تقدمها الشركة.
- ☐ المعلومات المالية.
- ☐ المعلومات المتعلقة بإدارة الشركة.
- ☐ المعلومات المقدمة للمستثمرين.
- ☐ أخرى (حدد من فضلك)...

الجزء الرابع: منافع الإنترنت للمستثمرين

١٦- فيما يلي عدد من المنافع المحتملة للتقارير المالية المنشورة في الإنترنت (IFR) الرجاء إبداء درجة موافقتك من عدمها من كل عبارة بوضع دائرة على الأرقام من ١ إلى ٥ على أساس المعيار التالي:

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق على الإطلاق
١	٢	٣	٤	٥

١	٢	٣	٤	٥
---	---	---	---	---

١- التقارير المالية المنشورة في الإنترنت زودت المستثمرين بمصدر إضافي للحصول على المعلومات المالية

١	٢	٣	٤	٥
---	---	---	---	---

٢- الإنترنت يُعد وسيلة سهلة للحصول على المعلومات المالية

١	٢	٣	٤	٥
---	---	---	---	---

٣- الإنترنت يُعد وسيلة أرخص للحصول على المعلومات المالية

١	٢	٣	٤	٥
---	---	---	---	---

٤- التقارير المالية المنشورة في الإنترنت تُمَد المستثمرين بمعلومات حديثة جداً

١	٢	٣	٤	٥
---	---	---	---	---

٥- التقارير المالية المنشورة في الإنترنت أكثر جاذبية ووضوح للمستثمرين من التقارير المطبوعة (عن طرق استخدام الصور والرسوم البيانية)

١	٢	٣	٤	٥
---	---	---	---	---

٦- التقارير المالية المنشورة في الإنترنت وسعت نطاق الإفصاح عن المعلومات المالية (وذلك بنشر معلومات غير ملزم نشرها طبقاً لمعايير الإفصاح السعودي)

١	٢	٣	٤	٥
---	---	---	---	---

٧- التقارير المالية المنشورة في الإنترنت أكثر سهولة لتحليلها وحفظها في برامج الكمبيوتر

٥	٤	٣	٢	١

٨- التقارير المالية المنشورة في الإنترنت ضيقت الفجوة بين المستثمرين المحترفين، والمستثمرين العاديين (وذلك عن طريق الإنترنت يستطيع المستثمر العادي الحصول على نفس حجم المعلومات التي يحصل عليها المستثمر المحترف)

٥	٤	٣	٢	١

٩- عن طريق التقارير المالية المنشورة في الإنترنت يستطيع المستثمر الاطلاع على تقارير أكبر عدد من الشركات، والتعرف على فرص الاستثمار

٥	٤	٣	٢	١

١٠- سهلت التقارير المالية المنشورة في الإنترنت عملية الحصول على أي معلومة عن الشركات المحلية

٥	٤	٣	٢	١

١١- سهلت التقارير المالية المنشورة في الإنترنت عملية الحصول على أي معلومة عن الشركات الأجنبية

٥	٤	٣	٢	١

١٢- التقارير المالية المنشورة في الإنترنت قللت الحاجة إلى الاجتماع مع إدارة الشركات

٥	٤	٣	٢	١

أخرى (حدد من فضلك)...

الجزء الخامس : مخاطر ومخاطر استخدام التقارير المالية المنشورة في الإنترنت

١٧- فيما يلي مجموعة من المخاطر المحتملة للتقارير المالية المنشورة في الإنترنت، الرجاء إبداء درجة موافقتك من عدمها من كل عبارة بوضع دائرة على الأرقام من ١ إلى ٥ على أساس المعيار التالي .

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق على الإطلاق
١	٢	٣	٤	٥

٥	٤	٣	٢	١

١- التقارير المالية المنشورة في الإنترنت معقدة

٥	٤	٣	٢	١

٢- كمية المعلومات في التقارير المالية المنشورة في الإنترنت أكثر من حاجة المستثمرين

٥	٤	٣	٢	١

٣- الربط بين الصفحات في الإنترنت (hyperlinks) جعل من الصعوبة معرفة حدود التقارير المالية، مما قد يجعل المستثمر يعتمد على بعض المعلومات المالية المنشورة خارج نطاق التقارير

٥	٤	٣	٢	١

٤- طريقة عرض التقارير المالية المنشورة في الإنترنت قد تضلل المستثمرين (وذلك باستخدام الصور والرسومات البيانية)

٥	٤	٣	٢	١	٥ - غالب معلومات التقارير المالية المنشورة في الإنترنت غير حديثة وليس لها علاقة بقرار الاستثمار
٥	٤	٣	٢	١	٦ - التقارير المالية المنشورة في الإنترنت ليس مكتملة مثل التقارير المطبوعة
٥	٤	٣	٢	١	٧ - التقارير المالية المنشورة في الإنترنت جعلت من الصعوبة إمكانية مقارنة المعلومات المالية المنشورة بين الشركات
٥	٤	٣	٢	١	٨ - نشر المعلومات المالية في الإنترنت جعل من الصعوبة التمييز بين المعلومات المالية المدققة من قبل المراجع وغير المدققة
٥	٤	٣	٢	١	٩ - سهولة النشر في الإنترنت جعل من الصعوبة التمييز بين المعلومات المالية الواجب نشرها طبقاً لمعيار العرض والإفصاح والمعلومات المنشورة اختياريًا
٥	٤	٣	٢	١	أخرى (حدد من فضلك)

الجزء السادس : جودة التقارير المالية المنشورة في الإنترنت

جودة التقارير المالية المنشورة في الإنترنت

- ١٨ - الرجاء إبداء درجة موافقتك من عدمها من كل عبارة بوضع دائرة على الأرقام من ١ إلى ٥ على أساس المعيار التالي:

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق على الإطلاق
١	٢	٣	٤	٥

٥	٤	٣	٢	١	١ - تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت مفهومة
٥	٤	٣	٢	١	٢ - تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت مفيدة عند اتخاذ القرارات الاستثمارية
٥	٤	٣	٢	١	٣ - تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت تتمتع بمصداقية
٥	٤	٣	٢	١	٤ - تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت تتمتع بالاستمرارية
٥	٤	٣	٢	١	٥ - إمكانية المقارنة بين تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت ممكنة
٥	٤	٣	٢	١	٦ - تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت تتميز بسهولة الحصول عليها

١	٢	٣	٤	٥
١	٢	٣	٤	٥
١	٢	٣	٤	٥
١	٢	٣	٤	٥

٧- سرعة تصفح تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت مقبولة

٨- سرعة تحميل وحفظ تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت مقبولة

٩- تفاعل وإجابة الشركات السعودية المساهمة للاستفسارات الواردة عن طريق البريد الإلكتروني مقبولة

١٠- تصميم وإعداد تقارير الشركات السعودية المساهمة المالية المنشورة في الإنترنت إجمالاً مرضية للمستثمرين

الجزء السابع : المتطلبات المستخدمة

١٩- فيما يلي مجموعة من المميزات التي من الممكن أن تُنشر في مواقع الشركات المساهمة السعودية على الإنترنت ، الرجاء تقدير أهمية كل ميزة بوضع دائرة حول الأرقام من ١ إلى ٥ ، على أساس المعيار التالي:

مهم جداً	مهم	متعادل من حيث الأهمية وعدمها	قليل الأهمية	غير مهم على الإطلاق
١	٢	٣	٤	٥

مميزات متعلقة بموقع الشركة:

١	٢	٣	٤	٥
١	٢	٣	٤	٥
١	٢	٣	٤	٥
١	٢	٣	٤	٥
١	٢	٣	٤	٥
١	٢	٣	٤	٥
١	٢	٣	٤	٥

١- توفير بريد إلكتروني خاص بالاقترحات أو طلب معلومات إضافية

٢- جعل ربط (link) من موقع الشركة إلى الموقع الخاص بالمرجع القانوني للحسابات

٣- ترتيب المعلومات على شكل طبقات وعناوين حتى يمكن تجنب المعلومات غير المرغوب فيها

٤- وضع علامات مميزة (على سبيل المثال استخدام ألوان أو إطارات) توضح إذا غادر المستخدم حدود التقارير المالية

٥- كتابة تاريخ إعداد التقارير المالية المنشورة على الإنترنت وتاريخ آخر تعديل

٦- جعل هناك ربط (link) من الصفحة الأولى من موقع الشركة إلى التقارير المالية

٧- توفير جدول المحتويات أو خارطة الموقع

فترة إعداد التقارير المالية:

٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١

٨- تحديث التقارير المالية المنشورة في الإنترنت كل ربع سنة

٩- تحديث التقارير المالية المنشورة في الإنترنت شهرياً

١٠- تحديث التقارير المالية المنشورة في الإنترنت أسبوعياً

١١- تحديث التقارير المالية المنشورة في الإنترنت فوراً (بمجرد وقوع العمليات المالية)

لغة أو برامج الحاسب الآلي المفضلة لإعداد التقارير المالية:

٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١

١٢- أعداد التقارير المالية المنشورة في الإنترنت باستخدام (HTML-Format)

١٣- أعداد التقارير المالية المنشورة في الإنترنت باستخدام (PDF Format)

١٤- أعداد التقارير المالية المنشورة في الإنترنت باستخدام (Word Processing Format)

١٥- إعداد التقارير المالية المنشورة في الإنترنت باستخدام (Spreadsheet Format)

١٦- أعداد التقارير المالية المنشورة في الإنترنت باستخدام (XML Format)

طريقة عرض التقارير المالية:

٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١

١٧- عرض التقارير المالية المنشورة في الإنترنت تماماً مثل التقارير المالية المطبوعة (نموذج موحد لجميع المستثمرين)

١٨- عرض التقارير المالية المنشورة في الإنترنت على شكل نماذج مختلفة تناسب حاجة كل طبقة من المستثمرين (على سبيل المثال تقارير مفصلة، موجزة)

١٩- السماح للمستثمرين في الحصول على جميع المعلومات الأولية وأن يكون حجم المعلومات المتوفرة لهم مثل المتوفرة لإدارة الشركة

مميزات أخرى:

٥	٤	٣	٢	١
٥	٤	٣	٢	١
٥	٤	٣	٢	١

٢٠- عرض التقارير المالية المنشورة في الإنترنت باستخدام أكثر من معيار محاسبي من المعايير المتعارف عليها (على سبيل المثال المعيار السعودي، المعيار الدولي)

٢١- عرض التقارير المالية المنشورة في الإنترنت باستخدام أكثر من أساس قياسي محاسبي (على سبيل المثال الأساس النقدي، الاستحقاق)

٥	٤	٣	٢	١

٢٢- عرض التقارير المالية المنشورة في الإنترنت باستخدام أكثر من لغة من اللغات العالمية (اللغة العربية /الإنجليزية)

٥	٤	٣	٢	١

٢٣- عرض التقارير المالية المنشورة في الإنترنت أكثر من عملة من العملات الدولية (الريال/الدولار/اليورو)

وأخيراً أقدم لك جزيل شكري وتقديري لمساعدتك وحسن تعاونك.
 راجياً منك إذا كان لديك تعليق أو ملاحظات حول أسئلة هذا الاستبيان، أو أي معلومات ترى أنها هامة للبحث، ولم ترد في أسئلة الاستبيان ألا تتردد في كتابتها في الصفحة التالية.

Appendix No 5 and 6

Disclosure Index and A List of All Companies Included in the Survey

No	Item	Description	
	Company name		
	Company number		
	Stock market listed	1= if they are listed 0= if not listed	
	Industrial classification	Banking=1 Industrial=2 Cement=3 Service=4 Agricultural=5	
	Auditor	1= for a local audit firm 2= for local Audit firm affiliated with one of the Big 4	
	Company size	Total assets	
	Company performance	Return on total assets	
Ownership structure			
Government ownership			
	Number of major shareholders	1= if government is a major shareholder 0 =if not	
	Percentage of Major shareholders	proportion of government ownership	
Institutional ownership			
	Number of major shareholders	1 =if institutional is a major shareholder 0= if not	
	Percentage of Major shareholders	proportion of institutional ownership	
Individual ownership			
	Number of major shareholders	1 =if an individual (or more) is a major shareholder 0 =if not	
	Percentage of Major shareholders	proportion of individual ownership	
	Free float	percentage of company shares which are freely traded at the stock exchange	
Board structure			
	Role duality	1= if the CEO is also the chairman of the board. 0= if the two positions are occupied by different individuals.	
	Board size	Total number of directors.	
	Web site availability	Yes=1 No=0	
	Any financial information	Yes=1 No=0	
	Disclosure Total score=167	= %	
	CONTENT SCORE=30	= %	
	CREDIBILITY SCORE =56	= %	
	USABILITY SCORE =81	= %	

No	code	Items	Yes=1	No=0	n/applicable	Score
CONTENT ITEMS=30= = %						
1.		Provides Balance sheet				
2.		Provides Income statement				
3.		Provides statement of cash flow				
4.		Management report				
5.		Company background profile				
6.		Products and services profile				
7.		Displays financial information in alternative GAAP				
8.		Displays financial information in alternative currencies				
9.		Offers exchange or link to currency converter site (I think it is usability)				
10.		Provides information about advantages of holding stock				
11.		Includes details regarding major shareholdings				
12.		Provides information on how to buy stock (shares)				
13.		Displays market(s) where company stock/shares traded				
14.		Provides stock/share symbol/code				
15.		Provides interactive stock/share chart				
16.		Provides today's high/low stock/share price or percentage of change in price				
17.		Annual shareholders' meeting agenda and notice				
18.		Voting results of AGM				
19.		Online share register facilities OR Link				
20.		Change of shareholder address OR link				
21.		Online stock transfer OR link				
22.		Includes corporate governance section				
23.		Provides link to Investor Relations section				
24.		Investor Relations link includes word Investor or Financials or similar				
25.		Provides press releases				
26.		Provides internal Search feature				
27.		Includes online user feedback facility / contact us / online investor request information				
28.		Includes site map / directory				
29.		Contains investor glossary with explanation of difficult financial terminology				
30.		Displays Investor Frequently Asked Questions (FAQs)				
CREDIBILITY ITEMS=56= = %						
31.		Provides full annual report (not summary report)				
32.		If full annual report not available, information provided clearly marked "summary information"				
33.		Includes statement explaining control issues related to approval of financial information on Website and Website security				
34.		Displays audited financial statements accompanied by audit report				
35.		Audit report highlights which jurisdiction's GAAP and/or GAAS are/is				

No	code	Items	Yes=1	No=0	n/applicable	Score
		relevant				
36.		Audit firm logo included on audit report				
37.		Displays intermediate warning message when entering/leaving audited annual report [NA for PDF Files, but applicable for HTML files]				
38.		Audit firm logo hyperlinked to auditor's Website				
39.		Audit report includes statement that it does/does not provide opinion on any other information hyperlinked to/from audited financial report				
40.		Audit report includes disclaimer or specific/general warning pertaining to any part of Website outside audited financial statements				
41.		Provides hyperlink(s) from auditor's report to/from element of audited financial statements				
42.		No Hyperlink(s) from/to audited financial statements to external unaudited Websites or sections of company Website				
43.		No hyperlinks to/from audit report to information outside audited financial statements				
44.		Audit report background and /or use of borders consistent with those used in audited financial statements				
45.		Includes scanned handwritten audit report signature (i.e. not typed)				
46.		Provides link(s) to relevant stock exchange(s) websites (TADAWUL website)				
47.		Contains link to TADAWUL database				
48.		Enables user to compare company stock with peers and industry leaders				
49.		Provides dividend history				
50.		Provides hyperlinks to analysts' /(brokers) websites and/or analyst's (brokers') reports on company				
51.		Provides quarterly report (as opposed to semi-annual only)				
52.		Displays proxy statement about internal audit committee members (e.g. education & experience)				
53.		Provides chairman's message				
54.		Displays corporate governance policies and/or charters of main board committees				
55.		Displays information on director education				
56.		Displays director experience				
57.		Displays information on executive education				
58.		Displays executive experience				
59.		Provides policy on remuneration of directors and executives				
60.		Displays names and details of Shariaa committee (if relevant)				
61.		Displays names and details of analysts following company				
62.		Displays company's code of ethics				
63.		Employment profile				
64.		Industry statistics or data profile				
65.		Provides financial snapshot section (overview of company's history of performance)				
66.		Includes social responsibility and/or environmental section				

No	code	Items	Yes=1	No=0	n/applicable	Score
67.		Provides web casts				
68.		Provides link to Press Releases by independent information provider (e.g. RNS/analysts/brokers news)				
69.		Provides E-mail address to Investor Relations department				
70.		Provides Investor Relations postal address				
71.		Provides Investor Relations phone number				
72.		For Email or/online requests, user informed when to expect response				
73.		Provides feature to sign up for Email alerts regarding press releases / newsletter				
74.		If personal information required to register for email alerts, privacy policy explained				
75.		Provides date of last site update as whole				
76.		Indicates how frequently financial information updated				
77.		Includes latest annual report				
78.		Includes latest interim report/results				
79.		Provides calendar of future financial events				
80.		Provides latest (today's) stock/share price				
81.		Indicates time when stock/share price last updated				
82.		Includes facility to graph stock over long time frames (at least 1 year]				
83.		Displays 52 week (one year) stock/share high/low				
84.		Provide monthly newsletter/market review				
85.		Provide weekly newsletter/market review				
86.		Provides historical financial information other than stock prices				
USABILITY ITEMS=81= = %						
87.		Company URL found by conducting a simple name search on Google or other Saudi popular search engines				
88.		Common natural language of company name is used in URL address				
89.		URL short (For compound domain names, avoid hyphens or special character, use all lower case letters, abbreviation used for three or more words).				
90.		Name or logo of company easy to spot on Website				
91.		Page titles between 2 to 6 words				
92.		Language menu or change language option provided on home page (English & Arabic)				
93.		Website English-friendly				
94.		Page not wider than screen (no horizontal scrolling required)				
95.		Uses standard font sizes.				
96.		Text stands still (no moving, blinking or zooming required)				
97.		Text short and articles structured with subheadings connected by hypertext links to facilitate scannability (especially for users with dyslexia). Avoids links to scroll within a page				
98.		Search facility available on every page in Website				
99.		Spell checker embedded in search engine which provides list of clickable possible correct spelling options (important for users with spelling disabilities or foreign language users).				

No	code	Items	Yes=1	No=0	n/applicable	Score
100.		Name or Logo clickable and linked to home page from anywhere on Website				
101.		Hyperlinks change colors to distinguish between visited and unvisited links				
102.		High contrast between foreground and background colours utilized to aid colour-blind users				
103.		Avoids unnecessary scrolling. Important navigation and submit buttons prominently displayed.				
104.		Consistent use of arrows such as having some control scrolling, while others expand and collapse lists				
105.		Navigation area positioned on right/top side of screen (for English web site). (Avoids use of alternative navigational areas)				
106.		Navigation area positioned on left top side of screen (for English web site). (Avoids use of alternative navigational areas)				
107.		Provides table of contents or link page at beginning of annual reports, or alphabetical index, including notes to financial statements				
108.		Each page in annual report links back to main table of contents from each page.				
109.		Information in financial statements hyperlinked to notes to financial statements.				
110.		Website contains search facility inside annual report (both HTML & PDF)				
111.		Utilizes consistent navigational structure.				
112.		Visibility of internal search icon / link				
113.		Visibility of site map / directory				
114.		Visibility of user feedback / contact us				
115.		Short and simple registration forms to register for email alerts				
116.		Visibility (easy to find) latest annual report				
117.		Visibility of financial snapshot				
118.		Easy for users to find audit report (e.g. listed in a table of contents/menu)				
119.		Visibility of directors and executive details				
120.		Visibility of names and details of shariaa committee				
121.		Visibility of corporate governance link (Home page "HP" / Investor Relations/ About the company)				
122.		Visibility of social responsibility link (HP / Investor Relations/ About the company)				
123.		Visibility of press releases (HP / Investor relations/ About the company)				
124.		Visibility of Investor Relations link				
125.		Visibility of Investor Relations contact details in highly visible area of Investor Relations section				
126.		Visibility of Investor FAQs				
127.		Visibility (of investor glossary)				
128.		Visibility of information on how to buy company stock (shares)				
129.		Visibility of dividend history				
130.		Visibility of stock (share) symbol				
131.		Visibility of interactive stock chart				

No	code	Items	Yes=1	No=0	n/applicable	Score
132.		Visibility of stock exchange(s) link				
133.		Visibility of Analysts' details				
134.		Visibility of site update				
135.		Video of annual general meetings or press conferences provided				
136.		Videos available in versions with subtitles for users who are not native speaker or who have computers with no sound cards				
137.		Displays audio clips / recorded speeches from shareholder meetings or press conferences.				
138.		Transcripts of any spoken audio clips provided				
139.		Transcript of video clips and proceedings provided				
140.		Provides slide presentations [PDF / PPT]				
141.		Screen displays presentation's length and / or user's current progress toward completing web cast.				
142.		Website provides detailed information for each web cast event.				
143.		In comparing company with peers and/or industry leaders, different coloured graph lines distinguishable (even by most colour-blind users)				
144.		Help link explains how to use graphing feature				
145.		Displays financial information in alternative languages (Arabic & English)				
146.		annual report in PDF format available				
147.		annual report HTML format available				
148.		annual report downloadable spreadsheet format available				
149.		annual report WORD file available				
150.		PDF of latest quarterly / interim report provided				
151.		HTML of latest quarterly / interim report provided				
152.		Downloadable spreadsheet of latest quarterly / interim report provided				
153.		WORD file of latest quarterly / interim report provided				
154.		Cash flow statement present in PDF format				
155.		Cash flow statement present in HTML format				
156.		Cash flow statement present in downloadable spreadsheet format				
157.		Cash flow statement present in WORD file				
158.		Shareholder information detail provided in PDF format				
159.		Shareholder information detail provided in HTML format				
160.		Shareholder information detail provided in WORD file				
161.		Audit report provided in PDF format				
162.		Audit report provided provided in HTML format				
163.		Audit report provided in WORD file				
164.		If audit report in PDF format, scanned image high quality				
165.		For large PDF files, Website offers option to download document in smaller sections(more than 1 MB)				
166.		For each PDF document provides gateway page that gives summary description of content and file size				
167.		Provides separate print version for any long page				

No	sector	Company name	Web address	FI	Notes
1.	Banking	AlJaziraBank	www.baj.com.sa	√	
2.		Al Rajhi Bank	www.alrajhibank.com.sa	√	
3.		Arab National Bank	www.anb.com.sa	√	
4.		Banque Saudi Fransi	www.alfransi.com.sa	√	
5.		Riyad Bank	www.riyadbank.com	√	
6.		Samba Financial Group	www.samba.com.sa	√	
7.		Saudi British Bank	www.sabb.com.sa	√	
8.		Saudi Hollandi Bank	www.shb.com.sa	√	
9.		The National Commercial Bank	www.alahli.com.sa	√	
10.		The Saudi Investment Bank	www.saib.com.sa	√	
11.	Cement	Arabian Cement Co.	www.arabiacement.com	×	
12.		Eastern province Cement Co.	www.eastern-cement.com.sa	√	
13.		Qassim Cement Co.	www.qcc.com.sa	√	
14.		Saudi Cement Co.	www.saudicement.com.sa	√	
15.		Saudi White Cement Co.	www.sawcem.com	√	
16.		Southern province Cement Co.	NO	×	
17.		Tabuk Cement Co.	www.tcc-sa.com	√	
18.		Yamama Cement Co.	www.yamamacement.com	√	
19.		Yanbu Cement Co.	www.yanbucement.com	×	
20.	Service	Al-Babtain Power & Telecommunication Co	www.al-babtain.com.sa	√	
21.		Al Baha Co. for Investment and Development 2	NO	×	2+3
22.		Al Bassami International Group	www.albassamigroup.com	×	
23.		Abbar and Zainy coldstores Co.	www.abbar-and-zainy-coldstores.com/	×	2
24.		Aldrees Petroleum & Transport Services Co.	www.aldrees.com	√	
25.		Al-Madina Printing & publication Co.	NO	×	9
26.		Al Mawashi Al Mukairish United Co.	www.mmuc.net	×	
27.		Al Qassim Co. for Medical Services	NO	×	
28.		Al Taif Co. for Investment and Development	No	×	2
29.		Arab Resort Areas Co.	www.arac.com.sa	×	
30.		Arabian Fisheries Co	No	×	2
31.		Arriyadh Development Co	www.ardco.com.sa	×	
32.		Aseer Trading, Tourism & Manufacturing Co.	NO	×	9
33.		Fawaz Alhokair Group	www.alhokair.com.sa	×	
34.		Fitaihi Co.	www.fitaihi.com.sa	×	
35.		GCC Interconnection Authority Co.	www.gccia.com.sa	×	
36.		INMAIA real estate and tourism investment and development Co.	www.inmaia.com	√	

No	sector	Company name	Web address	FI	Notes
37.		Jarir Marketing Co	www.jarirbookstore.com	×	
38.		Jeddah holding Co.	NO	×	2+9
39.		Makkah Construction & Development Co	www.mcdc.com.sa	√	9
40.		Makkah medical center Co.	NO	×	2+3
41.		Middle east medical care Co.	No	×	2
42.		Mobily Co.	www.mobily.com.sa	√	6
43.		National Agriculture Marketing Co.	www.thimar.com.sa	×	
44.		National medical care Co.	www.nmc.med.sa	×	
45.		Saudi Automotive Services Co	www.sasco-sa.com	×	
46.		Saudi Early Warning Co.	www.enthar.com/early-home.htm	×	
47.		Saudi hotels and Resorts Co.	www.saudi-hotels.com.sa	×	
48.		Saudi Industrial Export Co. (SIEC),	www.siec.com.sa	×	
49.		Saudi Land Transport Co.	www.mubarrad.com.sa	×	
50.		Saudi Public Transport Co	www.saptco.com.sa	√	
51.		Saudi Real Estate Co.	www.akaria.com.sa	√	
52.		Saudi Research & Marketing Group (SRMG)	www.srmg.com	×	
53.		Saudi Telecom Co.	www.stc.com.sa	√	6
54.		Saudi Travellers Cheques Co. (STCC).	www.saudicheque.com	×	
55.		Taibah Investment & Real Estate Co.	www.taiba.com.sa	√	
56.		The national Company for Cooperative Insurance (NCCI)	www.ncci.com.sa	√	7
57.		The National Company for Energy	No	×	2
58.		The National Shipping Company of Saudi Arabia (NSCSA)	www.nscsa.com	√	
59.		The Tourism Enterprises Company (SHAMS)	www.palmbeach-resort.com/shamsco.htm	×	
60.		Tihama Advertising & Public Relations Co.	www.tihama.com	×	9
61.		Zamil Group	www.zamil.com	×	
62.	Industrial	Al-Ahsa Development Co.	NO	×	9
63.		Almarai Co.	http://www.almarai.com/	√	
64.		Al Aujan Industries Co	www.aujan.com.sa	×	
65.		Alujain Corporation	www.alujaincorporation.com	√	
66.		Arabian Industrial Development Co. (NAMA)	www.nama.com.sa	√	
67.		Arabian Industrial Fibers Co. (Ibn Rushd),	www.ibnrushd.com.sa	×	
68.		Arabian Petroleum Supply Co. (APSCO).	www.apsco.com.sa	×	
69.		Arabian Pipes Co.	www.arabian-pipes.com	√	

No	sector	Company name	Web address	FI	Notes
70.		Arabian Waterproofing Industries Co. Ltd.	www.awazel.com	×	
71.		Filling & Packing Materials Manufacturing Co.	www.fipco.com.sa	×	
72.		Food Products Co.	www.wafrah.com	×	
73.		Gulf Fibertech industrial Co 2	NO	×	
74.		Jeddah Refinery Co. 2	No	×	
75.		Jubail Chemical Industries Co. (Jana)	www.jana-ksa.net	×	
76.		Madina Industrial Investment Co.	www.madina.com.sa	√	
77.		National Co. for industrial Petrochemical	No	×	2
78.		National Gas & Industrialization Co.	www.gasco.com.sa	√	
79.		National Gypsum Co.	www.gypSCO.com.sa	×	
80.		National Industrialization Co	www.nic.com.sa	√	4
81.		National Metal Manufacturing & Casting Co. "Maadaniyah"	www.natmetalco.com	×	
82.		Sahara Petrochemicals Co.	www.saharapcc.com	√	
83.		Saudi Advanced Industries Co.	www.saic.com.sa	×	
84.		Saudi Arabia Fertilizers Co.	NO	×	3
85.		Saudi Arabia Refineries Co	www.almasafi.com.sa	×	
86.		Saudi Arabian Amiantit Group	www.amiantit.com	√	
87.		Saudi Arabian Lubricating Oil Co. (Petrolube)	www.petroilinoils.com/petroara/profile.htm	×	
88.		Saudi Arabian Mining Co. (Ma'aden)	www.maaden.com.sa	×	
89.		Saudi Basic Industries Corp	www.sabic.com	√	
90.		Saudi Cable Co.	www.saudicable.com	√	
91.		Saudi Ceramic Co.	www.saudiceramics.com	√	
92.		Saudi Chemical Co.	www.saudichemical.com	×	
93.		Saudi Electricity Co.	www.se.com.sa	√	5
94.		Saudi Industrial Development Co. (SIDC)	www.sidc.com.sa	√	
95.		Saudi Industrial Investment Group	www.siiG.com.sa	√	
96.		Saudi Industrial Services Co. (SISCO)	www.sisco.com.sa	√	
97.		Saudi International Petrochemical Co. (Sipchem)	www.sipchem.com	√	
98.		Saudi Pharmaceutical Industries & Medical Appliances Corporation (SPIMACO)	www.spimaco.com.sa	√	
99.		Saudia Dairy & Foodstuff .Co	www.sadafco.com	√	
100.		Savola Group	www.savola.com	√	
101.		The National Co. for Glass Industries	www.zoujaj.com	×	
102.		The Saudi Paper Manufacturing	http://www.saudipaper.com/	×	

No	sector	Company name	Web address	FI	Notes
103.	Agricultural	Zamil Industrial Investment Co	www.ziic.com	√	
104.		Agricultural marketing Co.	No	×	
105.		Al-Jouf Agriculture Development Co.	www.aljouf.com.sa	×	
106.		Ash-Sharqiyah - Agricultural Development Co.	www.asharqiyah.com.sa	×	
107.		Bishah Agriculture Development Co	No	×	
108.		Hail Agriculture Development Co	www.hadco.com.sa	√	
109.		Jazan Development Co.	www.gazadco.com.sa	×	
110.		National Agricultural Development Co.	www.nadec.com.sa	×	
111.		Qassim Agriculture Co.	www.gaco.com.sa	√	
112.		Saudi fisheries Co.	www.saudi-fisheries.com	×	
113.		Tabuk Agriculture Development Co.	www.tadco-agri.com	√	

1= established after 30-12-2004(18-11-1425), 2=company name translated by researcher, 3= not available now, 4= part of other company, 5= classified in Saudi stock market as electrical, 6= classified in Saudi stock market as telecommunication, 7= classified in Saudi stock market as insurance, 8=under liquidation, and 9=under construction

Appendix No (7): General content items

Table 9-6b: General content Information (user need) checklist items result compared with previous studies

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	- This study 2008 Saudi
General content					
1 Provides Balance sheet	98	30	97	NA	43
2 Provides Income statement	98	30	NA	NA	44
3 Provides statement of cash flow	98	29	96	99	41
4 Management report	100	47	95	NA	39
5 Company background profile	NA	NA	NA	NA	80
6 Products and services profile	NA	NA	NA	NA	81
7 Displays financial information in alternative GAAP	NA	NA	NA	NA	16
8 Displays financial information in alternative currencies	NA	NA	NA	10	1
9 Offers exchange or link to currency converter site	NA	NA	NA	8	1
10 Provides information about advantages of holding stock	NA	NA	NA	NA	31
11 Includes details regarding major shareholdings	70	49	NA	93	10
12 Provides information on how to buy stock (shares)	NA	NA	NA	61	28
13 Displays market(s) where company stock/shares traded	NA	NA	NA	75	40
14 Provides stock/share symbol/code	NA	NA	NA	87	27
15 Provides interactive stock/share chart	NA	NA	NA	85	15

Table 9.6b, Continued

Authors Year of Study Country of Study	General content	Percentage of companies include item from the total sample				
		Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
16	Provides today's high/low stock/share price or percentage of change in price	93	13	67	91	23
17	Annual shareholders' meeting agenda and notice	84	NA	NA	NA	5
18	Voting results of AGM	57	NA	NA	NA	32
19	Online share register facilities OR Link	11	NA	NA	NA	21
20	Change of shareholder address OR link	NA	NA	NA	NA	21
21	Online stock transfer OR link	NA	NA	NA	NA	18
22	Includes corporate governance section	NA	NA	NA	76	36
23	Provides link to Investor Relations section	NA	NA	NA	97	58
24	Investor Relations link includes word Investor or Financials or similar	NA	NA	84	95	47
25	Provides press releases	100	41	98	99	61
26	Provides internal Search feature	70	16	NA	67	31
27	Includes online user feedback facility / contact us / online investor request information	20	17	NA	95	82
28	Includes site map / directory	77	21	63	71	81
29	Contains investor glossary with explanation of difficult financial terminology	NA	NA	NA	21	11
30	Displays Investor Frequently Asked Questions (FAQs)	45	1	NA	48	21

Table 9.6c: General Content Items (user need) Based on Applicable Companies

General Content items	1	2 %	3	4 %
1. Provides Balance sheet	49	43	95	52
2. Provides Income statement	50	44	95	53
3. Provides statement of cash flow	46	41	95	48
4. Management report	44	39	95	46
5. Company background profile	90	80	95	95
6. Products and services profile	91	81	95	96
7. Displays financial information in alternative GAAP	18	16	95	19
8. Displays financial information in alternative currencies	1	1	95	1
9. Offers exchange or link to currency converter site	1	1	95	1
10. Provides information about advantages of holding stock	35	31	95	37
11. Includes details regarding major shareholdings	11	10	95	12
12. Provides information on how to buy stock (shares)	32	28	77	42
13. Displays market(s) where company stock/shares traded	45	40	77	58
14. Provides stock/share symbol/code	31	27	77	40
15. Provides interactive stock/share chart	17	15	77	22
16. Provides today's high/low stock/share price or percentage of change in price	26	23	77	34
17. Annual shareholders' meeting agenda and notice	6	5	77	8
18. Voting results of AGM	36	32	77	47
19. Online share register facilities OR Link	24	21	77	31

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.6c, Continued

General Content items	1	2 %	3	4 %
20. Change of shareholder address OR link	24	21	77	31
21. Online stock transfer OR link	20	18	77	26
22. Includes corporate governance section	41	36	95	43
23. Provides link to Investor Relations section	66	58	95	69
24. Investor Relations link includes word Investor or Financials or similar	53	47	66	80
25. Provides press releases	69	61	95	73
26. Provides internal Search feature	35	31	95	37
27. Includes online user feedback facility / contact us / online investor request information	93	82	95	98
28. Includes site map / directory	91	81	95	96
29. Contains investor glossary with explanation of difficult financial terminology	12	11	95	13
30. Displays Investor Frequently Asked Questions (FAQs)	24	21	95	25

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Appendix No (8): Credibility Items

Table 9.7.b.1: Credibility Items (Audited and audit related information) result compared with previous studies

Authors Year of Study Country of Study Items	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
31. Provides full annual report (not summary report)	NA	22	NA	98	35
32. If full annual report not available, information provided clearly marked "summary information"	NA	NA	NA	9	0
33. Includes statement explaining control issues related to approval of financial information on Website and Website security	NA	NA	NA	5	29
34. Provides quarterly report (as opposed to semi-annual only)	76	17	42	27	13
35. Displays audited financial statements accompanied by audit report	94	28	96	100	35
36. Audit report highlights which jurisdiction's GAAP and/or GAAS are/is relevant	NA	47	NA	100	35
37. Audit firm logo included on audit report	NA	NA	NA	5	29
38. Displays intermediate warning message when entering/leaving audited annual report [NA for PDF Files, but applicable for HTML files]	5	NA	30	0	1
39. Audit firm logo hyperlinked to auditor's Website	NA	NA	NA	0	0
40. Audit report includes statement that it does/does not provide opinion on any other information hyperlinked to/from audited financial report	NA	NA	NA	0	1
41. Audit report includes disclaimer or specific/general warning pertaining to any part of Website outside audited financial statements	NA	NA	NA	7	1
42. Provides hyperlink(s) from auditor's report to/from element of audited financial statements	NA	NA	NA	2	1
43. No Hyperlink(s) from/to audited financial statements to external unaudited Websites or sections of company Website	NA	NA	NA	98	35
44. No hyperlinks to/from audit report to information outside audited financial statements	NA	NA	NA	98	35
45. Audit report background and /or use of borders consistent with those used in audited financial statements	NA	NA	NA	98	34
46. Includes scanned handwritten audit report signature (i.e. not typed)	NA	28	52	59	29

Table 9.7.b.2: Credibility Items (Corporate governance information) result compared with previous studies

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
Items					
47. Provides link(s) to relevant stock exchange(s) websites (TADAWUL website)	NA	1	NA	28	34
48. Contains link to official database (e.g. TADAWUL and EDGAR)	NA	NA	NA	20	29
49. Enables user to compare company stock with peers and industry leaders	NA	NA	NA	58	7
50. Provides dividend history	NA	NA	NA	55	17
51. Provides hyperlinks to analysts'/(brokers) websites and/or analysts (brokers) reports on company	NA	NA	NA	24	1
52. Displays proxy statement about internal audit committee members (e.g. education & experience)	NA	NA	NA	32	10
53. Provides chairman's message	NA	7	94	21	39
54. Displays corporate governance policies and/or charters of main board committees	NA	NA	94	54	51
55. Displays information on director education	55	NA	NA	36	8
56. Displays director experience	55	NA	NA	85	7
57. Displays information on executive education	NA	NA	NA	38	4
58. Displays executive experience	NA	NA	NA	85	3
59. Provides policy on remuneration of directors and executives	NA	NA	NA	48	3
60. Displays names and details of Shariaa committee (if relevant)	NA	NA	NA	NA	5
61. Displays names and details of analysts following company	NA	NA	NA	45	2
62. Displays company's code of ethics	9	NA	NA	51	27
63. Employment profile	11	NA	10	NA	56
64. Industry statistics or data profile	NA	NA	4	NA	55

Table 9.7.b.2, Continued

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
Items					
65. Provides financial snapshot section (overview of company's history of performance)	NA	NA	96	60	65
66. Includes social responsibility and/or environmental section	52	NA	49	67	35
67. Provides web casts	NA	NA	64	48	1
68. Provides link to Press Releases by independent information provider (e.g. RNS/analysts/brokers news)	NA	NA	9	69	31
69. Provides E-mail address to Investor Relations department	100	10	45	82	69
70. Provides Investor Relations postal address	80	10	NA	86	61
71. Provides Investor Relations phone number	98	11	NA	88	61
72. For Email or/online requests, user informed when to expect response	NA	NA	NA	3	0
73. Provides feature to sign up for Email alerts regarding press releases / newsletter	80	2	NA	78	15
74. If personal information required to register for email alerts, privacy policy explained	NA	NA	NA	75	0

Table 9.7.b.3: Credibility Items (Timely information) result compared with previous studies

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
Items					
75. Provides date of last site update as whole	9	1	NA	7	20
76. Indicates how frequently financial information updated	NA	NA	NA	5	0
77. Includes latest annual report	NA	NA	NA	* 92	34
78. Includes latest interim report/results	NA	NA	NA	95	13
79. Provides calendar of future financial events	98	0	NA	78	4
80. Provides latest (today's) stock/share price	NA	NA	75	92	* 22
81. Indicates time when stock/share price last updated	NA	NA	NA	81	4
82. Includes facility to graph stock over long time frames (at least 1 year]	NA	NA	NA	84	13
83. Displays 52 week (one year) stock/share high/low	70	4	NA	68	13
84. Provide monthly newsletter/market review	2	2	NA	NA	15
85. Provide weekly newsletter/market review	2	2	NA	NA	6
86. Provides historical financial information other than stock prices	93	49	NA	NA	35

Table 9.7.c.1: Credibility Items (Audited and audit related information)

Credibility items		1	2	3	4
			%		%
31.	Provides full annual report (not summary report)	40	35	95	42
32.	If full annual report not available, information provided clearly marked "summary information"	0	0	55	0
33.	Includes statement explaining control issues related to approval of financial information on Website and Website security	33	29	95	35
34.	Provides quarterly report (as opposed to semi-annual only)	15	13	95	16
35.	Displays audited financial statements accompanied by audit report	39	35	95	41
36.	Audit report highlights which jurisdiction's GAAP and/or GAAS are/is relevant	39	35	39	41
37.	Audit firm logo included on audit report	33	29	39	85
38.	Displays intermediate warning message when entering/leaving audited annual report [NA for PDF Files, but applicable for HTML files]	1	1	17	6
39.	Audit firm logo hyperlinked to auditor's Website	0	0	39	0
40.	Audit report includes statement that it does/does not provide opinion on any other information hyperlinked to/from audited financial report	1	1	39	3
41.	Audit report includes disclaimer or specific/general warning pertaining to any part of Website outside audited financial statements	1	1	39	3
42.	Provides hyperlink(s) from auditor's report to/from element of audited financial statements	1	1	39	3
43.	No Hyperlink(s) from/to audited financial statements to external unaudited Websites or sections of company Website	39	35	39	100
44.	No hyperlinks to/from audit report to information outside audited financial statements	39	35	39	100
45.	Audit report background and /or use of borders consistent with those used in audited financial statements	38	34	39	97
46.	Includes scanned handwritten audit report signature (i.e. not typed)	33	29	39	85

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.7.c.2: Credibility Items (Corporate governance information)

Credibility items		1	2	3	4
			%		%
47.	Provides link(s) to relevant stock exchange(s) websites (TADAWUL website)	38	34	77	49
48.	Contains link to TADAWUL database	33	29	77	43
49.	Enables user to compare company stock with peers and industry leaders	8	7	76	11
50.	Provides dividend history	19	17	94	20
51.	Provides hyperlinks to analysts' /(brokers) websites and/or analyst's (brokers') reports on company	1	1	77	1
52.	Displays proxy statement about internal audit committee members (e.g. education & experience)	11	10	95	12
53.	Provides chairman's message	44	39	95	46
54.	Displays corporate governance policies and/or charters of main board committees	58	51	95	61
55.	Displays information on director education	9	8	95	9
56.	Displays director experience	8	7	95	8
57.	Displays information on executive education	4	4	95	4
58.	Displays executive experience	3	3	95	3
59.	Provides policy on remuneration of directors and executives	3	3	95	3
60.	Displays names and details of Shariaa committee (if relevant)	6	5	12	50
61.	Displays names and details of analysts following company	2	2	77	3
62.	Displays company's code of ethics	30	27	95	32
63.	Employment profile	63	56	95	66
64.	Industry statistics or data profile	62	55	95	65

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.7.c.2, Continued

Credibility items		1	2 %	3	4 %
65.	Provides financial snapshot section (overview of company's history of performance)	73	65	95	77
66.	Includes social responsibility and/or environmental section	39	35	95	41
67.	Provides web casts	1	1	95	1
68.	Provides link to Press Releases by independent information provider (e.g. RNS/analysts/brokers news)	35	31	95	37
69.	Provides E-mail address to Investor Relations department	78	69	95	82
70.	Provides Investor Relations postal address	69	61	95	73
71.	Provides Investor Relations phone number	69	61	95	73
72.	For Email or/online requests, user informed when to expect response	0	0	95	0
73.	Provides feature to sign up for Email alerts regarding press releases / newsletter	17	15	95	18
74.	If personal information required to register for email alerts, privacy policy explained	0	0	17	0

Table 9.7.c.3: Credibility Items (Timely information)

Credibility items		1	2 %	3	4 %
75.	Provides date of last site update as whole	23	20	95	24
76.	Indicates how frequently financial information updated	0	0	95	0
77.	Includes latest annual report	38	34	95	40
78.	Includes latest interim report/results	15	13	95	16
79.	Provides calendar of future financial events	5	4	95	5
80.	Provides latest (today's) stock/share price	25	22	77	32
81.	Indicates time when stock/share price last updated	4	4	77	5
82.	Includes facility to graph stock over long time frames (at least 1 year)	15	13	77	19
83.	Displays 52 week (one year) stock/share high/low	15	13	77	19
84.	Provide monthly newsletter/market review	17	15	95	18
85.	Provide weekly newsletter/market review	7	6	95	7
86.	Provides historical financial information other than stock prices	40	35	95	42

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Appendix No 9: Usability Items

Table 9.8.b.1: Usability Information (General usability items) result compared with previous studies

Authors Year of Study Country of Study Usability Items	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
87. Company URL found by conducting a simple name search on Google or other Saudi popular search engines	NA	NA	NA	98	82
88. Common natural language of company name is used in URL address	NA	NA	NA	81	80
89. URL short (For compound domain names, avoid hyphens or special character, use all lower case letters, abbreviation used for three or more words).	NA	NA	NA	99	74
90. Name or logo of company easy to spot on Website	NA	NA	NA	99	84
91. Page titles between 2 to 6 words	NA	NA	NA	100	84
92. Language menu or change language option provided on home page (English & Arabic)	NA	32	NA	13	61
93. Website English-friendly	NA	NA	NA	15	80
94. Page not wider than screen (no horizontal scrolling required)	NA	NA	NA	99	84
95. Uses standard font sizes.	NA	NA	NA	99	83
96. Text stands still (no moving, blinking or zooming required)	NA	NA	NA	100	84
97. Text short and articles structured with subheadings connected by hypertext links to facilitate scannability (especially for users with dyslexia). Avoids links to scroll within a page	NA	NA	NA	98	83
98. Search facility available on every page in Website	NA	NA	NA	65	21
99. Spell checker embedded in search engine which provides list of clickable possible correct spelling options (important for users with spelling disabilities or foreign language users).	NA	NA	NA	5	1

Table 9.8.b.1, Continued

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
Usability Items					
100. Name or Logo clickable and linked to home page from anywhere on Website	NA	NA	NA	66	17
101. Hyperlinks change colors to distinguish between visited and unvisited links	NA	NA	NA	2	8
102. High contrast between foreground and background colours utilized to aid colour-blind users	NA	NA	NA	99	82
103. Avoids unnecessary scrolling. Important navigation and submit buttons prominently displayed.	NA	NA	NA	15	77
104. Consistent use of arrows such as having some control scrolling, while others expand and collapse lists	NA	NA	NA	98	83
105. Navigation area positioned on right/top side of screen (for English web site). (Avoids use of alternative navigational areas)	NA	NA	NA	NA	64
106. Navigation area positioned on left top side of screen (for English web site). (Avoids use of alternative navigational areas)	NA	NA	NA	94	77
107. Provides table of contents or link page at beginning of annual reports, or alphabetical index, including notes to financial statements	98	29	95	96	26
108. Each page in annual report links back to main table of contents from each page. Information in financial statements hyperlinked to notes to financial statements.	NA	NA	NA	37	9
109. Website contains search facility inside annual report (both HTML & PDF)	30	NA	NA	38	0
110. Utilizes consistent navigational structure.	NA	NA	NA	95	4
111.	NA	NA	NA	96	83

Table 9.8.b.2: Usability Items (Visibility Items) result compared with previous studies

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
Usability Items					
112. Visibility of internal search icon / link	NA	NA	NA	66	29
113. Visibility of site map / directory	NA	NA	NA	68	80
114. Visibility of user feedback / contact us	NA	NA	NA	91	81
115. Short and simple registration forms to register for email alerts	NA	NA	NA	87	14
116. Visibility (easy to find) latest annual report	NA	NA	NA	92	34
117. Visibility of financial snapshot	NA	NA	NA	56	62
118. Easy for users to find audit report (e.g. listed in a table of contents/menu)	NA	NA	NA	94	35
119. Visibility of directors and executive details	NA	NA	NA	79	10
120. Visibility of names and details of shariaa committee	NA	NA	NA		5
121. Visibility of corporate governance link (Home page "HP" / Investor Relations/ About the company)	NA	NA	NA	72	32
122. Visibility of social responsibility link (HP / Investor Relations/ About the company)	NA	NA	NA	65	30
123. Visibility of press releases (HP / Investor relations/ About the company)	NA	NA	NA	98	57
124. Visibility of Investor Relations link	NA	NA	NA	94	53

Table 9.8.b.2, Continued

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 .UK	This study 2008 Saudi
Usability Items					
125. Visibility of Investor Relations contact details in highly visible area of Investor Relations section	NA	NA	NA	88	58
126. Visibility of Investor FAQs	NA	NA	NA	44	20
127. Visibility (of investor glossary)	NA	NA	NA	19	9
128. Visibility of information on how to buy company stock (shares)	NA	NA	NA	66	24
129. Visibility of dividend history	NA	NA	NA	44	9
130. Visibility of stock (share) symbol	NA	NA	NA	87	19
131. Visibility of interactive stock chart	NA	NA	NA	85	14
132. Visibility of stock exchange(s) link	NA	NA	NA	25	34
133. Visibility of Analysts' details	NA	NA	NA	45	0
134. Visibility of site update	NA	NA	NA	6	19

Table 9.8.b.3: Usability Items (Presentation Items) result compared with previous studies

Authors Year of Study Country of Study	Usability Items	Percentage of companies include item from the total sample				
		Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	*This study 2008 Saudi
135.	Video of annual general meetings or press conferences provided	NA	NA	NA	27	0
136.	Videos available in versions with subtitles for users who are not native speaker or who have computers with no sound cards	NA	NA	NA	1	0
137.	Displays audio clips / recorded speeches from shareholder meetings or press conferences.	77	NA	NA	36	0
138.	Transcripts of any spoken audio clips provided	NA	NA	NA	18	1
139.	Transcript of video clips and proceedings provided	NA	NA	NA	15	1
140.	Provides slide presentations [PDF / PPT]	NA	NA	NA	75	12
141.	Displays presentation's length and / or user's current progress toward completing web cast.	NA	NA	NA	41	0
142.	Website provides detailed information for each web cast event.	NA	NA	NA	46	0
143.	In comparing company with peers and/or industry leaders, different coloured graph lines distinguishable (even by most colour-blind users)	NA	NA	NA	68	4
144.	Help link explains how to use graphing feature	NA	NA	NA	31	1
145.	Displays financial information in alternative languages (Arabic & English)	NA	NA	NA	*NA	39
146.	annual report in PDF format available	98	19	53	64	31
147.	annual report HTML format available	57	33	3	35	15
148.	annual report downloadable spreadsheet format available	14	NA	NA	2	0
149.	annual report WORD file available	NA	NA	NA	NA	4
150.	PDF of latest quarterly / interim report provided	NA	NA	NA	69	11
151.	HTML of latest quarterly / interim report provided	NA	NA	NA	21	3
152.	Downloadable spreadsheet of latest quarterly / interim report provided	NA	NA	NA	5	0
153.	WORD file of latest quarterly / interim report provided	NA	NA	NA	NA	2

Table 9.8.b.3, Continued

Authors Year of Study Country of Study	Percentage of companies include item from the total sample				
	Marston & Polei 2004 German	Xiao et al, 2004 China	Allam 2006 Int.	Abdelsalam et al 2006 UK	This study 2008 Saudi
Usability Items					
154. Cash flow statement present in PDF format	NA	NA	NA	67	32
155. Cash flow statement present in HTML format	NA	NA	NA	29	9
156. Cash flow statement present in downloadable spreadsheet format	NA	NA	NA	3	0
157. Cash flow statement present in WORD file	NA	NA	NA	NA	3
158. Shareholder information detail provided in PDF format	NA	NA	NA	NA	32
159. Shareholder information detail provided in HTML format	NA	NA	NA	NA	11
160. Shareholder information detail provided in WORD file	NA	NA	NA	NA	3
161. Audit report provided in PDF format	NA	NA	NA	32	30
162. Audit report provided in HTML format	NA	NA	NA	32	4
163. Audit report provided in WORD file	NA	NA	NA	NA	3
164. If audit report in PDF format, scanned image high quality	NA	NA	NA	68	26
165. For large PDF files, Website offers option to download document in smaller sections (more than 1 MB)	NA	NA	NA	15	12
166. For each PDF document provides gateway page that gives summary description of content and file size	NA	NA	NA	28	8
167. Provides separate print version for any long page	39	NA	NA	36	31

Table 9.8.c.1: Usability Items (General usability items)

Usability items		1	2 %	3	4 %
87.	Company URL found by conducting a simple name search on Google or other Saudi popular search engines	93	82	95	98
88.	Common natural language of company name is used in URL address	90	80	95	95
89.	URL short (For compound domain names, avoid hyphens or special character, use all lower case letters, abbreviation used for three or more words).	84	74	95	88
90.	Name or logo of company easy to spot on Website	95	84	95	100
91.	Page titles between 2 to 6 words	95	84	95	100
92.	Language menu or change language option provided on home page (English & Arabic)	69	61	95	73.
93.	Website English-friendly	90	80	91	99
94.	Page not wider than screen (no horizontal scrolling required)	95	84	95	100
95.	Uses standard font sizes.	94	83	95	99
96.	Text stands still (no moving, blinking or zooming required)	95	84	95	100
97.	Text short and articles structured with subheadings connected by hypertext links to facilitate scannability (especially for users with dyslexia). Avoids links to scroll within a page	94	83	95	99
98.	Search facility available on every page in Website	24	21	35	69
99.	Spell checker embedded in search engine which provides list of clickable possible correct spelling options (important for users with spelling disabilities or foreign language users).	1	1	35	3

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.8.c.1, Continued

Usability items		1	2 %	3	4 %
100.	Name or Logo clickable and linked to home page from anywhere on Website	19	17	95	20
101.	Hyperlinks change colors to distinguish between visited and unvisited links	9	8	95	9
102.	High contrast between foreground and background colours utilized to aid colour-blind users	93	82	95	98
103.	Avoids unnecessary scrolling. Important navigation and submit buttons prominently displayed.	87	77	95	92
104.	Consistent use of arrows such as having some control scrolling, while others expand and collapse lists	94	83	95	99
105.	Navigation area positioned on right/top side of screen (for English web site). (Avoids use of alternative navigational areas)	72	64	75	96
106.	Navigation area positioned on left top side of screen (for English web site). (Avoids use of alternative navigational areas)	87	77	89	98
107.	Provides table of contents or link page at beginning of annual reports, or alphabetical index, including notes to financial statements	29	26	40	73
108.	Each page in annual report links back to main table of contents from each page.	10	9	40	25
109.	Information in financial statements hyperlinked to notes to financial statements.	0	0	51	0
110.	Website contains search facility inside annual report (both HTML & PDF)	4	4	40	10
111.	Utilizes consistent navigational structure.	94	83	95	99

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.8.c.2: Usability Items (Visibility Items)

Usability items		1	2	3	4
			%		%
112.	Visibility of internal search icon / link	33	29	35	94
113.	Visibility of site map / directory	90	80	91	99
114.	Visibility of user feedback / contact us	92	81	93	99
115.	Short and simple registration forms to register for email alerts	16	14	17	94
116.	Visibility (easy to find) latest annual report	38	34	38	100
117.	Visibility of financial snapshot	70	62	73	96
118.	Easy for users to find audit report (e.g. listed in a table of contents/menu)	39	35	39	100
119.	Visibility of directors and executive details	11	10	11	100
120.	Visibility of names and details of sharia committee	6	5	6	100
121.	Visibility of corporate governance link (Home page "HP" / Investor Relations/ About the company)	36	32	41	88
122.	Visibility of social responsibility link (HP / Investor Relations/ About the company)	34	30	39	87
123.	Visibility of press releases (HP / Investor relations/ About the company)	64	57	69	93
124.	Visibility of Investor Relations link	60	53	66	91

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.8.c.2, Continued

Usability items		1	2 %	3	4 %
125.	Visibility of Investor Relations contact details in highly visible area of Investor Relations section	65	58	69	94
126.	Visibility of Investor FAQs	23	20	24	96
127.	Visibility (of investor glossary)	10	9	12	83
128.	Visibility of information on how to buy company stock (shares)	27	24	32	84
129.	Visibility of dividend history	10	9	19	53
130.	Visibility of stock (share) symbol	22	19	31	71
131.	Visibility of interactive stock chart	16	14	17	94
132.	Visibility of stock exchange(s) link	38	34	38	100
133.	Visibility of Analysts' details	0	0	1	0
134.	Visibility of site update	21	19	23	91

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.8.c.3: Usability Items (Presentation Items)

Usability items		1	2 %	3	4 %
135.	Video of annual general meetings or press conferences provided	0	0	95	0
136.	Videos available in versions with subtitles for users who are not native speaker or who have computers with no sound cards	0	0	0	0
137.	Displays audio clips / recorded speeches from shareholder meetings or press conferences.	0	0	95	0
138.	Transcripts of any spoken audio clips provided	1	1	1	100
139.	Transcript of video clips and proceedings provided	1	1	1	100
140.	Provides slide presentations [PDF / PPT]	13	12	95	14
141.	Screen displays presentation's length and / or user's current progress toward completing web cast.	0	0	0	0
142.	Website provides detailed information for each web cast event.	0	0	0	0
143.	In comparing company with peers and/or industry leaders, different coloured graph lines distinguishable (even by most colour-blind users)	4	4	8	50
144.	Help link explains how to use graphing feature	1	1	4	25
145.	Displays financial information in alternative languages (Arabic & English)	44	39	51	86
146.	annual report in PDF format available	35	31	40	88
147.	annual report HTML format available	17	15	40	43
148.	annual report downloadable spreadsheet format available	0	0	40	0
149.	annual report WORD file available	4	4	40	10
150.	PDF of latest quarterly / interim report provided	12	11	15	80
151.	HTML of latest quarterly / interim report provided	3	3	15	20
152.	Downloadable spreadsheet of latest quarterly / interim report provided	0	0	15	0
153.	WORD file of latest quarterly / interim report provided	2	2	15	13

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Table 9.8.c.3, Continued

Usability items		1	2 %	3	4 %
154.	Cash flow statement present in PDF format	36	32	46	78
155.	Cash flow statement present in HTML format	10	9	46	22
156.	Cash flow statement present in downloadable spreadsheet format	0	0	46	0
157.	Cash flow statement present in WORD file	3	3	46	7
158.	Shareholder information detail provided in PDF format	36	32	49	73
159.	Shareholder information detail provided in HTML format	12	11	49	24
160.	Shareholder information detail provided in WORD file	3	3	49	6
161.	Audit report provided in PDF format	34	30	39	87
162.	Audit report provided in HTML format	4	4	39	10
163.	Audit report provided in WORD file	3	3	39	8
164.	If audit report in PDF format, scanned image high quality	29	26	34	85
165.	For large PDF files, Website offers option to download document in smaller sections(more than 1 MB)	14	12	36	39
166.	For each PDF document provides gateway page that gives summary description of content and file size	9	8	37	24
167.	Provides separate print version for any long page	35	31	79	44

1= Number of companies disclosing item, 2= percentage of companies disclosing item from the total sample

3= Number of applicable companies, 4= percentage from applicable companies

Appendix NO 10: Regression Model 2 and 3 Results

Model 2 without institutional variable

the results of multiple regression model where the overall index of disclosure is the dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	1	.765	.585	.535	.13496

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	1	Regression	2.566	12	.214	11.742	.000
		Residual	1.821	100	.018		
		Total	4.388	112			

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Model 1	(Constant)	-.551	.166		-3.317	.001		
	Firm size	.048	.009	.495	5.356	.000	.486	2.059
	Firm profitability	-.263	.200	-.100	-1.316	.191	.716	1.397
	Industry type	-.071	.062	-.102	-1.137	.258	.512	1.952
	Stock market listed	.120	.042	.268	2.882	.005	.479	2.087
	Type of auditing firm	.046	.031	.113	1.468	.145	.697	1.435
	Government is a major shareholder	-.084	.108	-.136	-.777	.439	.135	7.385
	Proportion of government ownership	.121	.126	.163	.956	.341	.142	7.036
	Individual is a major shareholder	-.153	.069	-.382	-2.227	.028	.141	7.080
	Proportion of Individual ownership	.287	.089	.553	3.229	.002	.142	7.067
	Free float	-.093	.055	-.174	-1.683	.095	.387	2.586
	Role duality	.004	.038	.006	.096	.924	.946	1.057
	Board size	.006	.007	.067	.912	.364	.769	1.300

the results of multiple regression model where general content index of disclosure is a dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	2	.759	.576	.525	.18022

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	2	Regression	4.413	12	.368	11.323	.000
		Residual	3.248	100	.032		
		Total	7.661	112			

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Model	2	(Constant)	-.797	.222		-3.59	.001	
		Firm size	.065	.012	.506	5.420	.000	.486
		Firm profitability	-.489	.267	-.141	-1.83	.070	.716
		Industry type	-.072	.083	-.079	-.865	.389	.512
		Stock market listed	.169	.055	.287	3.052	.003	.479
		Type of auditing firm	.052	.042	.097	1.238	.219	.697
		Government is a major shareholder	-.064	.144	-.078	-.442	.660	.135
		Proportion of government ownership	.114	.169	.117	.675	.501	.142
		Individual is a major shareholder	-.169	.092	-.318	-1.84	.069	.141
		Proportion of Individual ownership	.311	.119	.453	2.617	.010	.142
		Free float	-.087	.074	-.123	-1.17	.244	.387
		Role duality	-.016	.051	-.020	-.302	.763	.946
		Board size	.010	.009	.079	1.061	.291	.769

The results of multiple regression model where the credibility index of disclosure is a dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	3	.756	.572	.521	.13954

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	3	Regression	2.602	12	.217	11.138	.000
		Residual	1.947	100	.019		
		Total	4.549	112			

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Model	3	(Constant)	-.611	.172		-3.56	.001	
		Firm size	.051	.009	.516	5.492	.000	.486
		Firm profitability	-.280	.206	-.105	-1.36	.178	.716
		Industry type	-.083	.065	-.118	-1.29	.199	.512
		Stock market listed	.103	.043	.226	2.392	.019	.479
		Type of auditing firm	.047	.033	.112	1.431	.156	.697
		Government is a major shareholder	-.098	.112	-.156	-.880	.381	.135
		Proportion of government ownership	.157	.131	.208	1.200	.233	.142
		Individual is a major shareholder	-.169	.071	-.413	-2.37	.019	.141
		Proportion of Individual ownership	.293	.092	.555	3.193	.002	.142
		Free float	-.082	.057	-.150	-1.43	.156	.387
		Role duality	.002	.040	.004	.062	.951	.946
		Board size	.003	.007	.028	.377	.707	.769

The results of the multiple regression model where usability index of disclosure is a dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	4	.737	.543	.488	.13080

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	4	Regression	2.032	12	.169	9.899	.000
		Residual	1.711	100	.017		
		Total	3.743	112			

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Model	4	(Constant)	-.410	.161		-2.546	.012	
		Firm size	.039	.009	.436	4.497	.000	.486
		Firm profitability	-.179	.194	-.074	-.924	.358	.716
		Industry type	-.067	.061	-.104	-1.100	.274	.512
		Stock market listed	.113	.040	.275	2.812	.006	.479
		Type of auditing firm	.044	.031	.116	1.438	.154	.697
		Government is a major shareholder	-.072	.105	-.126	-.688	.493	.135
		Proportion of government ownership	.102	.122	.150	.836	.405	.142
		Individual is a major shareholder	-.127	.067	-.342	-1.901	.060	.141
		Proportion of Individual ownership	.261	.086	.546	3.036	.003	.142
		Free float	-.099	.054	-.200	-1.840	.069	.387
		Role duality	.008	.037	.016	.223	.824	.946
		Board size	.008	.007	.092	1.193	.236	.769

Model 3 without ownership variable

the results of multiple regression model where the overall index of disclosure is the dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	1	.735	.540	.505	.13932

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	1	Regression	2.369	8	.296	15.258	.000
		Residual	2.019	104	.019		
		Total	4.388	112			

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Model	1	(Constant)	-.492	.166	-2.956	.004		
		Firm size	.047	.009	.479	.000	.531	1.882
		Firm profitability	-.234	.204	-.089	.254	.733	1.364
		Industry type	-.060	.063	-.087	.346	.528	1.893
		Stock market listed	.149	.040	.333	.000	.551	1.814
		Type of auditing firm	.044	.032	.109	.168	.718	1.393
		Free float	-.038	.045	-.072	.391	.631	1.584
		Role duality	.001	.040	.002	.981	.955	1.048
		Board size	.004	.007	.038	.610	.782	1.278

the results of multiple regression model where general content index of disclosure is a dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	2	.738	.545	.510	.18309

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	2	Regression	4.175	8	.522	15.570	.000
		Residual	3.486	104	.034		
		Total	7.661	112			

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Model	2	(Constant)	-.740	.219		-3.382	.001	
		Firm size	.064	.012	.497	5.475	.000	.531
		Firm profitability	-.464	.268	-.134	-1.734	.086	.733
		Industry type	-.056	.083	-.061	-.675	.501	.528
		Stock market listed	.198	.053	.335	3.762	.000	.551
		Type of auditing firm	.052	.042	.096	1.236	.219	.718
		Free float	-.032	.059	-.045	-.546	.586	.631
		Role duality	-.017	.052	-.023	-.335	.738	.955
		Board size	.007	.009	.054	.728	.468	.782

The results of multiple regression model where the credibility index of disclosure is a dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	3	.725	.526	.490	.14396

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	3	Regression	2.394	8	.299	14.440	.000
		Residual	2.155	104	.021		
		Total	4.549	112			

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Model	3	(Constant)	-.569	.172		-3.310	.001	
		Firm size	.051	.009	.511	5.521	.000	.531
		Firm profitability	-.250	.210	-.094	-1.190	.237	.733
		Industry type	-.068	.066	-.096	-1.037	.302	.528
		Stock market listed	.126	.041	.277	3.048	.003	.551
		Type of auditing firm	.047	.033	.113	1.422	.158	.718
		Free float	-.036	.046	-.067	-.788	.433	.631
		Role duality	.005	.041	.000	.001	.999	.955
		Board size	.005	.007	.000	-.002	.999	.782

The results of the multiple regression model where usability index of disclosure is a dependent variable

Model Summary

		R	R Square	Adjusted R Square	Std. Error of the Estimate
Model	4	.705	.498	.459	.13447

ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Model	4	Regression	1.863	8	.233	12.878	.000
		Residual	1.880	104	.018		
		Total	3.743	112			

Coefficients

			Unstandardize d Coefficients		Standardized Coefficients			Collinearity Statistics	
			B	Std. Error	Beta			t	Sig.
Model 4	(Constant)	-.348	.161		-2.167	.033			
	Firm size	.038	.009	.417	4.374	.000	.531	1.882	
	Firm profitability	-.148	.197	-.061	-.751	.455	.733	1.364	
	Industry type	-.059	.061	-.092	-.957	.341	.528	1.893	
	Stock market listed	.143	.039	.347	3.711	.000	.551	1.814	
	Type of auditing firm	.041	.031	.108	1.321	.189	.718	1.393	
	Free float	-.039	.043	-.078	-.896	.372	.631	1.584	
	Role duality	.005	.038	.010	.134	.894	.955	1.048	
	Board size	.005	.007	.064	.815	.417	.782	1.278	