DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT MARKETING OPERATIONS: A STUDY OF ANTECEDENTS AND CONSEQUENCES

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Abstract

Researchers are beginning to recognise that organisations often have different levels of market orientation across different aspects of their operations. Focusing on firms involved in export marketing, this study examines how market-oriented behaviour differs across firms' domestic and export marketing operations. In this respect, the study is the first of its kind since it investigates three main issues: (1) to what extent do differences exist in firms' levels of market-oriented behaviour in their domestic markets (i.e., their domestic market-oriented behaviour) and in their export markets (i.e., their export market-oriented behaviour), (2) what are the key drivers of such differences, and (3) what are the performance implications for firms of having different levels of domestic and export market-oriented behaviour.

To shed light on these research questions, data were collected from 225 British exporting firms using a mail questionnaire. Structural equation modelling techniques were used to develop and purify measures of all construct of interest, and to test the theoretical models developed. The results indicate that many of businesses sampled have very different levels of market orientation in their domestic and exporting operations: typically, firms tend to be more market-oriented in their domestic markets relative to their export markets.

Several key factors were identified as drivers of differences in market orientation levels across firms' domestic and export markets. In particular, it was found that differences were more pronounced when: (i) interfunctional interactions between domestic marketing and export marketing are rare, (ii) when domestic and export marketing follow asymmetric business strategies, (iii) when mutual dependence between the functions is low, (iv) when one or other of the functions dominates the firm's sales, and (v) when there are pronounced differences in the degree to which the domestic and the export markets are experiencing environmental turbulence.

The consequences of differences in market-oriented behaviour across firms' domestic and export markets were also studied. The results indicate that overall sales performance of firms (as determined by the composite of firms' domestic sales and export sales

performance) is positively related to levels of domestic market-oriented behaviour under high levels of environmental turbulence in firms' domestic markets. However, as domestic market turbulence decreases, so to does the strength of this positive relationship. On the other hand, export market-oriented behaviour provides a positive contribution to firms' overall sales success under conditions of relatively low export market turbulence. As the turbulence in export markets increases, this positive relationship becomes weaker. These findings indicate that there are numerous situations in which it is sub-optimal for firms to have identical levels of market-oriented behaviour in their domestic and exporting operations. The theoretical and practical implications of these findings are discussed.

DEDICATION

to my family,
Noriah
Aishah,
Luqman,
Suhail,
Sofwan,
Solehin.

for their love

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CHAPTER 1

INTRODUCTION

1.1 MARKET ORIENTATION: AN OVERVIEW

Ever since the two seminal papers in market orientation by Kohli and Jaworski (1990) and Narver and Slater (1990) were published, the amount of research work in this subject has risen dramatically. Significant progress has been made in the understanding, conceptualisation, and measurement of market orientation and evaluating its impact upon business performance in a range of different contexts. Academic debate has also persisted with scholars continuing to question the domain of market orientation, whether it is an organisational culture or behaviour, and some have come forward with different definitions and conceptualisations (see Cadogan 2003; Harris 2000; Pitt, Caruana and Berthon 1996).

Despite some of the inconsistencies within the definition of market orientation in the literature, the conceptual underpinning of market orientation first proposed by Kohli and Jaworski (1990) and Narver and Skater (1990) are consistent throughout (Cadogan et al. 2002). Kohli and Jaworski (1990) stress that market orientation consists of behavioural activities associated with gathering, disseminating and responding to intelligence about the market, while Narver and Slater (1990) suggest that market orientation consists of three behavioural components namely customer and competitor orientations and interfunctional coordination. Overall, market-oriented firms are argued to be those which collect information about their customers and competitors, disseminate this information to appropriate decision makers within the organisation, and then take appropriate actions to meet better the needs and wants of their customers and stakeholders (Cadogan et al. 2002; Gray et al. 1998; Ruekert 1992).

Empirical evidence appears to suggest that market-oriented behaviour and a market-focused culture are important determinants of a firm's performance and long-term success (e.g., Deshpande, Farley and Webster 1993; Homburg and Pflesser 2000; Jaworski and Kohli 1993; Kennedy, Goolsby and Arnould 2003; Narver and Slater

1990). Research on excellent business practices has also continuously stressed the importance of developing market orientation because such an orientation emphasises competitiveness by identifying customers' needs and hence offering products which are different from or better than competitors. The positive association between market orientation and organisational performance has also found support in various research settings (e.g. Baker and Sinkula 1999a; Bhuin 1998; Dawes 2000; Deshpande and Farley 1998a; Greenley 1995a; Grewal and Tansuhaj 2001; Kahn 1996; Pelham and Wilson 1996). In this context, Narver and Slater (1990) suggest that the organisational culture created through market orientation effectively and efficiently creates the necessary behaviour for developing superior value for customers and, thus, leads to business success. It has, therefore, been argued that all firms should strive to increase their levels of market orientation (e.g., Jaworski and Kohli 1993; Slater and Narver, 1994 and 2000).

Research in international marketing also suggests that firms' market-oriented behaviour in their exporting operations has a positive link to various measures of export indicators. Studies in this area, among others by Akyol and Akehurst (2003), Cadogan et al. (2002), Rose and Shoham (2002), and Thirkell and Dau (1998) have found evidence to support market orientation and performance relationship. In particular, firms' market-oriented behaviour specific to their export market is argued to have positive links to various measures of export performance. This is because, market-oriented exporters are able to enhance export performance by systematically using export specific market intelligence to understand better their export markets, and then develop product strategies to meet present and future wants and needs of their export customers (Cadogan et al. 2002; Diamanatopoulos and Cadogan 1996).

Overall, market orientation has emerged as a significant predictor of performance and is presumed to contribute to long-term success (Deshpande and Farley 1999). It has also been described as the cornerstone of marketing management and the marketing strategy paradigm (Hunt 2002) and has remained a research priority area for many years now (Marketing Science Institute). Subsequently, market orientation research has significantly influenced the development of marketing theory and knowledge (Day 1999; Hunt 2002).

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1.1.1 Market Orientation and Organisational Performance

While a number of conceptualisations of market orientation have been forwarded in recent years, the definition of the term has not gone beyond the implementation of the marketing concept (Cadogan and Diamantapoulos 1995; Deshpande and Farley 1998b; Gray et al. 1998; Harris 2001; Ruekert 1992). However, two of the most widely used definitions are those offered by Kohli and Jaworski (1990) and Narver and Slater (1990). Kohli and Jaworski's (1990, p.6) define market orientation as "the organisationwide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organisationwide responsiveness to it", while Narver and Slater (1990, p.21) argue that "market orientation is an organisational culture that most effectively and efficiently creates the necessary behaviour for the creation of superior value for buyers".

Although there is certainly merit in both views, the domain of market orientation is deeply rooted in the organisation cultural facets such as values and norms (Harris 1998), and organisational artefacts, stories, rituals and language (Cadogan 2003; Homburg and Pflesser 2000). However, of the various sub-dimensions of market orientation, empirical research has pointed out that only market-oriented behaviour have direct influence on organisational performance (Cadogan, Cui and Li 2003; Homburg and Pflesser 2000). The cultural aspects of market orientation such as norms, values and artefacts are, in fact, acting only as antecedents to market-oriented behaviour and thus have no direct association with organisational performance. Furthermore, the behavioural conceptual and operational approaches have been extensively validated and applied, and a number of studies have focused on specific behaviour which facilitate accuracy in market orientation implementation (e.g., Cadogan, Diamantopoulos and deMortanges 1999; Homburg and Pflesser 2000; Kohli, Jaworski and Kumar 1993; Rose and Shoham 2002). Thus the behavioural aspect of market orientation is used in this study.

Despite a strong call to link market orientation and organisational performance, scholars have also suggested that business environment could play a moderating role in

the relationship between market orientation and performance (Kohli and Jaworski 1990). However, the evidence from the Jaworski and Kohli (1993) and Slater and Narver (1994) studies did not provide support to the hypothesised moderating effects for any of the moderating variables under investigation. Nevertheless, more recent studies present evidence that market-oriented behaviour may be more important under certain environmental conditions, thus casting doubt about the universal applicability of market orientation. For instance, more recent evidence has shown that market orientation's relationship with several performance indicators is weaker or stronger depending on the environmental turbulence in the market (e.g., Cadogan et. al. 2002; Greenley 1995a, Grawel and Tansuhaj 2001; Gray et al. 1999; Homburg and Pflesser 2000; Pelham 1997a; Pulendren, Speed, Widing 2000).

Interestingly, despite the large amount of research conducted in this area, scholars have developed and empirically tested market orientation theories largely from context-free perspectives (Cadogan et al. 2001). In this respect, the vast majority of the research in the literature shows one common theme, best summed up by Uncles (2000, p. v) that market orientation studies implicitly consider organisations as *"concrete and singular"* and conceptualise market orientation as being a set of activities which occur at the organisation's *general* level. Furthermore, Uncles (2000, p. v) argues that "organisations are not concrete and singular (although this is implicitly how some researchers see market-oriented organisations)" while Kahn (2001, p.319) stresses that market orientation "should not necessarily be viewed as a company-wide orientation". In other words, researchers tend to assume that market-oriented behaviour is similar across the organisation (c.f. Cadogan et al. 2001).

However, recently, researchers are beginning to recognise that it is possible for organisations to have different levels of market orientation, such as across firms' functional or departmental levels (Cadogan et al. 2001; Kahn 2001; Tyler and Gnyawali 2002) and also across individual employees levels (e.g., Strieter, Celuch and Kasouf 1999). The literature on exporting is perhaps unique in this respect, since several researchers within the field have since made mention of implied differences between firms' domestic and export market orientation levels. In particular, Cadogan et al. (2001; 2002) have argued that a firm's level of market-oriented behaviour within its

domestic market will not necessarily be translated into its exporting activities, thus the implicit assumption that an organisation's general level of market orientation behaviour in its domestic and export markets "are all the one and the same" does not hold (Cadogan et al. 2001, p. 262). Thus, a firm's market orientation level can differ across their business operations (Cadogan et al. 2001; Kahn 2001; Rose and Shoham 2002).

The view that market orientation differs across firms' domestic and export markets is not entirely new, as noted by Hooley and Newcomb (1983, p 17 and 20) in an early review of the export performance literature: "perhaps the most pervading finding into export performance is the fact that many companies simply fail to carry forward any marketing orientation they may have developed in their domestic markets to [their export] markets… Management have been slow to adopt a market orientation in their [export] operations". Furthermore, empirical research has shown that factors that affect market orientation in a firm's domestic market may not automatically affect market-oriented behaviour in the firm's exporting markets (Cadogan et al. 2001). Thus, conceptualising market-oriented behaviour at the organisational general level seems inappropriate in the case of exporting organisations.

More importantly, Cadogan (2003), Cadogan and Diamantopoulos (1995) and Cadogan et al. (2001; 2002) point that the market orientation operationalisation for firms' exporting contexts needs to focus specifically on their exporting behaviour and exclude any reference to their domestic operations. This suggests that it is possible that some exporting firms are more likely to have higher market orientation in the domestic markets than in the export markets while for some others, the market orientation in the export markets may be higher than that of the domestic markets. It may also be possible that for some firms, the level of market orientation is similar across their domestic and export markets. Consequently for internationally active organisations that serve domestic and export markets, the operationalisation of market orientation may differ across these two markets.

1.2   RESEARCH GAP

In market orientation research, the potential link between domestic and export market-oriented behaviour and their effects on performance appear to provide a substantial opportunity for further research. Clearly, if it is true that market orientation does or can differ across a firm's functional units or departments, then conventional wisdom concerning the consistency of market orientation across the firm can be refuted. Furthermore, according to the same conventional wisdom, such differences would also appear to represent a sub-optimal situation for firms. That is, since high levels of market orientation are meant always to be beneficial (Slater and Narver 1994), a situation in which parts of a firm are less market-oriented than other areas should be sub-optimal. Similarly, it is not clear whether there are any specific factors that lead to such behavioural differences within an organisation, and whether the impact of market-oriented behaviour is always significantly positive on organisational performance. However, these broad issues have not yet been systematically and empirically investigated. Thus, this would seem to be an important area for research.

Against this background, additional research is needed in order to shed further insights on market orientation theory and practice. As a consequence, the study on the generation of empirical evidence concerning the market orientation behaviour of internationally active firms that have domestic and export operations and on whether that behaviour impacts upon firms' overall performance is merited. In this context, it is imperative that an instrument is developed which captures the essence of the constructs of interest. Importantly, the instrument should be able to capture any differences in magnitude between a firm's market-oriented behaviour levels in both its domestic and export marketing operations.

A second issue concerns the identification of those factors that may play a role in determining the difference in market-oriented behaviour across firms' domestic and export operations. There is a large body of literature which examines the antecedent variables specific to either domestic or export market-oriented behaviour. However, the specific variables that may have direct influence on a firm's differences on market-

oriented behaviour levels across their domestic and export operations have not yet been identified in prior studies.

The third and final issue concerns whether differences across firms' domestic and export markets have an impact on business performance. This is pertinent given that influential literature sources suggest that more market orientation is always better for businesses regardless of environmental conditions facing them (Jaworski and Kohli 1993, Slater and Narver 1994). From this perspective, firms should always strive to improve their market orientation levels. As a consequence, difference in market orientation across firms' domestic and export markets would represent situations in which either export or domestic market orientation levels lag behind the other. This would represent a sub-optimal position, which should be reflected in the firm's business success.

At the same time, other scholars are suggesting that more detailed research is needed into the relationship between market-oriented behaviour and business performance. For instance, some findings indicate that this relationship is moderated by environmental turbulence (Cadogan, Cui, and Li 2003; Gray et al. 1998; Greenley 1995a; Homburg and Pflesser 2000). Therefore, an additional question that needs to be answered is whether the environment moderates the market-oriented behaviour – performance relationship in the same way in *both* domestic and export markets.

Despite a large amount of empirical research that has explored aspects of market orientation, it is important to note that as far as the present literature is concerned, there is a void pertaining to the extent to which these constructs have been operationalised simultaneously across firms' domestic and export markets in one single research setting. A recent call by Homburg, Workman and Jensen (2000) also highlights that the marketing literature, so far, has focused mainly on individual organisational dimensions of market orientation without considering inter-relationships among them.

The export market orientation studies, for example, were mostly conducted in isolation from the domestic marketing context, thus implicitly assuming a ceteris paribus status of the influence of the domestic function on the export market-oriented behaviour

linked to export performance. Katsikeas, Leonidou and Morgan (2000, p. 497) in quoting Dalli (1994), Evangelista (1994) and Reid (1983) highlight an important issue: "[most] important, interrelationships among constituent elements of domestic and export marketing strategies, as well as their concurrent impact on both domestic and export business performance, have not been researched at all". They further suggest, "factors affecting export performance were not examined in relation to other strategic options, for instance, the allocation of organisational resources (domestic versus export business)". Cadogan et al. (2001) also share similar views that the interaction between a firm's domestic market-oriented and export market-oriented behaviour merits further investigation.

Secondly, while much research has focused on the impact of a firm's market orientation on various aspects of organisational performance, there is a gap in the literature concerning the exact nature of the relationship between the firm's market orientation behaviour in its domestic and export markets. For example, Katsikeas, Leonidou and Morgan (2000), raise the issue about the need to analyse a firm's strategies and their likely impact on both domestic and export performance. Furthermore, in line with assertions by Cadogan (2003), Morgan, Kaleka and Katsikeas (2004), and Zou and Stan (1998), it is important that the most appropriate level of analysis be performed so that the concurrent impact of market orientation behaviour on a firm's functional and overall performance can be ascertained.

Thirdly, studies related to the functional or departmental roles within organisations and their impacts on elements of market-oriented behaviour have been established in the past (see Griffin and Hauser 1996; Homburg, Workman, Krohmer 1999; Kahn and Mentzer 1998; Ruekert and Walker 1987a). However, thus far, no single study in the market orientation literature has looked into the interrelationship between different marketing functions and their likely impacts on performance. Hence, a study on the association between marketing functions, such as between domestic and export operations should provide new insights on the role of market orientation in marketing. Specifically, a study of internationally active firms' market orientation behaviour in their domestic and export markets should provide further insights and will advance knowledge in this area.

1.3   RESEARCH OBJECTIVES

Having identified the research gaps, the objectives of this study are threefold and follow from the above discussion. Essentially, the objectives are focused on eliciting theoretical and empirical evidence regarding internationally active firms' market orientation differences, the key antecedents to differences in firms' market-oriented behaviour levels across their domestic and export operations and whether such differences have any impact on their performance. In other words, this research seeks to determine whether the levels of market orientation as reflected by the degree of and emphasis on market orientation differ across exporting firms' domestic and export operations and if so, whether such difference will influence performance. More specifically, the three objectives set for this study are as follows:

1. To determine whether there are differences in market-oriented behaviour levels across firms' domestic and export operations.
2. Assuming that differences in market-oriented behaviour levels across firms' domestic and export operations are observed in some firms, to identify key factors that may drive such differences.
3. To examine the business performance-related consequences of differences in market-oriented behaviour levels across firms' domestic and export operations

In order to achieve these three objectives, of course, the development and validation of an instrument to capture differences in market-oriented behaviour levels across a firm's domestic and export operations is required. Currently, no method exists that has been shown to provide an accurate picture of such differences. Without such an instrument, few valid or generalisable conclusions can be drawn regarding the existence of such differences, or their antecedents or consequences.

The attainment of these three objectives is important for a number of reasons. Taking all the three together, they form the anticipated theoretical contribution of the thesis. The first contribution of this study concerns the identification of differences in market-oriented behaviour levels across firms' domestic and export marketing operations. This represents a new way of conceptualising market orientation – one that does not impose

a uniform level of market orientation across the corporation or strategic business unit's domestic and exporting activities. This reconceptualisation of how market orientation exists within the firm has implications for the theory of market-oriented behaviour and its management in exporting organisations. Importantly, the new conceptualisation means that market-oriented behaviour is no longer seen as a set of activities that one simply manages at the firm level. Rather, if market-oriented behaviour exists differentially across the firm's domestic and export functions, then differential management of market orientation may be required across the functional areas.

The attainment of the first objective, then, provides the platform on which the remaining two study objectives are based. Specifically, the second research objective is to identify the key factors that drive differences in market-oriented behaviour levels across firms' domestic and export marketing operations. The results provided by this study may help managers in the task of 'managing' market orientation levels within the firm.

The third contribution of this study is to assess the business performance-related consequences of firms' differential levels in market-oriented behaviour levels across their domestic and export operations. Currently, conventional wisdom suggests that market orientation is a good thing for all firms all the time, and that businesses should be striving to become more market-oriented (Jaworski and Kohli 1993; Narver and Slater 1990; Pelham and Wilson 1996; Subramaniam and Gopalakrishna 2001). However, this research study will shed new light on this issue. In particular, if a contingency theory perspective of market-oriented behaviour holds, one might expect the optimal levels of market-oriented behaviour to differ across firms' domestic and export markets depending on the level of environmental turbulence facing firms in their different markets (Cadogan, Cui and Li 2003; Gray et al. 1998; Greenley 1995a; Harris 2001; Homburg and Pflesser 2000).

For managers, there are also clear practical benefits to be gained from this study. Perhaps the most significant concerns the potential implications for guidance and recommendations concerning important resource allocation decisions. There is an implicit acknowledgement that becoming market oriented is expensive (Lukas 1999;

Slater and Narver 1994) and involves huge amounts of company resources in terms of real investment in a set of capital-intensive processes and activities (Steinman, Deshpande and Farley 2000). It is hoped that business organisations may benefit from this research in the following ways. Assuming that an internationally active firm has different levels of market orientation across its domestic and export operations and these differences lead to different performance outcomes, strategies to reduce, increase or maintain the later can be further developed.

Furthermore, given that it is important to know factors that influence differences in firms'market-oriented behaviour across their domestic and export operations, the identification of such factors should also be of practical use. For example, if an organisation wishes to narrow the differences, they will certainly benefit by knowing which factors affect behaviour. Management can effectively plan and allocate resources to achieve the objectives. Specifically, it will benefit the firm to know the mechanisms that affect the different levels of market orientation and thus can plan to meet these objectives.

The present study differs from any research in the field in that, the market orientation is operationalised at the firm's departmental or functional level and the inter-relationships within a firm's different function are analysed simultaneously. Here, market orientation will be operationalised at the firms' functional level. Similarly, all key variables pertinent to firms' domestic and export markets are differentiated in their specific context. Hence, organisational performance and business environment are measured at the domestic and export levels.

Therefore, given the current study objectives, and drawing from Cadogan, Diamantopoulos and Siguaw (2002), it is argued that export market-oriented behaviour consists of three generic export intelligence processing activities; export market intelligence generation, dissemination, and responsiveness (Cadogan, Diamantopoulos and deMortanges 1999). Thus, export market-oriented behaviour can be formally defined "as (a) the generation of market intelligence pertinent to the firm's exporting operations, (b) the dissemination of this information to appropriate decision makers, and (c) the design and implementation of responses directed towards export customers,

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export competitors, and other extraneous perspective export market factors, which affect the firm and its ability to provide superior value for export customers" (Cadogan, Diamantopoulos and Siguaw 2002, p. 616). The focus of export market orientation is specifically on a firm's export market, not its domestic market.

On the other hand, the exporting firms' market-oriented behaviour specific to the domestic market (hereafter referred to as domestic market-oriented behaviour) is based on the original work of Kohli and Jaworski (1990), with slight modification in order to focus specifically on their domestic operations. Thus domestic market-oriented behaviour refers to the generation of domestic market intelligence pertaining to current and future customer needs and wants, dissemination of the domestic market intelligence across departments and organisation-wide responsiveness to it. As discussed earlier, it is likely that the degree to which a firm's domestic market-oriented and export market-oriented behaviour differ. Thus, the gap between firms' market orientation behaviour across their domestic market-oriented behaviour and export market-oriented behaviour can be referred to as the market orientation difference. Specifically, differences in market-oriented behaviour levels across firms' domestic and export operations pertain to the difference in three aspects of firms' market orientation behaviour; differences in intelligence generation, intelligence dissemination and responsiveness activities across domestic and export operations.

1.4 OUTLINE OF THE THESIS STRUCTURE

In order to achieve the objectives outline above, this study is organised as follows (see figure 1.1. below).

Figure 1.1: Structural Overview of the Thesis

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                    ┌──────────────────────┐
                    │  Literature Review   │
                    └──────────┬───────────┘
                               │                    Chapter Two
                    ┌──────────▼───────────┐
                    │  Conceptualisation   │
                    └──────────┬───────────┘
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                    ┌──────────▼───────────┐
                    │ Hypothesis Development│            Chapter Three
                    └──────────┬───────────┘
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                    ┌──────────▼───────────┐
                    │ Questionnaire Design │
                    └──────────┬───────────┘
                               │
                    ┌──────────▼───────────┐
                    │     Pretesting       │            Chapter Four
                    └──────────┬───────────┘
                               │
                    ┌──────────▼───────────┐
                    │  Main Mail Survey    │
                    └──────────┬───────────┘
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        ┌──────────┌──────────▼───────────┐
        │          │ Descriptive Analysis │
        │          └──────────┬───────────┘
        │                     │                        Chapter Five
        │          ┌──────────▼───────────┐
        │          │ Measure Development  │
        │          └──────────┬───────────┘
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        │          ┌──────────▼───────────┐
        └─────────▶│    Model Testing     │            Chapter Six
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                   │     Discussion       │            Chapter Seven
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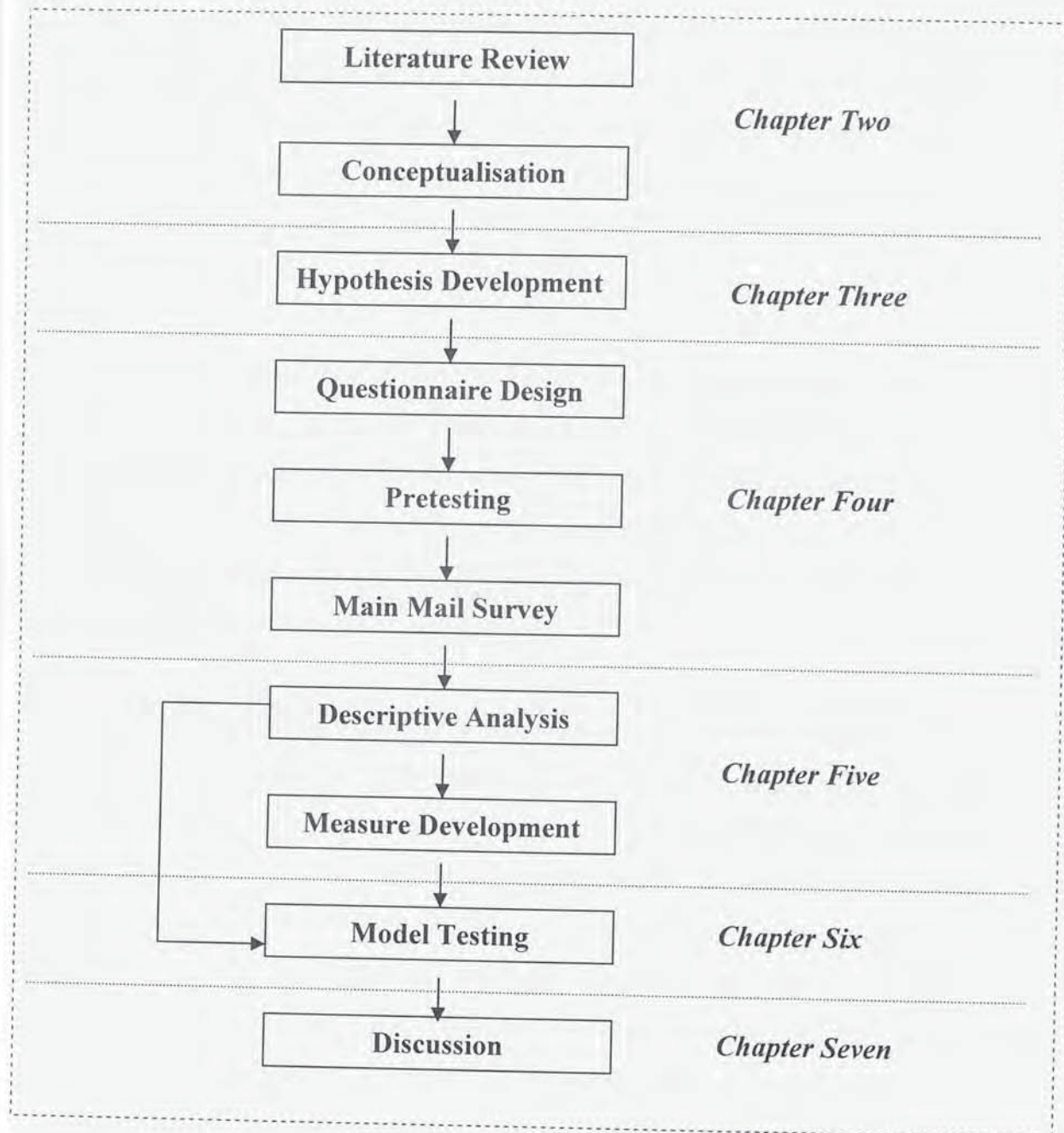
Chapter Two provides a review of the relevant conceptual and empirical literature related to market orientation studies in firms, both domestic and export markets. The empirical evidence is examined and then compared in order to provide an in-depth perspective of the different factors that lead to market orientation behaviour in the

firms' domestic and export markets. The consequences of market orientation on organisational performance are analysed and the possible effect of environmental moderators is also highlighted. This is followed by a discussion on level issues and their implications in market orientation studies. Hence, the literature presented in this chapter provides a rationale for studying firms' market orientation difference.

Chapter Three draws on the previous chapter to provide two conceptual models of market orientation difference. The first framework is on the antecedents to market orientation difference and the second model is concerned with the consequences of implementing domestic and export market orientation on several measures of organisational performance. The hypotheses pertaining to these linkages are presented, based on theoretical and empirical findings.

Chapter Four presents a comprehensive description of the methodology employed to investigate quantitatively the conceptual models of market orientation difference. These include the theoretical justification for the description of the research design, operational definitions of the variables, and instrumental refinements. Details of the pilot study and main study are also provided, including sampling procedure, data collection method and non-response analysis.

Chapter Five presents the results of the descriptive analysis of the response from the main survey. It provides the profile and characteristics of the responding companies, utilises statistics relating to the central tendency, measures of dispersion and others. This description is important as it could provide insights for the discussion of the quantitative findings in later chapters. This chapter also includes the measure development description for all new and established constructs used in this study. More specifically, all multi-item scales used in this study are analysed for their psychometric properties using established procedures from the measure development literature. The actual measure construction and purification is then described, followed by assessments of reliability and validity.

Chapter Six is the analysis and testing chapter, in which the models developed in Chapter Three are tested. The analysis strategy adopted in this study is described and subsequently the results of the hypotheses are presented.

Chapter Seven concludes the thesis by drawing together the findings generated from previous chapters. The significance of the findings and their theoretical and managerial implications are discussed. Finally, the limitations of the study are outlined, and several recommendations for future research are proposed.

CHAPTER 2

MARKET ORIENTATION: A LITERATURE-BASED ASSESSMENT

2.1 INTRODUCTION

Before embarking on field research on firms' market-oriented behaviour across their domestic and export operations, a review of the literature was undertaken to develop a sound basis for the elaboration of a framework developed in this study. This stage is also necessary for the development of specific, directional hypotheses to guide implementation and data analysis that exporting organisations may possibly have different levels of market-oriented behaviour across their domestic and export operations. In this chapter, the literature on antecedents and consequences of market-oriented behaviour are assessed through an examination of empirical research in the strategic marketing and exporting domains. As a result of this process, the chapter shows that although researchers have looked in detail into market orientation and its antecedents and performance relationships, questions still remain about the possibility of environmental turbulence moderating the market orientation – performance relationships. Furthermore, an examination of levels issues points to the possibility that differences in the market-oriented behaviour levels across firms' domestic and export operations are important avenues for theoretical development and empirical investigation.

This chapter is divided into eight sections. Section 2.2 describes the general overview of market orientation. Generally, two main approaches to studying market orientation have been identified in the current literature; the philosophical and behavioural approaches, and these are discussed in some detail in Section 2.3. Following this, in Section 2.4 the key antecedents to market orientation are examined, follow by the performance consequences of market orientation (Section 2.5). Subsequently, Section 2.6 incorporates the levels issues in studies of market orientation. The implications for the present research are drawn in Section 2.7. Finally, a chapter summary is provided in Section 2.8.

2.2 GENERAL OVERVIEW OF MARKET ORIENTATION

Dating back to as far as half century ago, marketing thinkers such as Drucker (1954), Levitt (1960) and Kotler and Levy (1969) conceptualise the marketing concept as a business philosophy. It requires the business organisation to focus outwards to its environment (customers and competitors) and internally in order to be more responsive to the environment. About 40 years later, in a rather influential paper, Hunt and Morgan (1995, p. 11) state that "(1) all areas of the firm should be customer oriented, (2) all marketing activities should be integrated, and (3) profits, not just sales, should be the objective".

Hunt and Morgan are not the only ones who examine and provide new meaning to the marketing concept. Rather the last decade has seen a large number of academics in this area provide several definitions, sometimes contradictory, to the market orientation construct. For example, Narver and Slater (1990) and Shapiro (1988) describe market orientation as the coordination and integration of the firm's resources, directed towards the creation of superior customer value, while Hunt and Morgan (1995, p. 11), suggest: "a market orientation... is not the same thing as, nor a different form of, nor the implementation of, the marketing concept". Ruekert (1992, p. 228) on the other hand, define market orientation as "the degree to which the business unit (1) obtains and uses information from customers; (2) develop a strategy which will meet customer needs; and (3) implements that strategy by being responsive to customers needs and wants". Ruekert's definition of market orientation goes along with Kohli and Jaworski's operationalisation of the concept which encompasses three set of activities-- generation of market intelligence, dissemination of the intelligence across departments, and organisation-wide responsiveness to it. Despite various terms used to describe market orientation, Shapiro (1988) argues that the phrase 'market orientation', 'market orientation', 'marketing oriented', 'customer oriented', 'close to the customer' and 'market driven' are synonymous with only few distinctions.

Lafferty and Hult (2001) in their review of literature later conclude that the term market orientation refers to the implementation of marketing concept, while Pulendren and Speed (1996, p. 2034), provide assurance that the "distinction between the business philosophy (marketing concept) and the specific activities required for

implementation of that philosophy (market orientation) has now been widely accepted within the research community". It is interesting to note that despite these assertions, the confusion over what constitutes a market orientation has yet to be resolved and the debate is still present in the literature[1].

In the following section, the philosophical and behavioural perspectives of market orientation are discussed. They somehow represent the extreme on a continuum and should provide the essence of the perspective adopted.

2.3 MARKET ORIENTATION: PHILOSOPHY VERSUS BEHAVIOUR

2.3.1 Market Orientation as a Philosophy

The philosophical standpoint to market orientation is based on the assumption that the marketing concept and market orientation are the same (Shapiro 1988). Accordingly, the marketing concept, which derives from an organisational culture perspective, is the driving business philosophy of market-oriented organisations (Cadogan 2003). For example, Dreher (1994, p. 155) argues that firms' market orientation is "embedded in the cognitive sphere and influenced by personal factors, leading to a certain view of reality and forming organisational characteristics such as goals, strategies, structures, systems and activities". Extending this argument, Cadogan (2003) asserts that the philosophical perspective of market orientation pertains to the organisation cognition (i.e., an intangible organisational state-of-mind) which "emphasise philosophical notions such as customer-oriented values, norms and beliefs, market and customer focus" (Cadogan 2003, p. 101).

Narver and Slater (1998, p. 235) in re-emphasising that market orientation is a culture (as they originally argued) state that "empirical evidence strongly contradicts the idea that market orientation is other than the manifestation of a culture". However, despite the proposition that maket orientation is a philosophy of doing business, Narver and Slater's operationalization of the construct's dimensions namely customer orientation,

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[1] For an interesting insights, see for example, Deshpande and Farley (1998a), and Narver and Slater's (1998) reply and Deshpande and Farley's (1998b) counter reply; see also Tuominen and Moller (1996).

competitor orientation and interfunctional coordination are purely behavioural (Cadogan and Dimanatopoulos 1995; Lafferty and Hult 2001). Furthermore, out of their 15-item scale for the market orientation construct, only one item appears to deal specifically with cultural values (c.f. Deshpande and Farley 1998b). In reinforcing their original position, Narver and Slater (1998, p. 235) maintain that "[a] culture necessarily manifests itself in activities" and therefore "[of] course, one measures market orientation by measuring certain specific activities, but in doing so we are measuring the manifestations of an underlying belief system... yes, the culture".

Deshpande and Webster (1989) and Deshpande, Farley and Webster (1993 and 2000) also appear to approach market orientation from a philosophical perspective. In their study they use the term "customer orientation" to describe a specific set of beliefs that puts the customers' interest first and ahead of other stakeholders. This is based on the premise that for an organisation to achieve superior performance on a consistent basis, it must create a sustainable competitive advantage (Aaker 1989; Porter 1985). Hooley Lynch and Shepherd (1990, p. 7) also appear to take on similar perspective, viewing market orientation as a guiding philosophy for the entire organisation. They state that "marketing is clearly an organisational philosophy – an approach to doing business" suggesting that through the development of attitudes and values within the organisation, business performance will be improved.

Homburg and Pflesser (2000), in an attempt to re-examine the market-oriented culture paradigm, make an explicit suggestion that organisational culture such as shared values, norms and artefacts are in fact, antecedents to firms' market-oriented behaviour. This approach is, however, consistent with the philosophical view. Specifically Slater and Narver (1995) describe market orientation as a value system which provides strong norms concerning behaviour and information interpretation. Furthermore, in a relatively recent article, Narver and Slater (1998, p.235) argue that "[only] such a strong culture can produce such consistent behaviour and performance". This further suggests the presence of normative behaviour indicating the existence of market-oriented culture in the organisation.

Another perspective of market-oriented culture comes from Harris (1998b, p. 360) who states that market orientation is "the dominant, dynamic segment of an organisation whose orientation, attitudes and actions are geared towards the markets". Harris' (1998b) view of market orientation culture comes from the work of Schein (1992), Narver and Slater (1990), Hatch (1993) and Webster (1993). Others who have taken a similar position in their definitions of philosophical market orientation include Kennedy, Goolsby and Arnould (2003), Lichental and Wilson (1992), and Webster (1993).

In short, the underlying assumption of the philosophical perspective of market orientation is that organisational attitudes, values and beliefs determine the firms' behaviour, and ultimately their performance. The philosophical view can be distinguished from the behavioural perspective on this basic principle, and is discussed in the following section.

2.3.2 Market Orientation as a Behaviour

The behavioural approach to market orientation focuses on the set of information processing activities which underpin market orientation within the firm (Cadogan 2003). While it could be argued that a firm may be highly market-oriented from a philosophical perspective, its behaviour may not necessarily be market-oriented (Cadogan 2003, Felton 1959, Jaworski and Kohli 1996). Accordingly, from a behavioural perspective, an organisation's shared values and beliefs cannot automatically be transferred to its market-oriented behaviour. As such, the adoption of the marketing concept as a philosophy does not necessarily predict market-oriented behaviour.

Examining market orientation from the behavioural perspective requires the assessment and evaluation of a firm's actions, rather than its values and beliefs. Thus the adoption of marketing philosophy is important only to the extent that it may lead firms to embrace market-oriented behaviour (Cadogan 2003, Kohli and Jaworski 1990). Thus, the behaviourist position is that market orientation *is* the implementation of the marketing concept, and requires that the actions be measured through continuous assessment (e.g., Cadogan 2003; Deshpande and Farley 1998a; Kohli and

Joworski 1990; Ruekert 1992). Behavioural scholars concur to the three most widely used generic activities in operationalising the *implementation* construct of market orientation. It consists of the generation of market intelligence, dissemination of market intelligence, and the appropriate analysis and response to that intelligence (e.g., Bhuin 1998; Cadogan, Diamantopoulos and Siguaw 2002; Homburg and Pflesser 2000; Kohli and Jaworski 1990; Matsuno and Mentzer 2000; Ruekert 1992).

2.3.2.1 Generation of Market Intelligence

Kohli and Jaworski (1990) advocate collecting market information from customers about their needs and preferences. Market intelligence is, however, a broader concept. Narver and Slater (1990) and Day (1990) recognize this and argue that information about customers' wants and needs, and competitors' activities are required for the market-oriented organisation. However, Kohli and Jaworski (1990) broaden this construct to include consideration about exogenous market factors such as competition, technology, and regulations, that have direct and indirect effects on customers' present and future needs and preferences.

The generation of market intelligence can be done through a variety of sources, both internal and external. Information can and should be generated in departments throughout the organisation and is not the exclusive responsibility of a marketing department (Cadogan and Diamantoupolos 1995; Kohli and Jaworski 1990). Other departments such as research and development, manufacturing, and export, may also feed necessary information obtained from various sources such as from clients, conferences, and trade journals. However, recent developments in the literature on the market orientation suggest that too much information about customers and immediate market information may be characterised as narrow and myopic (Day 1994; Hart, Tzokas and Saren 1998; Slater and Narver 1995). Furthermore, the acquisition of lots of information may not necessarily be useful (McAucley 1993). It is the quality of available information that is critical so that firm can the information to analyse customers wants and needs optimally (Douglas and Craig 1992; Cavusgil 1985).

2.3.2.2 Dissemination of Market Intelligence

The intelligence dissemination mechanism of a market orientation relates to the diffusion of the intelligence generated throughout the organisation. As market intelligence is not the sole responsibility of the marketing function, it needs to be disseminated to the members of the entire organisation. Kohli and Jaworski (1990, p. 5) specifically propose that "market intelligence must be communicated, disseminated and perhaps even sold to relevant departments and individuals in the organisation" in order to become accustomed to the market needs. To be maximally effective, this activity must be done through formal and informal means, and the market intelligence must flow both laterally and vertically within organisations (Cadogan and Diamantopoulos 1995; Kennedy, Goolsby and Arnould 2003; Maltz and Kohli 1996; Zeithaml, Berry and Parasuraman 1988). Furthermore, market intelligence dissemination provides a shared basis for concerted actions among organisation's various functions and departments (Kohli and Jaworski 1990; Shapiro 1988).

Narver and Slater's (1990) conceptualisation of market orientation also stress the need for dissemination of market intelligence and this can be done through interfunctional coordination. Dissemination of information is necessary because all employees in all departments have the potential to contribute to customer value, thus requiring them to understand customer and competitor so that they can develop plans to heighten customer values.

However, decision makers may sometimes use selective attention and value judgements to screen out elements of the information received, thus focussing on the information which they perceive to carry the most value (Moorhead and Griffin 1992). This however, may affect the accuracy, quality and speed of response. To be effective, greater resources are required to enhance coordination and planning among various departments and functions.

2.3.2.3 Responsiveness to Market Intelligence

Response design and response implementation refer to the action taken in response to market intelligence generated and disseminated in the earlier stages. Specifically,

Kohli and Jaworski (1990, p. 6) define responsiveness as "selecting target markets, designing and offering products/services that cater to current and anticipated needs, and producing, distributing and promoting the products in a way that elicits favourable end-customer response". The market-oriented organisation also has to respond to or act on the market intelligence gathered or disseminated. Unless an organisation responds to the collected market information, little is accomplished. This action takes on the form of selecting target markets, designing and offering products and services that meet present and anticipated needs, and producing, distributing, and promoting products and services in a way that elicits favourable customer response (Kohli and Jaworski 1990).

An organisation's degree of market orientation thus would depend on the extent to which it successfully gathers information about competitors and customers, disseminates this information to relevant organisational parties, and responds and acts on the information gathered and disseminated. Market orientation is also more than a boundary-spanning activity; thus all parties in the organisation must act on the information to provide value for the customer and, thus obtain sustainable advantage. Thus the market-oriented organisation is able to provide superior behaviour in undertaking and satisfying customers (Day 1990; Narver and Slater 1990). Having provided an overview of the perspectives that have been used in various market orientation studies, in the following section, key factors that have been found to influence market orientation are discussed.

2.4 KEY ANTECEDENTS TO MARKET-ORIENTED BEHAVIOUR

In this section, key determinants of market-oriented behaviour are discussed. A review of the literature resulted in the identification of several variables that have been found to influence firms' market-oriented behaviour. The identification of these factors is important as it provides a strong route for strategy in developing (and impeding) market-oriented behaviour. However, the scarcity of research on the antecedents to market orientation seems notable, what Morgan and Strong (1998, p. 1052) comment as "the relative dearth of research investigating such antecedents", considering a lot of

research effort has been put on evaluating the consequences of market orientation on organisational performance.

The pioneering study examining antecedents to a market orientation is Jaworski and Kohli (1993). The authors identified several factors such as top management emphasis, inter-departmental factors, organizational structures and systems that affect the level of market orientation achieved. These findings form the basis of later study by, among others, Avlonitis and Gounaris (1999), Bhuian (1998) and Harris (2000) to address the issue of why some firms are more market-oriented than others. Furthermore, market orientation research also has been undertaken in the international marketing field. Specifically, the international marketing literature has looked at the market orientation specific to firms' exporting operations. For instance Cadogan et al. (2001) and Cadogan, Diamantopoulos and Siguaw (2002) have studied the key determinants and consequences of the firms' market-oriented behaviour specific to their export markets. The contention from these models is that firms' market-oriented behaviour in their export markets may not necessary the same as their domestic markets (Cadogan and Diamantopoulos 1995). To conceptualise market-oriented behaviour at the exporting levels, researchers need to exclude any reference to firms' domestic market-oriented activities and focus on their export-specific operations (Cadogan et al. 2001). Likewise, by default, the activities of firms' market orientation activities in their domestic markets (and *not* the export markets) can be termed as domestic market-oriented activities. Nevertheless, research that specifically investigates domestic market orientation is rare.

Cadogan et al.'s (2001) study of antecedents to market-oriented behaviour focuses on firms' exporting operations, and thus the findings are applicable to firms' exporting contexts. On the other hand, Jaworski and Kohli's (1993) empirical study investigates factors associated with firms' antecedents and consequences of market-oriented behaviour at a firm's general levels. Their study takes a general overview of market orientation across organisational levels since "it contained questions aimed at capturing the essence of firms' market-oriented behaviour by sampling across a broad range of exogenous market factors" (Cadogan 2003, p. 114). From an international marketing perspective, the absence of an export-specific focus in the conceptualisation

and operationalisation of market-oriented behaviour suggests that context-free studies may be domestically biased (Cadogan 2003; Cadogan et al. 2001). Similarly, studies that adopt a general approach to market orientation such as those undertaken by scholars such as Harris (2000), Pulendran, Speed and Widing (2000) and Ruekert (1992) falls within this context and thus, can be seen as more inclined towards domestic operations.

In summary, the approach taken by these scholars can be viewed as conceptualising market orientation at the domestic level. In doing so, the Kohli and Jaworski (1990) three component conceptualisation of market orientation is used as a reference to define domestic market-oriented behaviour. The definition recognises the degree which firms exhibit market-oriented behaviour in their domestic operations. Specifically, domestic market-oriented behaviour consists of three set of activities: (a) organisation-wide generation of market intelligence pertaining to current and future customers needs specific to firms' domestic markets, (b) dissemination of market intelligence across departments, and (c) organisation-wide responsiveness to it. This definition is focussed towards firms' domestic operations and excludes and reference to firms' export business operations.

Following Cadogan, Diamantapoulos and de Mortanges (1999) and Cadogan, Diamantopoulos and Siguaw (2002), export market-oriented behaviour is defined as (a) the generation of market information which is relevant to export operations (e.g., identifying export customer needs and wants, identifying new export competitors); (b) the dissemination of that information to appropriate decision makers (i.e., informal and formal exchanges of important export market related intelligence); and (c) the development and execution of responses and tactics directed towards the export market (e.g., product adaptation for the export market, responses to competitive actions). The export market-oriented behaviour definition explicitly focuses of firms' export market-oriented behaviour as being towards the firms' export markets and not the domestic market.

The antecedents as highlighted in the literature can be classified into six major categories and they act as drivers or obstacles to a firm's market-oriented behaviour

and thus determine the degree to which an organisation inclines towards that behaviour and they are discussed next.

2.4.1   Top Management Factors

Management Emphasis on Market-oriented Behaviour

The literature is almost in agreement that leadership by key management plays an important role in shaping the behaviour of individuals in a firm and the firm's performance (Cadogan et al. 2001; Kohli and Jaworski 1990; Jaworski and Kohli 1993; Pulendran, Speed and Widing 2000; Webster 1998). For example, Kohli and Jaworski (1990, p. 7) found from their qualitative research that "[t]he role of senior management [is] one of the most important factors in fostering a market orientation". Thus the development of market orientation needs to start from the top management. Top management emphasis and commitment to market orientation is significant for the successful implementation of market orientation.

There is often an assumed gap between what senior managers say and what they do. Thus, the more the top management is genuinely committed to market-oriented activities, the greater the effects it would be to the organisation. Hooley and Newcomb (1983) provide support for this notion, suggesting that management emphasis on export market orientation will lead to higher resources allocation for export oriented activities such as increase in the level of market research, and higher number of employees to manage export operations. Leadership is a necessary condition for a transition towards market orientation as senior managers are responsible to make strategic decisions. Furthermore, the leadership styles may provide an environment in which market orientation can be fostered (Harris 1998a). By communicating to employees about the importance of behaving in a market-oriented fashion, it gives employees a clear message and signals the importance of being responsive to customer needs, without which, the organisation is not likely to be market-oriented.

Furthermore, continuous reinforcement and the strong commitment of senior management is required to encourage all parties to generate, disseminate and respond to market intelligence (Harris 1998a; Levitt 1969; Webster 1988). Top management behaviour that is conflictual or politically motivated is negatively associated with the degree of organisational market orientation (Harris and Piercy 1999). Thus, without top management support and emphasis, a market orientation behaviour is unlikely to take place company-wide (Day 1994; Kennedy, Goolsby and Arnould 2003). Studies by, among others, Bhuian (1998), Jaworski and Kohli (1993) and Pulendran, Speed and Widing (2000) provide empirical support to this notion.

Risk Aversion

Risk aversion refers to the top management's risk seeking or averse propensity. Kohli and Jaworski's (1990) suggest that senior management risk postures is negatively associated with market-oriented behaviour. This link can be traced to the literature in the organisational culture such as metaphor, shared values, symbols and artefacts which is theorised to guide organisation general behaviour (e.g., Deshpande and Webster 1989; Harris 2000; Homburg and Pflesser 2000). A study by Hooley, Lynch and Shepherd (1990) of UK businesses demonstrates that two-thirds of the CEOs saw marketing as a guiding philosophy for the entire organisation. Thus, senior management commitment on activities related to market orientation could provide clear and strong indicators to employees to embark on market intelligence generation, dissemination and responsiveness activities. Avlonitis and Gounaris's (1999) study provides support for this association suggesting that management's risk averse tendencies are negatively related to a firm's market-oriented behaviour.

On the other hand, the findings of Jaworski and Kohli's (1993) only reveal partial support for this proposition. Of the three market orientation components, only responsiveness is significantly affected by top management risk averse behaviour. The implied findings from a Scandanivian study also points to the same conclusion (Selnes, Jaworski and Kohli 1996). According to Jaworski and Kohli (1993), top management risk seeking tendencies would provide a signal to employees about their willingness to take risks, openness to new ideas, and acceptance of occasional failure, when responding to customers needs and wants. Management needs to encourage innovative

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ideas and hence should not be overly risk averse. For example, developing ideas into products and services requires substantial investment in terms of time and resources and management willingness to accept occasional failures would signal their willingness to accept tolerance risk levels. This would help to further promote employees' creativity and problem solving ideas and hence heighten a firm's market-oriented behaviour. Thus, a firm's degree of market orientation is dependent on the extent to which managers reinforce risk-seeking behaviour throughout organisation (c.f. Harris and Ogbonna 2001; Kohli and Jaworski 1990).

Management Commitment

Strong management commitment to exports is also an important determinant of firms' export success (Aaby and Slater 1989). Cavusgil (1984) suggests that senior management's involvement and attitudes about firms' export markets will have greater influence on their export behaviour. This is because a lack of knowledge about export markets may inhibit firms' commitment to export (Eshghi 1992). Extant literature in the export marketing has suggested that as firms' export commitment increases, the perceived need for export market intelligence is even greater (Cadogan et al. 2001; Diamantopoulos and Cadogan 1996). Managers are more likely to allocate organisation resources to heighten export market-oriented behaviour through a higher degree of generation, dissemination and responsiveness of export market intelligence. Thus top management attitudes and commitment to exporting will have positive influence on the degree of export involvement, and in turn improve levels of firms' export market-oriented behaviour.

2.4.2 Interdepartmental Dynamics

Three interdepartmental dynamics variables that have a direct effect on firms' levels of market orientation were identified and they are interdepartmental conflict, interdepartmental connectedness and export coordination (Cadogan et al. 2001; Jaworski and Kohli 1993).

Interdepartmental Conflict

Several scholars emphasise that interdepartmental conflict may inhibit employees' behaviour pertaining to market intelligence generation, dissemination, and responsiveness. Research has also shown that conflict may result in a reduction in the quantity and quality of information shared across departments (Barclay 1991) and interfunctional performance (Weinrauch and Anderson 1982). Interfunctional conflict also has the potential to contribute to a breakdown in communications (Ruekert and Walker 1987), secrecy and heighten rivalry, thus reducing interfunctional performance (Pulendran, Speed and Widing 2000). Studies by Bhuian (1998) and Jaworski and Kohli (1993) provide support to this argument that interdepartmental conflict is indeed an inhibiting factor to market-oriented behaviour.

Interfunctional Connectedness

While interdepartmental conflict may be detrimental to the implementation of market orientation (Bhuin 1998; Ruekert and Walker 1987), connectedness between functions and departments facilitates interactions and information exchange (Harris 2000; Ruekert and Walker 1987). Kohli and Jaworski (1990, p. 9) define interfunctional connectedness as "the degree of formal and informal direct contact among employees across department" thus connectedness facilitate positive information exchange and interdependency among organisation's departments and functions (Jaworski and Kohli 1993). Deshpande and Zaltman (1982) postulate that connectedness encourage generation and dissemination of market information, and also allow for its appropriate utilisation.

In situations where departments are interconnected, the level of communication and dissemination of market intelligence could be enhanced. In their empirical work, Jaworski and Kohli (1993), and Avlonitis and Gounaris (1999) found support for this proposition, suggesting that connectedness increases a firm's ability to act in a consistent and concerted manner towards their customers.

Diamantopoulos and Cadogan (1996, p. 44) state that coordination "plays an important role in steering market orientation within companies" as it is concerned with the interaction between the exporting unit and other business functions. This relationship can be linked to the marketing literature which points to strong support for the association between firms' coordinating mechanism and their market-oriented behaviour. This is because coordinating mechanisms are a part of organisation culture (Narver and Slater 1990) and play a major role in unifying firms' capabilities into a cohesive whole (Day 1994). Furthermore, Diamantopoulos and Cadogan (1996) state that fundamental to the coordinating mechanism is communication, not merely seen as dissemination of intelligence, but as a method for cultivating and maintaining relationships. They also suggest that shared culture and vision, lack of conflict and aligned goals are an integral part of an effective coordinating mechanism in exporting organisations.

For example, firms' strong export coordination will influence their export market-oriented behaviour. Different departments and functions within the organisation must share a desire for export success (Cadogan et al. 2001; Cadogan, Diamantopoulos and Siguaw 2002) and this can be achieved through cultivating and maintaining export market-oriented behaviour throughout the organisation. Furthermore, studies in the USA, Finland and New Zealand show that of a set of hypothesised antecedents, export coordination emerged as one of the most important predictors of export market-oriented (Cadogan, Diamantopoulos and Siguaw 2002, Cadogan et al. 2001) suggesting that the stronger the export coordination the greater the level of firms' export intelligence generation, dissemination and responsiveness.

2.4.3   Organisational Systems

Research has established that the way information is used is likely to be a function of the presence of organisational structures, systems and processes (Daft and Weick 1984). Jaworski and Kohli (1993) suggest that three structural characteristics have a direct impact on organisational variables (formalisation, centralisation and

departmentalisation), and that two system variables (reward systems and training systems) will have a direct impact on an organisation's level of market orientation.

Formalisation

Formalisation has been defined by Kohli and Jaworski (1990, p. 10), as "the degree to which rules define roles, authority relations, communications, norms, and sanctions and procedures". The role and impact of organisational structure on information processing activities have been supported in the literature (see Barclay 1991; Cadogan et al. 2001; Kohli and Jaworski 1990; Menon and Varadarajan 1992). It is argued that formalize structures, systems or procedures, although they may possibly facilitate instrumental utilisation processes, reduce information acquisition, information dissemination and conceptual utilisation (Menon and Varadarajan 1992; Moorman 1995). The bureaucracy often linked to the formalisation structure may create a climate of tension and lack of cohesion (Menon, Jaworski and Kohli 1997), decrease communication (Pelham and Wilson 1996) and increase conflict (Barclay 1991). However, Jaworski and Kohli's (1993) and Matsuno, Mentzer and Ozsomer's (2002) empirical work did not find significant association between a firm's level of formalisation and its market-oriented behaviour. On the other hand, Pelham and Wilson (1996) argued and found significant evidence that for smaller organisations, high levels of formalisation will have positive effect on the market-oriented behaviour. They argue that, with greater formalisation, managers can exert greater control in their companies and therefore will positively influence the market orientation behaviour.

Several researchers have also suggested that the environment may influence the relationship between formalisation and market orientation (e.g., Cadogan et al. 2001; Deshpande and Kohli 1989). Specifically, it has been argued that in a stable environment, "standardisation and routinisation" (Ruekert, Walker and Roering 1985, p. 18) of market-oriented activities lead to superior performance. However, in turbulent and dynamic environments, less formalised structures will facilitate the dissemination and processing of information (Deshpande and Kohli 1989) and thus will be negatively related to formalisation and aspects of information processing (Cadogan et al. 2001; Deshpande, and Zaltman 1982; Jaworski and Kohli 1993; Belich and Dubinsky 1995). Furthermore, in a turbulent environment, the efficiency and

effectiveness of the market-oriented activities are more likely to reduce, and require market-oriented firms to become more adoptive, and adopt less formalized structures to cope with the complex demands and constraints that are posed by the environment (Cadogan et al. 2001; Dwyer and Welsh 1985). Indeed, if managers place too strong emphasis on formalisation, organisational inertia and resistence to change may set in (Kelly and Ambergy 1991). This in turn may reduce an organisation's ability to be responsive to market conditions, and will thus reduce firms' ability to generate, disseminate and respond to market information (Kohli and Jaworski 1990).

Cadogan et al. (2001) also found evidence that export environment moderates the association between formalisation and firms' export market-oriented behaviour. Their study in New Zealand and Finland found that the market dynamism interaction with formalisation returned a significant but negative path coefficient. A more detailed analysis indicated that under conditions of low and medium market dynamism, formalisation was positively linked with export market-oriented activities, however, the relationships turned to negative when markets are less predictable. Interestingly, the finding for the interaction between formalisation and regulatory turbulence was only significant for the Finish sample. Furthermore, the results also showed that under condition of low regulatory turbulence, the relationship between formalisation and export market-oriented behaviour was negative and returned to positive when the regulatory environment become more turbulent.

Centralisation

Centralisation represents a situation in which all power for decision making rests at a single point within an organisation. Kohli and Jaworski (1990) defined the term as the delegation of decision making authority throughout an organisation and the extent of participation by organisational members in decision making (Aiken and Hage 1968; Kohli and Jaworski 1990). Empirical research has shown that the ability to generate market intelligence and subsequently to transmit and utilise it is negatively related to the degree of centralisation (Avlonitis and Gounaris 1999).

Research has also suggested that centralisation lowers autonomy and participatory decision-making by employees which in turn facilitates friction and feelings of

alienation in employees, impedes trust, decreases the amount of idea exchange and inhibits communication (e.g., Barclay, 1991; Menon and Varadarajan 1992; Shoham and Albaum 1994; Olsen, Walker and Ruekert 1995), decreases communication (Pelham and Wilson 1996) and increases conflicts (Barclay 1991). For example, the work of Desphande (1982) and Deshpande and Zaltman (1982) have shown that the greater the degree of centralisation in the structures, systems or processes, the lower a company's ability to utilise information from the market. Furthermore, strong communication between employees at the customer interface and the head office managers is required to enable organisation to orientate towards customers and competitors (Harris and Piercy 1999).

Despite a strong theoretical support in the literature that the loss of management autonomy through centralised decision making structures will be negatively related to aspects of market-oriented activities, Jaworski and Kohli's (1993) study, however, report only partial support for this proposition, while replication works in Saudi Arabia (Bhuian 1998) and Australia (Pulendran, Speed, and Widing 2000) find support for the argument that centralisation is negatively related to market-oriented behaviour. Furthermore, Cadogan et al. (2001), find evidence that a certain degree of centralisation is necessary for effective market-oriented behaviour. Specifically, they suggest that high levels of centralisation can increase the efficiency of firms' market-oriented activities specific for their export markets since resources can be combined to provide synergies among a firm's various functions (Belich and Dubinsky 1995). However, under highly turbulent market, the types of information required for faster response actions may require firms to be supported by structures that enable rapid responses and thus a decentralisation structure is argued to withstand the pressure better.

It is further argued that, in highly turbulent export markets, a more decentralised structure may facilitate export market-oriented behaviour because it may encourage export market intelligence generation and dissemination, increase the speed of market response, place decision making authority in the hands of managers closer to the situations, and allow for more discretionary and adaptive behaviour on the part of those doing the work (c.f. Belich and Dubinsky 1995; Cadogan et al. 2001; Pelham

and Wison 1996). The empirical evidence also provides support for this notion with centralisation returning a positive relationship with export market-oriented behaviour under conditions of very low regulatory environmental turbulence, and returning a negative relationship with export market-oriented behaviour under conditions of high environmental turbulence in the Finnish and New Zealand samples (Cadogan et al. 2001). However, the finding also shows that for the Finnish data, centralisation returned a significant negative main effect on export market-oriented behaviour, suggesting strong support for the cultural factor playing an important role in the relationship of export structures on export market-oriented behaviour.

Departmentalisation

Departmentalisation refers to elements of both physical (e.g., Jaworski and Kohli 1993) and psychological (e.g., Fisher, Maltz and Jaworski 1997) segregation within a firm. The market orientation literature suggests that departmentalisation may create differences among groups and build 'territorial viewpoints' (Menon, Jaworski and Kohli 1997). This may force employees to have a focus on functional problems such as issues and solutions rather than looking at the matters at the overall organisational level. Furthermore as argued by Fisher, Maltz and Jaworski (1997) organisational members tend to lack a superordinate focus when they are physically and psychological segregated. A firm's employees who strongly identify with a specific department or function within the firm, will face communication difficulties between that function and the rest of the firm. It has also been found that strong divisions between employees through various departments (e.g., marketing, manufacturing, finance) may lead to situations of distrust between organisational members and political use of information (Diamantopoulos and Cadogan 1996). Jaworski and Kohli (1993) in their empirical study found lack of support between departmentalisation and market-oriented behaviour, however, Matsuno, Mentzer and Ozsomer (2002) uncover a significant and negative relationship between firms' market orientation and departmentalisation.

Reward Systems

The organisational control literature has shown that reward systems are instrumental in influencing employees' behaviour (e.g., Jaworski 1988; Ruekert 1992) which in turn

will also influence the behaviour of employees towards developing market-oriented behaviour. Anderson and Chambers (1985, p. 8) state, "organisational members are induced to contribute toward attainment of organisational objectives because they receive rewards for doing so". Rewards should be interpreted broadly so as to include appreciation, recognition and approval given to employees in a firm. Giving public recognition of individual employees who behave in such a way as to provide a high degree of customer value would improve a firm's overall level of market-oriented behaviour (Kohli and Jaworski, 1990).

Specifically, the literature suggests that market based reward systems may be used to direct individuals towards developing market-oriented behaviour with strong emphasis on long term profit and customer orientation (Bhuin 1998; Cadogan et al. 2001; Jaworski and Kohli 1993; Ruekert 1992). Reward and recognition systems must be directed towards market driven indicators, otherwise inappropriate behaviour from the employee is likely to be reinforced (Mohr-Jackson 1992).

Firms which implement market-based reward systems that encourage a market-driven customer focus, achieve a higher degree of market intelligence generation, dissemination and market response activities (Ruekert 1992; Siguaw, Brown and Widing 1994). In fact, Webster (1988) suggests that the development of market-based measures of performance is the basic requirement for developing a market-oriented organisation. In comparison, the assessment of employee performance through sales volume and other short term aspect of performance leads them to put greater efforts to achieve these objectives rather than achieving customer satisfaction and higher service levels.

The Jaworski and Kohli (1993) and Pulendren, Speed and Widing (2000) studies find that market-oriented reward systems significantly affect the level of an organisation's market-oriented behaviour. Thus organisations that reward employees to suit their performance on the basis of customer satisfaction, and building customer relationships tend to be more market-oriented. Furthermore, individuals who are rewarded based on export market-based criteria, such as on export customer satisfaction feedback and export customer retention rates, are more likely to lead to higher degree of export

market-oriented behaviour (Cadogan et al. 2001). Therefore, market-based reward systems can be used to direct individuals towards developing domestic and export market-oriented activities and behaviour.

Selection

Individuals' values, beliefs and past experiences will affect their perceptions, which in turn may affect their behaviour (Hopwood 1974). It has been suggested that recruitment of staff who already have those skills and values will have a direct impact on the market intelligence generation, dissemination and responsiveness activities (e.g., George and Miller 1996; Ruekert 1992). Ruekert (1992, p. 230) argues that "[we] would expect that the extent to which the organisation recruits and selects individuals who have a commitment to serving customers, or who have skills which can improve the market orientation of the business unit, should be related to the level of market orientation achieved by the business".

Indeed, certain types of individuals may have skills which already equip them to carry out the activities of the firm, whether it is through education or experience (Ball and McCulloch 1992; Reukert 1992). For example, employees who have existing knowledge about the market may facilitate the acquisition of more and better information (Welch and Welch 1996). Similarly, it has been suggested that one of the keys to developing an organisation-wide passion for customer service is through recruiting employees who have already have a strong service orientation (Schuler 1996).

Training Systems

To be a highly market-oriented organisation, a firm needs to equip employees with necessary skills, methods and abilities to continuously innovate in order to meet customers needs and wants (Cadogan et al. 2001; Reukert 1992). This is based on the premise that "training sets the stage, direction, and foundation of a market orientation and facilitates the clarity of focus and vision" (Mohr-Jackson 1991, p. 462). In addition Ruekert (1992, p. 230) argues: "individuals who have skills which can

improve the market orientation of the business unit, should be related to the level of market orientation achieved by the business". Collectively, as the employees' knowledge and skills about customers and competitors increases, their value and role to the organisation will also increase (c.f. Moorman and Rust 1999). Apart from understanding export customers and competitors, cross-functional training and job rotation can increase employees' understanding of other functional departments' needs and perspectives. This may be particularly useful in the case of the exporting department and can facilitate communication and decrease dysfunctional conflict between departments (c.f., Brown and Duguid, 1994).

In the exporting context, Czinkota , Ronkainen and Moffett (1998) suggest that employees' sensitivity to export customers' needs can be achieved through formal and informal training programmes. Such programme can provide employees with skills necessary to understand foreign customers' culture, political and economic differences and at the same time employees can gain new skills to acquire and utilise more and better export intelligence (Burton and Schlegelmich 1987; Cadogan et al. 2001; c.f. Hooley and Newcomb 1983).

2.4.4   Environmental Turbulence

Some aspects of the external environments in which a firm operates have been found to influence market orientation (Avlonitis and Gounaris 1999; Pelham and Wilson 1996; Slater and Narver 1994; Van Egeren and O'Connor 1998). The external environment has been conceptualised according to its intensity, dynamism and complexity (Davis, Morris and Allen 1991). Intensity refers to the intensity of competition in an organisation's environment (Pelham and Wilson 1996), dynamism refers to the degree of change and uncertainty in the organisation's environment (Glazer and Weiss 1993) and complexity refers to the heterogeneity of external events that are relevant to the organisation (Daft, Sormunen and Parks 1988).

In the context of market orientation literature, a common approach to the external environment is related to the origin of environmental pressure such as customer, competitor and technological pressures (Kohli and Jaworski 1993). The customer

environment includes all individuals or organisations who purchase an organisation's products. The competitor environment includes the organisations and products that compete with the firm, and the competitive tactics used by the firm and its competitors. The technological environment includes the development of new production methods or materials which lead to cost advantage or innovative products (Daft, Sormunen and Parks 1988).

The market orientation literature is fairy unanimous in its consideration of the firm environment, with several studies suggesting that the latter may influence the firm's market-oriented activities (Matsuno, Mentzer, Rentz 2005). For example, Lusch and Laczniak (1987) found support for the proposition that increased competitive intensity is associated with more emphasis on the marketing concept. The significant issue here is that the degree of firms' market-oriented activities is likely to be a function of perceived information need (Belich and Dubinsky 1995; Glazer 1991; Huber and Daft 1987). Thus, increased environmental turbulence will increase uncertainty in decision making (Daft, Sormunen and Parks 1988), perceived information need (Sinkula 1994), thus influence a firm's market information need (Diamantopoulos and Cadogan 1996). Indeed, Avlonitis and Gounaris (1999) found support that increase in competitive intensity, market growth rate and technological change have significant positive effects on the levels of firms' market orientation. Furthermore, they also argue that the rate of change in customer demand, barriers to entry as well as the ones to exit the market will increase the need for an organisation to track and respond of the customers. On the other hand, Van Egeren and O'Connor (1998) found evidence that higher market growth rate (or munificence), leads to lower firms' market orientation. Similarly, in the environment that exhibits high market turbulence, organisations must monitor and respond to customers' changing needs and preferences by increasing market-oriented activities in order to remain competitive (Achrol and Stern 1988; Cadogan, Cui and Li 2003; Van Egeren and O'Connor 1998).

2.4.5 Market-Oriented Organisational Culture

The role and impact of the organisational culture on information processing issues has received much attention in the literature (see Deshpande and Webster 1988, Harris 1998b; Homburg and Pflesser 2000; Narver and Slater 1990). The literature indicates that organisational culture elements will influence a firm's ability to generate, disseminate and respond to market intelligent (Homburg and Pflesser 2000, Narver and Slater 1998). For example, Matsuno, Mentzer and Rentz (2005) suggest that organisational culture could be an important antecedent to firms' market-oriented behaviour. More specifically, Homburg and Pflesser (2000) suggest that three interrelated components of market-oriented culture such as shared basic values, behavioural norms, and artefacts are likely to influence market-oriented behaviour.

Shared basic values refer to the "conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, mean and ends of action" (Kluckholn 1951, p. 395). Furthermore, shared basic values such as sharing values of open internal communication, the value of employee responsibility and value for interfunctional cooperation are more likely to support firms' ability to process market information (Homburg and Pflesser 2000). Market-oriented values effectively shared by individual employees leads to norms for market orientation and market- oriented behaviour. Norms refer to the "expectation about behaviour or its results that are at least partially shared by a social group" (Homburg and Pflesser 2000, p. 450). Artefacts include stories, arrangements, rituals, and language that are created by an organisation and have a strong symbolic meaning (Schein 1992). The symbolic meaning of artefacts is more important than any instrumental function (Hatch 1993). Homburg and Pflesser (2000) define stories as exceptional behaviour of senior manager and might include employees performing ideal customer-oriented behaviour. Arrangements include open and friendly customer entrance and welcome areas, and rituals might consist of events for customer focus discussion style during meetings. However, Harris (1998b) argues that artefacts present the most tangible creation of culture hence explaining the direct effect it has on the organisational market-oriented behaviour.

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From the market-oriented culture perspective, values, beliefs and artefacts will guide selection and evaluation of firms' market-oriented behaviour. Homburg and Pflesser's study, found evidence that firms' market-oriented artefacts are directly associated with market-oriented behaviour, while shared values and norms have only indirect impacts on market-oriented behaviour. The findings suggest that organisations that have strong norms for market orientation will only exhibit market-oriented behaviour with the presence of market orientation artefacts.

2.4.6 Business Strategy

Several researchers have suggested that the amount of information collected will depend on firms' business strategy (e.g., Kumar, Subramaniam and Strandholm 2002; Lukas 1999; Matsuno and Mentzer 2000). Specifically, it has been argued that certain strategies pursued by firms will influence the way they generate, disseminate and respond to market intelligence. Narver and Slater (1990) observe that a significant correlation between market orientation and growth or differentiation strategy. In a firm that pursues such a strategy, there should be tendency to emphasise customers' needs and wants.

Firms that pursue a defence and maintenance strategy type, in contrast, should have a low market-orientation (Pelham and Wilson 1999). Past research that support this contention includes Homburg, Workman and Krohmer (1999) and Kumar, Subramaniam and Strandholm 2002). However, an empirical study by Pelham and Wilson (1996) among US firms shows that business strategy such as innovation, niche, differentiation and also low cost strategy do not significantly affect firms' market-oriented behaviour.

2.4.7 Other Factors

Export Experience

Export experience has been found to be associated with the level of awareness of export information sources (e.g., Souchon and Diamantopoulos 1996). It has also been noted in the literature that as firms become more experienced in their export markets, they tend to generate more specific export knowledge (Sood and Adams 1984). With increasing experience, managers are more likely to have accumulated an experiential knowledge base into which they can tap, rather than use established sources of information (McAuley 1993).

Experience in turn, leads to knowledge and may also have an impact on an exporting firm's intelligence dissemination and responsiveness activities. The accumulation of export market knowledge could help organisational members to identify and filter relevant and important information so that it can be passed along the communication channel. Thus, in order to respond efficiently to customers and competitors, market-oriented organisations must effectively acquire, disseminate and then, through a transformation process, give meaning to the information (Souchon and Diamantopoulos 1996). Additionally, experience is also more likely to trigger intuitive decision making based on profound knowledge of the export market (Souchon and Diamantopoulos 1996). These factors combined, will help increase a firm's degree of market orientation in its export markets. Empirical research shows that firms' experience as measured by number of countries exported to returns a positive and significant coefficient, however, the relationship is negatively related when experience is measured by the number of years firms have been exporting (Cadogan, Diamantopoulos and Siguaw 2002; see also Cadogan et al. 2001).

Export Dependence

Past studies relating to the impact of export dependence on market orientation provide evidence of the significant positive link between a firm's higher reliance on export markets and its level of export market-oriented behaviour (Cadogan, Diamantopoulos and Siguaw 2002; Souchon and Diamantopoulos 1996). Firms that have a greater degree of export market dependence will place greater important on the export market-

oriented activities as export decisions are critical for company survival. Managers are more likely to collect large amount of market intelligence in the export markets, disseminate it between functions and units and take response actions. As the export market becomes more important to the organisation's overall success, the perceived importance of export market-oriented behaviour will also be higher (Belich and Dubinsky 1995; Cadogan, Diamantopoulos and Siguaw 2002; Souchon and Diamantopoulos 1996).

2.4.8   Summary of Antecedent to Market Orientation Research

A summary of selected studies on antecedents to market orientation is presented in Table 2.1. As stated earlier, the identified variables are important due to their strong influence on the organisation's market-oriented behaviour. These sets of antecedents however, are context specific in that they influence a firm's export and non-export (or domestic) market-oriented behaviour differently (Cadogan 2003; Cadogan et al. 2001).

As the review show, market-oriented behaviour has been conceptualized at different levels within the firm (export and non-export or domestic function levels). From these conceptualisations, there is no indication that the market-oriented behaviour levels of the export function and the domestic function will be exactly the same. Indeed, it is entirely plausible that antecedent factors such as environmental turbulence, may well differ across functional levels or markets. However, this is pure conjecture, since there is no research into the factors which may bring about differences in market-oriented behaviour levels across firms' export or domestic functions.

The next section provides a review of the effect of market orientation on organisational performance. This is followed by an analysis of the role of environment in moderating the market orientation-performance relationship.

Table 2.1: Comparing Results of Antecedents to Market-Oriented Behaviour*

Independent Variables	Van Egeren & O'Connor (1998)	Reukert (1992)	Pulendren, Speed & Widing (2000)	Pelham & Wilson (1996)	Matsuno, Mentzer & Ozsomer (2002)	Jaworski & Kohli (1993)	Homburg & Pflesser (2000)	Harris (2000)	Cadogan Diamatopoulos and Siguaw (2002)	Cadogan et al. (2001)**	Bhuian (1998)	Avlonitis & Gounaris (1999)
Top Management Emphasis			Sig (+)			Sig (+)				Sig (+)	Sig (+)	
Risk Aversion			n.s			n.s						Sig (-)
Commitment										Sig (+)		
Conflict			Sig (-)			Sig (-)					Sig (-)	
Connectedness			Partial support[a]			Sig (+)		Sig (+)	Sig (+)	Sig (+)	Sig (+)	
Coordination				n.s[b]								
Formalisation			n.s	Sig (+)	n.s	n.s		Sig (-)		Sig (-)[c]	Sig (-)	Sig (-)
Centralisation			n.s	n.s	n.s	Sig (-)[e]		Sig (-)		Sig (-)[d]	Sig (-)	Sig (-)
Departmentalisation					Sig (-)	n.s						
Reward System		Sig (+)	Sig (+)			Sig (+)				Sig (+)[f]	n.s	
Recruitment		Sig (+)								Sig (+)		
Training System		Sig (+)										
Competitive Intensity				n.s								Sig (+)
Buyer's Power												Sig (+)
Market Growth Rate												Sig (+)

Independent Variables	Avlonitis & Gounaris (1999)	Bhuian (1998)	Cadogan et al. (2001)**	Cadogan Diamatopoulos and Siguaw (2002)	Harris (2000)	Homburg & Pflesser (2000)	Jaworski & Kohli (1993)	Matsuno, Mentzer & Ozsomer (2002)	Pelham & Wilson (1996)	Pulendren, Speed & Widing (2000)	Reukert (1992)	Van Egeren & O'Connor (1998)
Market Turbulence									n.s			Sig (-)[g]
Technological Change	Sig (+)											Sig (+)
Artifacts						Sig (+)						
Norms						n.s						
Innovation/Niche/Differentiation									n.s			
Low Cost Strategy									n.s			
Service-Focussed Strategy					Sig (+)							
Cost-Focussed Strategy					Sig (+)							
Export Experience			Sig (+)	Sig (+/-)[h]								
Export Dependence				Sig (+)								

* Empty cells indicate that the independent variable is not included in the study

** Studying export specific context

[a] the relationship is only significant upon removing formalisation and centralisation from the regression analysis.

[b] Significant and positive correlations between formalisation and export market orientation.

[c] No direct relationship between formalisation and export market orientation. The relationship is moderated by regulatory environment in Finnish sample.

[d] Direct relationship is observed in Finnish sample. Regulatory environment moderates the relationship in both samples.

[e] Non significant finding in Sample 2

[f] Relationship is only significant in New Zealand sample.

[g] Munificence was used in the study

[h] The relationship is negative when experience is measured using number of years, and positive when experience is measured using number of countries.

2.5 THE EFFECT OF MARKET ORIENTATION ON PERFORMANCE

In this section, the literature review focuses on the empirical findings of studies of the relationship between market orientation and performance. The first main area is the direct relationship between market orientation and organisational performance; this is followed by a review of research into environmental turbulence as a moderator of the market orientation - performance relationships. As briefly mentioned in the introductory chapter, the exact nature of the relationships between market orientation and performance, and also with the environmental moderator have received mixed results, suggesting that our understanding of the performance consequences of market orientation is not fully understood. This indicates that that a deeper understanding of the market orientation - performance relationship is needed. Potentially, one avenue to explore in this respect is the integration of levels issues into the market orientation - performance assessment. Interestingly, in all market orientation studies, researchers tend to focus on one particular level (e.g., the SBU-level), and generate data concerning market orientation, environmental turbulence and performance for that particular level.

However, researchers have not looked *across* different levels such as across different SBUs or departments. There has been no *integration* of levels of analysis. The way that market orientation determines performance at different levels, and the way that these different types of performance interact to determine overall performance, have not been examined in previous studies. Consequently, the subsequent section introduces levels issues in market orientation – performance studies and identifies a potentially interesting and useful way

forward for further research efforts in this area. (Levels issues are examined in greater depth in Section 2.6 also).

2.5.1 Market Orientation and Performance

During the last decade, scholars have recognised the importance of market orientation to organisations, but have differed in their approach to it and its conceptualisation. Two of the most influential studies of market orientation are the contributions of Kohli and Jaworski (1990) and Narver and Slater (1990). Both groups argue that a market orientation is important for business success because it emphasises identifying customer needs and wants and offering products which are different from or better than those offered by competitors. In many respects these papers have provided a strong theoretical foundation for other scholars to build on and foster further research. Despite their differences in the conceptualisation of market orientation constructs, Cadogan and Diamantopoulos (1995) conclude that the two models are considered complementary, sharing a similar nomological network, and are not mutually exclusive.

Given that market-oriented behaviour is generally accepted as a superior organisational strategy, there is a clear theoretical rationale for firms to implement the concept, because it is a reflection of the customer and market driven foundations of the marketing premise. As Dickinson et al. (1986, p. 18) note: the "foundation stone [of the marketing concept] is customer satisfaction, the belief that business, if it is to be successful, should be oriented towards satisfying the needs of its customers… The concept makes good sense. If the buyer is rational, it follows, seemingly as a truism, that he or she will choose and come to prefer those firms whose market offerings best meets wants". Consequently, firms that are market-oriented in their activities will offer superior products and services to customers as a result of constant monitoring and response to emerging needs and developments in the business environment.

In general, it appears that market orientation has been found to emerge as a significant antecedent to superior business performance and is presumed to contribute to long term success (Cano, Carrillat and Jaramillo 2004). While most research at the early stage of

theory development have been conducted in the United States and Europe (e.g., Cadogan, Diamantopoulos and Siguaw 2002; Greenley 1995b; Hart and Diamantopoulos 1993, Hooley, Lynch and Shepherd 1990; Jaworski and Kohli 1993; Narver and Slater 1990), studies of market orientation in different countries or cultures, including in Eastern Europe (Hooley et al. 2000), Scandinivia (Cadogan et al. 2002; Selnes, Jaworski and Kohli 1996), Asia, Australia and Pacific (Deshpande, Farley and Webster 1993; Grewal and Tansuhaj 2001; Pulendren, Speed and Widing 2000; Gray et al. 1999; Soehadi, Hart and Tagg 2001), Middle East (Bhuian 1998), Africa (Apiah-Adu 1998) also appear to share that market orientation has a strong positive relationship with organisational success.

Similarly, studies by Cervera, Mollá and Sánchez (2001), Kennedy, Goolsby and Arnould (2003), and Wood, Bhuian and Kiecker (2000) among non-business organisations show that being market-oriented leads to better performance. Empirical research on market orientation in the services (Han, Kim and Srivastava 1998; Siguaw, Brown and Widing 1994) and manufacturing industry (Homburg and Pflesser 2000; Lukas and Ferrell 2000) also have found positive effect of being more market-oriented in their behaviour on various organisational indicators. At the firms' functional level, Cadogan, Diamantopoulos, and Siguaw (2002), Cadogan et al. (2002) and Rose and Shoham (2002) also find support for export market-oriented firms as a route to achieving superior export performance.

Despite compelling evidence to suggest that market orientation is positively linked to superior organisational performance, Grewal and Tansuhaj (2001) found just the opposite: market orientation has an adverse effect on organisational performance. Additionally, they demonstrate that the influence of market orientation on a firm's performance after a crisis has occurred is contingent upon three environmental variables; demand uncertainty, technological uncertainty, and competitive intensity. The conclusion from this study is that market orientation is useful for managing crisis only in conditions of high demand uncertainty or high technological uncertainty. When the competitive intensity is extremely high, market orientation brings about negative effect to performance. Grewal and Tansuhaj (2001) further argue that firms that place higher market orientation level by closely monitoring their competitors would not perform better as the pre crisis assumption of competitors behaviour are no longer valid after the crisis.

Other scholars who do not find direct and significant associations between market orientation and performance include Baker and Sinkula (1999b), Caruana, Pitt and Berthon (1999), and Greenley (1995a). One of the early empirical studies on market orientation in the UK by Diamantopoulos and Hart (1993) also provides evidence on the association between market orientation and performance. However, their results indicate that three moderator variables, market turbulence, competitive environment and demand conditions, play a significant role in influencing market orientation- performance link. Here, the degree of market orientation itself has no "main" influence on the organisational performance; the relationship is solely subjected to the environmental contingency.

In the next section the role of environmental turbulence in moderating the market orientation and organisational performance is presented. In particular three environmental variables -- market turbulence, competitive intensity and technological uncertainty will be focussed on and their effect on market orientation relationship with performance examined.

2.5.2   Market Orientation, Environmental Moderator and Performance

The influence of environmental factors on the effectiveness of organisational variables has had a long tradition of support in the literature. McKee, Varadarajan and Pride (1989) suggest that the success of a firm's strategic orientation will be contingent on the market dynamism; environmental interactions with a firm's strategic moves may influence its performance (Lusch and Laczniak 1987). Thus, environmental turbulence is perceived to be an important factor in planning and strategy implementation (Slater and Narver 1994).

Jaworski and Kohli (1993) propose three environmental turbulence dimensions, market, competitive and technology, which are predicted to have certain degree of influence on the market orientation – performance relationship[1]. They are market turbulence, competitive intensity and technological uncertainty.

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[1] In their extensive qualitative interviews, Kohli and Jaworski (1990) propose four environmental turbulence variables, which are market, competition, technology and general economy turbulence. The general economy turbulence was subsequently dropped in their quantitive work.

2.5.2.1 Market Turbulence

Market turbulence is the rate of change in customers' preferences and competitors' actions (Achrol and Stern 1988; Huber and Daft 1987). In the age of the borderless world and the formation of economic unions and trade blocks, buyers have a huge amount of choice. This increases the requirements for organisations to keep close track of changing buyers preferences. In markets with relatively low levels of dynamism, a moderate degree of market orientation is sufficient to serve the stable preferences of customers (Kohli and jaworski 1990) hence less of a need to closely monitor buyers' preferences. When the market is relatively stable, "a market orientation is likely to have little effect on performance because little adjustment to a marketing mix is necessary to cater effectively to stable preferences of a given set of customers" (Kohli and Jaworski 1990, p. 14). However, in a highly turbulent market, organisations must match their offerings with customers needs; thus, engaging in more market-oriented activities will help them achieve superior performance.

2.5.2.2 Competitive Intensity

Competitive intensity is the degree of competition that a firm faces (Grewal and Tansuhaj 2001). Competitive forces play a critical role in strategy formulation in organisations. The orientation of competition determines goal selection (Kralewski et al. 1988). Also, as the competitive intensity increases, organisations are forced to initiate adaptive responses, otherwise it may lead to failure of the organisations. As the environment moves from a "placid, cloistered state … to a more competitive, turbulent state" (Autry and Thomas, 1986, p.7), there may be a more compelling necessity to keep better track of what competitors are doing. In highly competitive environments, greater emphasis on market orientation is required for better performance (Kohli and Jaworski 1990). In a more stable environment, on the other hand, there may not be a great necessity for such a posture due to a dearth of competitors' actions (Subramaniam and Gopalakrishnan 2001). Thus, competitive intensity is argued to moderate the market orientation – performance relationship.

2.5.2.3 Technological Uncertainty

Kohli and Jaworski (1990) define technology as the entire process of transforming inputs to outputs and the delivery of those outputs to those customers, while technological turbulence is "the rate of technological change" (Jaworski and Kohli, 1993, p. 57). The pace and the degree of innovations and changes in technology induce technological uncertainty (Grewal and Tansuhaj 2001). In industries characterized by rapidly changing technology, a market orientation may not be as important as it is in technologically stable industries. The positive relationship between performance and market orientation should weaken as technological uncertainty increases (Jaworski and Kohli 1993). Furthermore, in industries where technology is changing rapidly, firms' emphasis on technological orientation as a means of competing would reduce the importance of market orientation (Kohli and Jaworski 1990). Thus, it is argued that technological uncertainty moderates the positive effect of market orientation on performance.

2.5.3 Environmental Turbulence – Empirical Findings

The conceptual arguments and empirical evidence in areas of strategic management and marketing literatures point to the likelihood that aspects of a firm's business environments might moderate the market orientation-performance relationship (Day and Nedugadi 1994). From this perspective, it can be argued that there are situations in which being market-oriented may be detrimental to the firm's success. However, the much-cited empirical work of Jaworski and Kohli (1993), Narver and Slater (1990) and Slater and Narver (1994) found no evidence to support this notion. In fact, Narver and Slater (1990, p. 32) state that market orientation is "an important determinant of a business profitability", and "[a] substantial market orientation must be the foundation for a business's competitive advantage strategy" (p. 34), while Jaworski and Kohli (1993, p. 64) unreservedly has suggested that it is "an important determinant of [a firm's] performance, regardless of the market turbulence, competitive intensity, or technological turbulence of the environment in which it operates". In a later study, Slater and Narver (1994, p. 53) reiterate that market-oriented firms are, "best positioned for success under *any* environmental conditions" and

"market orientation is as important, if not more important, during low market turbulence as it is during high market turbulence".

These conclusions have been very influential in subsequent interpretations of the importance of market orientation as a driver of organisational performance. As a result, the message was strongly promoted that market orientation behaviour positively influences business performance, regardless of environmental conditions. Consequently, all firms should strive to maximize their market-oriented behaviour (see Slater and Narver 1994). However, it is important to note that the Slater and Narver (1994) study has in fact found limited support for competitive environment moderator, but they argue that the benefits derived from market orientation are generally long term whilst the environment is only a transient factor. Other studies, which found no support of moderator effects on the market orientation – performance relationship include Bhuian (1998), and Cadogan, Diamantopoulos and Siguaw (2002).

Some uncertainty still remains concerning the universal benefits of a market orientation. Despite lack of support for the environment moderating influence (Bhuian 1998; Cadogan, Diamantopoulos and Siguaw 2002; Jaworski and Kohli 1993; and Slater and Narver 1994), doubts still linger concerning the universal positive influence of market orientation on organisational performance. For example, recent evidence shows that a growing number of studies have established that the market orientation–performance relationship does change in strength and direction (i.e. negative and positive) under differing levels of environmental turbulence. The literature demonstrates that the environment's impact on the relationship between market orientation and performance is not consistent across studies. For example, several empirical studies show that market orientation's influence on performance is not always positive under all environmental conditions (eg., Appiah-Adu 1998, 1998; Atuahene-Gima 1995; Diamantapoulos and Hart 1993; Gray et al. 1999; Greenley 1995a; Grewal and Tansuhaj 2001; Homburg and Pflesser 2000; Kumar, Subramaniam and Yauger 1998).

Some studies have provided evidence to suggest that under certain environmental conditions market orientation may not be as beneficial for performance (see Atuahene-

Gima 1995; Diamantapoulos and Hart 1993; Gray et al, 1999). For example, Greenley's (1995a) results demonstrate that as the technological environment in which a firm operates increases in complexity and dynamism, the relationship between market orientation and new product performance decreases in strength and eventually becomes negative when the technological turbulence is considerably high. On the other hand, Athuahene-Gima (1995a) finds just the opposite. Here he argues that market orientation relationship with new product successes is more positive under conditions of high technological turbulence. Kumar, Subramaniam and Yauger (1998), also find that environmental turbulence moderates the market orientation performance relationship. Specifically, their results show that competitive hostility and market turbulence have a positive effect on various performance measures, while suppliers' power has a negative effect on performance. The latter suggests that market orientation has a strong relationship to performance when supplier power is low. Interestingly, none of the three variables moderate the market orientation-performance relationship in terms of growth in revenue. In other words, the findings of Kumar, Subramaniam and Yauger (1998) show that high market orientation leads to revenue growth regardless of the business environment and this is consistent with results reported by Narver and Slater (1994) and Jaworski and Kohli (1990).

The effective use of market intelligence is essential in gaining competitive advantage, in the sense that it helps the firm to better understand its markets, thus heighten its customer value. However, under relatively high levels of competitive intensity, the dissemination of vast quantities of information is likely to be overwhelming and this can create blockages and overloads in various parts of the dissemination infrastructure (Cadogan and Diamantopoulos 1995). Furthermore, mere possession of market and competitive information through extensive generation and dissemination activities does not ensure effective and efficient management actions (c.f. Diamantopoulos and Souchon 1999). For example, if a firm does manage to generate and disseminate information on all environmental fluctuation occurring, responding to all these changes may strain the firm's resources. When firms are operating under conditions of extreme volatility and complexity, monitoring every change that occurs will be very costly in terms of organisational resources (Steinman, Deshpande and Farley 2000)

Moreover, in a turbulent market environment when customer preferences are changing rapidly, the cost associated with modifying products to suit every customer may not be an optimal choice as the benefits gained from such responses may be far below the cost associated with the change. Similarly, in a rapidly changing technological environment, investment in new production facilities and product modifications may be very costly as the new installations or processes could become obsolete before a firm can recoup its investment. Subsequently, firms could engage more on market driving activities such as reducing production costs, efficient distribution systems, and new product design (Cadogan, Cui and Li 2003; Jaworski, Kohli and Sahay 2000).

Market-oriented behaviour is even more critical for a firm operating in export markets due to the higher risks resulting from the great diversity of foreign business environments, the multiplicity of the parameters involved in selling abroad, the existence of new variables not found in the domestic market, and the high intensity of international competition (Cadogan and Diamantopoulos 1995; Czinkota, Ronkainen and Moffett 1998; Katsikeas, Leonidou and Morgan 2000; Leonidas and Theodosiou 2004). Differences in the international environment should provide more variation than in a single domestic market (c.f. Bartels 1968), thus, leading to greater uncertainty or turbulence, and requiring firms to respond to environmental information. Furthermore, the literature has also suggested that the association between export market-oriented behaviour and performance will be moderated by the environmental turbulence (Rose and Shoham 2002). Market dynamism, competitive turbulence and technological turbulence increase the need for firms to monitor and respond accordingly. Under conditions of high turbulence, there is greater likelihood that a firm's offerings will be mismatched with customers' needs and the offerings of competitors and this will undermine the effectiveness of the firm's activities. Thus in more turbulent export environment, exporters will use information to a greater extent as a means of increasing their understanding of changing export conditions (Souchon and Diamantopoulos 1996). As a result, market-oriented organisations operating in such environments are expected to track changes in regulations, technology, customers' preferences and competitors' activities, and adjust their own activities and offerings appropriately.

Given that the environmental moderator findings are inconsistent across studies in domestic and also in the export markets, questions arise whether the same moderating pattern also applies to the firm's exporting operations. The results from a study by Cadogan, Cui and Li (2003) shows that under conditions of low competitive intensity, export market-oriented behaviour is negatively related to export sales performance, but the relationship becomes positive under high intensity competitive environment. This indicates that export market-oriented behaviour only become necessary under very strong intense competitive pressures. Thus, under highly competitive business environment and through high level of export market-oriented, firms are able to respond to changing customers needs and wants, develop competitive strategies, identify new market opportunities, and able to match the firms' marketing capabilities with the conditions facing the firm. The study also finds support for the moderating effect of technological turbulence in the export market-oriented behaviour – performance relationship. Under low technological intensity, lower levels of export market-oriented are positively related to sales efficiency, but have a negative association with export growth. However, the relationship appears to be on the opposite when the technological environment is at the extreme; high levels of export market-oriented behaviour lead to a decline in export sales efficiency, while at the same time increasing export sales growth.

In a study of Finnish exporters, Cadogan et al. (2002) find a significant moderator effect on the export market-oriented behaviour – performance relationship. The impact of export market-oriented behaviour on export efficiency performance is positive under low environmental turbulence but is weaker as export environmental turbulence becomes greater. However, an interesting finding emerges when the export profit performance is used as the indicator. The finding shows that, for service exporters, being market-oriented in their export markets could outweigh the benefits in times of low environmental turbulence, while higher levels of export market-oriented behaviour may improve export profit performance when the environment is of moderate to high complexity. As for the product exporters, the relationships uncovered suggest that, while export market-oriented behaviour has a strong positive impact on export profit performance under conditions of low environmental turbulence, the strength of export market-oriented behaviour's impact on profit performance becomes weaker as turbulence in the export environment becomes

greater. Kwon and Hu (2000) on the other hand suggest that market potential and foreign competitive environment do not moderate the robustness of the market orientation – export performance relationship. However, despite the insignificant findings, they found evidence to suggest that in relatively low market potential environments, market orientation becomes more important to improve a firm's export sales, growth rate and total profits.

Table 2.2 provides a review of the market orientation – performance studies and the moderating effects of environmental variables. As shown in the table, three studies have identified no association between market orientation and performance, while nine studies have found strong support for moderator effects on the market orientation – performance relationship. The inconsistencies in the findings highlight important issues regarding the effects of market orientation on organisational performance. Thus, the analysis in this section has pointed that there is a need to better understand the market orientation – performance relationship.

As can be inferred from the above discussion, researchers in market orientation have adopted different levels of analysis in conceptualising the constructs. The next section examines levels issues in theory development, and the application of various levels in extant market orientation studies in more detail.

Table 2.2: Empirical link of Environmental Moderators in Market Orientation (MO) Studies

Author(s)/Year	MO-Performance (Main Effect)	Environmental Moderator	Findings	Conclusion and Implication
Appiah-Adu (1998)	No direct association	Market growth	n.s	Market growth was not found to be a moderator
		Market dynamism	Sig (+/-)	For medium to high level of market dynamism MO is negatively linked to ROI, and low market dynamism, MO is positively related to ROI
		Competitive intensity	Sig (+/-)	For medium to high level of competitive intensity MO is positively related to sales growth, and low level of competitive intensity, MO is negatively related to sales growth
Atuahene-Gima (1995a)	Positive	Market competition	Sig (+)	MO–performance (project & market) relationship is only significant when market competitive is strong
		Industry hostility	Sig (+)	MO–performance (project & market) relationship is only significant when industry hostility is strong.
Bhuian (1998)	Positive	Market turbulence		Not tested due to low alpha for market turbulence scale.
		Competitive intensity	Sig (+)	MO–performance relationship is only significant when competitive intensity is strong.
		Technological intensity	n.s	MO–performance relationship is significant in low and high technological turbulence.
Cadogan, Diamantopoulos and Siguaw (2002)	Positive	A composite score for market dynamism, competitive turbulence, technology turbulence, and regulatory turbulence	n.s.	EMO[*] is a significant predictor of export performance regardless of environmental conditions.

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[*] EMO stands for export market-oriented behaviour.

Author(s)/Year	MO-Performance (Main Effect)	Environmental Moderator	Findings	Conclusion and Implication
Cadogan et al. (2002)	Positive	Export environment	n.s	No moderating effect was found when *sales* performance was used as measure
			Sig (+/-)	For combined sample: EMO impact on *efficiency* performance is positive under low turbulence but becomes weaker as export environment becomes greater.
			Sig (+/-)	For service exporters: high EMO lead to low export *profit* when environmental turbulence is low, and higher EMO increases export profit in moderate to high environmental turbulence.
			Sig (+/-)	For the product exporters: high EMO has a strong positive impact on *profit* performance under low environmental turbulence, and relationship becomes weaker as turbulence becomes greater.
Cadogan, Cui and Li (2003)	Positive	Competitive intensity	Sig (+/-)	Under conditions of low competitive intensity, EMO behaviour was negatively related to export sales performance, but the relationship is positive under high competitive intensity.
		Technological turbulence	Sig (+/-)	Under conditions of low technological turbulence, EMO is positively related to export sales efficiency, but has a negative association with export growth. The relationships appear to be the opposite when the technological environment is at the extreme, that having high EMO lead to decline in export efficiency, but lead to higher export growth.
Diamantopoulos and Hart (1993)	Weak association	Market turbulence	Sig (+)	Main results show stronger relationship between several responsiveness indicators and performance in the low market turbulence.
		Competitive environment	Sig (+)	Main results show that the greater the competitive environment, the stronger the MO and performance relationship.
		Demand conditions	Sig (+)	Main results show that the weaker the demand conditions, the weaker the MO and performance relationship.

Author(s)/Year	MO-Performance (Main Effect)	Environmental Moderator	Findings	Conclusion and Implication
Gray et al. (1999)	Positive	Market turbulence	n.s	MO is a significant predictor of performance regardless of market turbulence. However, market turbulence is negatively associated with ROI.
		Technological change	n.s	MO is a significant predictor of performance regardless of technological change.
		Competitive intensity	Sig (+/-)	MO and pretax profit is positively associated at low competitive intensity, but higher competitive pressure weakens the relationship.
		Entry barriers	Sig (+/-)	MO and sales growth is positively associated at low entry barriers, but higher entry barriers weaken the relationship.
		Market growth	Sig (+/-)	MO and customer awareness is positively associated at high market growth, but lower market growth weaken the relationship.
		Buyer power	Sig (+/-)	MO and ROI is positively associated at lower buyer power, but extreme buyer power weaken the relationship.
Greenley (1995a)	No direct association	Market turbulence	Sig (+/-)	MO and ROI is positively associated at low market turbulence, but higher market turbulence weaken the relationship.
		Technological turbulence	Sig (+/-)	MO and new product success is positively associated at low technological turbulence but higher turbulence weakens the relationship.
		Market growth	n.s	MO is not a significant predictor of performance regardless of market growth.
Grewal and Tansuhaj (2001)	Negative	Competitive intensity	Sig (-)	High competitive intensity aggravates MO – performance after crisis further.
		Demand uncertainty	Sig (+)	MO is more important in high demand uncertainty after economic crisis.
		Technological uncertainty	Sig (+)	MO becomes more important in high technological after economic crisis uncertainty (weak support).

Author(s)/Year	MO-Performance (Main Effect)	Environmental Moderator	Findings	Conclusion and Implication
Harris (2001)	No direct association	Competitive hostility	Sig (+/-)	MO is positively associated with sales growth (subjective measure) in medium and high competitive intensity; for weak hostility, MO is negatively related to sales growth MO is positively linked to sales growth (objectives measures) under high levels of competitive hostility and negatively associated for low and medium levels of competitive hostility.
		Market turbulence	Sig (+/-)	MO is negatively associated with profitability (subjective measure) when market turbulence is high, but positively associated when market turbulence in medium and lower market turbulence MO is positively linked to ROI (objective measure) when market turbulence is low; and negatively associated during medium to high market turbulence.
		Technological turbulence	n.s	Market turbulence does not moderate MO – performance relationship.
Homburg and Pflesser (2000)	Positive	Market dynamism	Sig (+)	The greater the extent of market dynamism, the greater the positive impact of MO on market performance.
Jaworski and Kohli (1993)	Positive	Market turbulence	n.s	MO – performance relationship is significant in low and high market turbulence.
		Competitive intensity	n.s	MO – performance relationship is significant in low and high competitive intensity.
		Technological turbulence	n.s	MO – performance relationship is significant in low and high technological turbulence.

Author(s)/Year	MO-Performance (Main Effect)	Environmental Moderator	Findings	Conclusion and Implication
Kumar, Subramaniam and Yauger (1998)	Positive	Market turbulence	Sig (+)	Market turbulence moderates the relationship between MO and four performance measures (Return on capital (ROC), success of new service, success in retaining patients, and success in controlling expenses).
		Competitive hostility	Sig (+)	Competitive hostility moderates the relationship between MO and three performance measures (ROC, success of new service, success in retaining patients, and success in controlling expenses).
		Supplier power	Sig (-)	Supplier power moderates the relationship between MO and three performance measures (ROC, success of new service, and success in controlling expenses).
Kwon and Hu (2000)	Positive	Market potential	Partial support	High market potential, MO is positively associated performance under high market potential when a single score of export performance and export sales were used, but not significant when performance is assessed using export growth and export profit. In low market potential, all indicators are significant, suggesting MO is more important when exporters facing low growth potentials.
		Foreign competition	n.s	Foreign competition does not moderate MO – performance relationship.
Pelham and Wilson (1996)	Positive	Market dynamism	n.s	Changes in market dynamism have no effect on firm's performance.
		Competitive Intensity	Partial support	Increase competitive intensity only influences the assessment of marketing effectiveness
Pulendren, Speed and Widing (2000)	Positive	Market Turbulence	Sig	Firms need to be more market-oriented in turbulent market environment
		Competitive intensity	n.s	MO is a significant predictor of performance regardless of competitive intensity.
		Technological turbulence	n.s	MO is a significant predictor of performance regardless of technological turbulence

Author(s)/Year	MO-Performance (Main Effect)	Environmental Moderator	Findings	Conclusion and Implication
Rose and Shoham (2002)	Not significant/Partial support	Market turbulence	n.s	Turbulence in market environment increase need for market information but decrease a firm's ability to be EMO.
		Competitive intensity	n.s	Turbulence in competitive environment increase need for market information but decrease a firm's ability to be EMO.
		Technological turbulence	Partial support	MO has a higher impact on profit and change in profit with high technological change.
Slater and Narver (1994)	Positive	Market turbulence	Sig (+)	MO has a higher impact on ROA when market turbulence is low.
		Technological turbulence	Partial support	MO has a higher impact on new product success when technological turbulence is low.
		Competitive hostility	n.s	MO – performance relationship is significant in low and high competitive turbulence.
		Market growth	Partial support	MO has a higher impact on sales growth when market growth turbulence is low.
Subramaniam and Gopalakrishna (2001)	Positive	Competitive hostility	n.s	Competitive hostility does not moderate the relationship. MO results in superior performance regardless of the environment.
		Market turbulence	n.s	Market turbulence does not moderate the relationship. MO results in superior performance regardless of the environment.

2.6   LEVELS ISSUES IN MARKET ORIENTATION STUDIES

In Sections 2.3, 2.4 and 2.5, it was seen that market-oriented behaviour has been conceptualised across different levels. In particular, we saw that two main levels have been used: non-export versus export specific studies. Other levels have also been used by researchers, and it is this issue that is now addressed in more detail.

Levels issues have been a source of continuing debate within the literature in organisational studies (e.g., George 1990; Yammarino and Markham 1992). In any organisation, individuals work in dyads, teams, functions, and departments, thus levels issues become important in theory development. As individuals work in many different levels and layers, researchers need to build theories "with explicit description of the levels to which generalization is appropriate" (Rousseau 1985, p.6).

By their very nature, organisations are multilevel. Researchers studying organisations focus on the overall organisational entities, and not on the nature and role of the elements, sets, members, units and functions (George 1990). However, when applying the level of analysis to the organisational context, Klein, Dansereau and Hall (1994, p. 198) argue that "individuals within groups may be interpreted very broadly to refer to elements that are nested in, or members of, higher level entities, for example, members of a dyad, employees within a team, departments within a company or companies within an industry". Thus, they argue that levels issues infuse organisational theory and research and therefore "[no] construct is level free. Every construct is tied to one or more organisational levels or entities, that is, individuals, dyads, groups, organisations, industries, markets, and so on. To examine organisational phenomena is thus to encounter level issues" (Klein, Dansereau and Hall 1994, p. 198).

Essentially, the level of analysis inherent in theory is important because it is where "generalisation are made" (Rousseau 1985, p. 4) and where a theorist or researcher "aims to depict and explain" (Klein, Dansereau and Hall 1994, p.198). The measurement level, on the other hand, helps to explain where the actual source of data is described. Thus, it is important that researchers specify the theoretical and measurement levels used in the study, such as whether it is at the organisational, group

or individual level. Furthermore, to arrive at solid and meaningful conclusions, theory and measurement need to be congruent and assessed at the same analysis level.

Considering the importance of levels issues in theory development and knowledge accumulation, it is surprising that the issue of level of analysis has received very little attention in the market orientation literature (see Cadogan 2003; Uncles 2000). A review of the literature reveals that market orientation construct is operationalised and measured across many different organisational layers. For example, some studies operationalise market orientation at the overall firm's corporate level, while others suggest that it exists at different levels such as at the strategic business unit (SBU)-level, functional- or departmental-level, or the individual employee level. Specifically, scholars adopt one or more of four levels of analysis in market orientation studies – (1) corporate, (2) strategic business units (SBUs), (3) context specific (departmental, functional or divisional levels), and (4) individual employee. These issues are dealt with in the following sections.

2.6.1 The Corporate-Level Perspective of Market Orientation

The corporate-level perspectives refer to the application of market orientation at the highest level in the organisation (c.f. Varadarajan, Jayachandran and White 2001) and take the view that market orientation can be described and applied across the whole organisation (Cadogan 2003). This approach implicitly embraces the notion that market orientation is applicable for the entire organisation, thus one measures market orientation by aggregating across firms' overall values, beliefs and activities related to market orientation (Cadogan 2003). Stated differently, the corporate-level view focuses on whether the entire business is oriented towards the corporation's customers and the markets. Thus the focal point of the corporate-level analysis is to provide a general understanding of an organisation's market orientation at the general business level (c.f. Ruekert, 1992).

The corporate-view of market orientation is in line with the work of Kohli and Jaworski (1990, p. 1 and 3; italic added) that market-oriented organisation is "one whose actions are consistent with the marketing concept ... a market-orientation refers

to the *organizationwide* generation, dissemination, and responsiveness to market intelligence". Underlying this description is the notion that market orientation, being "a corporate state of mind" (Cadogan 2003, p. 117), provides a guiding philosophy for the whole organisation (Hooley, Lynch and Shepherd 1990). Harris (1998b) also seems to support this argument suggesting that market-oriented cultures play a critical role in guiding organisational success.

Scholars who measure market orientation at this level include Bhuian (1998), Farrell (2000), Greenley (1995a), and Hooley et al. (2000). For example, Greenley (1995a, p.5) argues that an "overall market orientation" measured at the corporate level would provide a deeper insights into our understanding of the market orientation research (Greenley 1995a). Furthermore, top level management such as CEO and managing director hold the key responsibility of executing market orientation in the organisation (Greenley 1995a; Kennedy, Goolsby and Arnould 2003; Webster 1992) and their support and commitment are important for organisations to successfully implement market-oriented behaviour (Kohli and Jaworski 1990; Day 1994; Deshpande, Farley and Webster 1993).

2.6.2 The SBU-Level Perspective of Market Orientation

The SBU-level perspective refers to the implementation of market orientation at the business autonomous unit level (Homburg, Krohmer and Workman 2004; Kohli and Jaworski 1990; Narver and Slater 1990) with a defined business strategy and a manager with sales and profit responsibility (Aaker 1988; Narver and Slater 2000). Developing a market orientation often represents a key strategic change for a business unit. Ruekert (1992) argues that conceptualising market orientation at the SBU-level explains the variation of market orientation between businesses. This is because "different businesses, even within the same organisation, should vary in terms of the degree of market orientation achieved" (Ruekert 1992, p. 229). Additionally, "the development and execution of business unit strategy [should be] the key organising focus of the market orientation" (Ruekert 1992, p. 229). Ruekert's insight is in line with Kohli and Jaworski's (1990, p. 6) original proposition that "the appropriate unit of analysis appears to be the strategic business unit rather than the corporation because

different SBUs of a corporation are likely to be market-oriented to different degrees". Following this logic, it may appear that the whole organisation could not be described in term of its market orientation because the level of market orientation may well differ across their SBUs or departments (see Cadogan 2003). Thus, it may be appropriate to discuss market orientation of the individual SBU considering that market orientation is pervasive at this level.

Nevertheless, Narver and Slater's studies (1990 and 1994) utilise this strategy since the SBUs sample in their study comes from one large corporation. However, one possible weakness of this approach is that the finding may not be generalizable to other businesses due to lack of external validity (Narver and Slater 2000). To address this problem some researchers have examine the market orientation – performance relationship in samples of SBUs from multiple organisations. The latter approach has been used by, among others, Deshpande and Farley (1998), Homburg and Pflesser (2000), Lukas and Farrell (2000), and Slater and Narver (2000). The targeted respondents are mostly management and marketing executives (e.g., Hult, Snow and Kandemir 2003) and managers (Ruekert 1992).

The extant literature in market orientation also shows that the SBU-level of analysis has been applied in several different circumstances. In a slightly different context, Siguaw, Simpson and Baker (1998) employ the SBU-level of analysis in their assessment of supplier-distributor market orientation and channel relationships. In this case, the subjects of the research are the individual supplier and distributor firms and represent a diverse range of multiple organisations from different industries. Others, such as, Piercy, Harris and Lane (2002) operationalise market orientation at the individual retailer level. Likewise, Lings and Greenley (2002) adopt a similar strategy and further suggest that retail stores appear to be equivalent to the SBU level of analysis.

In the international marketing literature, Kirca and Bearden (2002) suggests that market orientation among the subsidiaries of multinational corporations varies across those subsidiaries (i.e., at the subsidiary-level), and the strength of market orientation – performance relationship depends on the country specific environment of the

subsidiary concerned. This follows from Bartlett and Ghoshal's (1991) assertion that the handing over of strategic roles to individual subsidiaries provides each individual subsidiary the freedom to pursue different strategic roles (Hewett and Bearden 2001). Thus the market-oriented behaviour of each subsidiary tend to differ from the firm's other subsidiaries, SBUs or the head office.

2.6.3 The Context Specific-Level Perspective of Market Orientation

Scholars have also measured market orientation at a context specific, functional and departmental level. In this instance, context specific level refers to the adoption of market orientation at the organisation's functions, departments, units, and markets. The subjects of the research include department managers (Kahn and Mentzer 1998) and export managers (Cadogan, Diamantopoulos and Siguaw 2002). Despande, Farley and Webster (1993) in their extensive study of market orientation in several countries implicitly contend that the level of market orientation varies across a firm's markets. In their operationalisation of the market orientation construct, they specifically direct the respondents to refer to a "specific product/market situation ("business")" (p. 356).

Likewise, Baker and Sinkula (1999a) use a "business unit's principal served market" in order to focus respondents' attention to their market-oriented behaviour in that particular market. By referencing respondents to one particular product and/or market, Despande, Farley and Webster, and Baker and Sinkula implicitly concur with the idea that market orientation of one product or/and market is different from the market orientation of a firm's other products or/and markets or even differ from the firm's corporate level. It is interesting to note that Narver and Slater's (1990) study among SBUs also adopt this level of analysis (c.f. Cadogan 2003). Here, Narver and Slater (1990) specifically directed the respondents to focus their answers to the firms' "principal served market", supporting the notion that market orientation can be implemented to varying degree *within* an SBU.

The suggestion that firms have different levels of market orientation across their business operations or markets has been taken further in the international marketing literature. For instance, it has been suggested that exporting organisations might (need

to) implement market orientation differently across their domestic and export operations (Cadogan et al. 2001; Hooley and Newcomb 1983). Furthermore, even within the various export markets (i.e., different countries) their behaviour could also differ (Katsikeas, Leonidou and Morgan 2000). Cadogan and collegues (e.g., Cadogan and Diamantopoulos 1995; Cadogan et al. 2001) adopt and apply this functional level perspective in their conceptualisation of export market orientation behaviour. Specifically, Cadogan (2003) argues that firms' exporting is different from their domestic context, and therefore researchers investigating firms' market orientation in the export markets need to measure market orientation at the firms' strategy implementation level, that is, at the exporting operations and need to "exclude reference to market orientation in firms' domestic markets" (Cadogan 2003, p. 120).

Differences in the level of market orientation can also be found across departments. Kahn's (2001) study among managers from marketing, manufacturing and R&D departments, finds that market orientation levels and product development performance correlate but to varying degrees across these departments. The findings from Kahn's study point that market orientation variation can also be observed at the departmental level. Kahn's assertion that market orientation can be viewed across functional groups is also supported by Tyler and Gnyawali (2002). Their research shows that differences and variation of market orientation across and within a business function are due to managers' cognitive mapping that leads to the variation in perceptions and understandings of certain organisational phenomenon.

2.6.4 The Individual Employee-Level Perspective of Market Orientation

In order to be maximally effective, marketing concept must be embraced by the entire organisation (Drucker 1954). Following from this argument, several scholars (see Celuch, Kasouf and Strieter 2000; Kennedy, Lassk and Goolsby 2002) capture market orientation at the implementation level (i.e., across all levels and functions in the organisation). Specifically, all individual employees in the organisation are involved in the analysis and consequently market orientation is viewed from each individual employee's perspective. This is a further refinement of Kohli and Jaworski's abstract view of organisation-wide market orientation (Kennedy, Lassk and Goolsby 2002).

In this context, Ruekert and Walker (1987a, p.4) note that "there is no reason to expect that any two individuals occupying similar positions within the same functional department will have consistent experiences". Gray et al. (1999, p. 243) are also of the same opinion observing that "marketing manager tend to be slightly more optimistic about levels of market orientation behaviour than chief executives". Due to these differences, managers may have understood and viewed the concept differently, hence implementation of market-oriented activities such as on use of market information (Strieter, Celuch and Kasouf 1999), and customer orientation levels (Brown et al. 2002) tend to vary. The collective market orientation of individual employees from different units, functions and organisational levels thus represent the firms' overall market orientation behaviour (c.f. Kennedy, Lassk and Goolsby 2002; Klein, Dansereau and Hall 1994).

Individual differences in understanding and implementing market orientation are not the only reason that leads researchers to conceptualise market orientation at this micro level. In their empirical work in the service industry, Brown et al. (2002) argue that in the service industry in particular, individual employees are "direct participants in implementing the marketing concept" (p. 110) and therefore individuals are keys to the successful implementation of market orientation. The salespersons' customer orientation, behaviour and attitudes thus, are argued to influence customers' perceptions of a firm's delivery service (Jones, Busch and Dacin, 2003). Accordingly, individual employees' profiles of market orientation levels take on as much meaning as aggregated scores.

The discussion above highlights the presence of varying level of analysis used in the literature and demonstrates lack of agreement with Kohli and Jaworski's (1990) recommendation that SBUs are the only level of analysis from which to view firms' market orientation levels. Table 2.3 provides a summary of selected empirical studies in market orientation and their levels of analysis. In the following section, a further review of the extant literature on levels issues and their application in market orientation research is further explored.

Table 2.3: Summary of Levels of Analysis in Selected Empirical Market Orientation (MO) Studies

Author	MO Scale[*]	Level of Analysis[τ]	Respondents
Abd-Aziz & Mohd-Yasin (2004)	NS[1]	Corporate	Senior Management
Aggarwal & Singh (2004)	KJK[2]	Corporate	Marketing Executive
Akyol & Akehurst (2003)	CDD[3]	Context Specific-level	Senior Management
Appiah-Adu & Blankson (1998)	NS	Corporate	Managing Director
Appiah-Adu (1998)	NS	Corporate	Managing Director
Atuahene-Gima (1995)	Ruekert[4]	SBU	Marketing Manager
Atuahene-Gima (1996)	Ruekert	SBU and Corporate	Senior Manager
Avlonitis & Gounaris (1999)	HLS[5]	SBU	Marketing/Sales Director
Baker & Sinkula (1999)	KJK	Corporate	Senior Management
Baker & Sinkula (1999)	KJK	SBU	Senior Manager
Balakrishnan (1996)	NS	Corporate	CEO
Bhuian (1998)	JK[6], KJK	Corporate	CEO
Bhuian, Menguc & Bell (2005)	JK, NS	Corporate	Administrator
Bigne, Blese, Kuster & Andreu (2004)	KJK, NS	Corporate	Manager
Bigne, Vila-Lopez & Kuster-Boluda (2000)	NS	Corporate	CEO
Cadogan & Cui	CDD	Context Specific-level	Senior Executive
Cadogan et al. (2001)	CDD	Context Specific-level	Export Manager
Cadogan et al. (2002)	CDD	Context Specific-level	Export Manager

[*] "MO Scale" refers to the measuring instrument used to capture market orientation.

[τ] Level of analysis refers to the level at which theory is developed and/or tested. "Corporate-level" refers to the application of market orientation at the highest level in the organisations, and applicable for the entire organisations; "SBU-level" refers to the implementation of market orientation at the business autonomous unit levels; "Context Specific-level" refers to the adoption of market orientation at the organisation's functions, departments, units, and markets; "Individual Employee-level" refers to the collective market orientation of individual employees from different units, functions, and organisational levels.

[1] Narver and Slater (1990)
[2] Kohli, Jaworski and Kumar (1993)
[3] Cadogan, Diamantopoulos and de Mortanges (1999)
[4] Ruekert (1992)
[5] Hooley, Lynch and Shepherd (1990)
[6] Jaworski and Kohli (1993)

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Author	MO Scale	Level of Analysis	Respondents
Cadogan, Cui & Li (2003)	CDD	Context Specific-level	Export Manager
Cadogan, Diamantopoulos & deMortanges (1999)	CDD	Context Specific-level	Export Manager
Cadogan, Diamantopoulos & Siguaw (2002)	CDD	Context Specific-level	Senior Executive
Caruan, Ramaseshan & Ewing (1998)	KJK	SBU	Head of Department
Caruana, Pitt & Berthon (1999)	JK	SBU	Marketing Director
Castro, Armario & Rio (2005)	NS	SBU	Top Management
Celuch, Kasouf & Strieter (1999)	JK	Individual Employee	Individual Employees
Celuch, Kasouf & Peruvembe (2003)	CKP[7]	Corporate	Manager
Conduit & Mavondo (2001)	NS	Corporate	Individual Employees
Dawes (2000)	NS	Corporate	CEO
Deng & Dart (1994)	DD[8]	Corporate	General Manager
Deshpande & Farley (1999)	DFW[9]	Context Specific-level	Senior Executive
Deshpande & Farley (2004)	DFW	Context Specific-level	Senior Executive
Deshpande, Farley & Webster	DFW	Context Specific-level	Senior Executive
Despande, Farley & Webster (2000)	DFW	Context Specific-level	Senior Executive
Diamantopoulos & Hart (1993)	JK, DH[10]	Corporate	Managing Director
Dobni & Luffman (2000)	JK	SBU	Marketing Manager
Dobni & Luffman (2000)	JK, NS, DD, KJK	SBU	Senior Executive
Dobni & Luffman (2003)	JK, NS, DD, KJK	SBU	VP, Director, Manager
Ellis (2005)	NS	Corporate	Manager
Farrell (2000)	NS	Corporate	CEO
Frambach, Prabu & Verhallen (2003)	NS	Corporate	General Manager
Gainer & Padanyi (2005)	NS	Corporate	Senior Manager
Gounaris, Avlonitis & Papastathopoulou (2004)	HLS	Corporate	Marketing Manager

[7] Celuch, Kasouf and Peruvemba (2003)
[8] Deng and Dart (1994)
[9] Deshpande, Farley and Webster (1993)
[10] Diamantopoulos and Hart (1993)

Author	MO Scale	Level of Analysis	Respondents
Gounaris & Avlonitis (2001)	HLS	Corporate	Marketing Manager
Gray et al. (1998)	GMDM[11]	Corporate	Senior Manager
Gray et al. (1999)	GMDM	Corporate	Senior Manager
Greenley (1995a)	NS	Corporate	Managing Director/CEO
Greenley (1995b)	NS	Corporate	Managing Director/CEO
Greenley, Hooley & Rudd (2005)	NS	Corporate	Senior Marketing Executive
Grewal & Tansuhaj (2001)	JK	SBU and Corporate	Manager/Owner
Hampton & Hampton (2004)	KJK	Individual Employee	Individual Employee
Han, Kim & Srivastava (1998)	NS	SBU	Marketing Manager
Harris & Ogbonna (2001)	NS	Corporate	General Manager
Harris (2001)	NS	Corporate	Marketing Director
Homburg, Khromer & Workman (2004)	KJK	SBU	Manager
Homburg & Pflesser (2000)	JK	SBU	Manager
Hooley, Lynch and Shepherd (1990)	HLS	Corprate	Chief Marketing Executive
Hooley et al. (1999)	NS	Corporate	CEO
Hooley et al. (2000)	NS	Corporate	CEO
Hooley et al. (2003)	NS	Corporate	Chief Marketing Executive
Horng & Chen (1998)	JK, NS	Corporate	CEO
Hult & Ketchen (2001)	NS	SBU	Senior Executive
Hult, Hurley & Knight (2004)	NS	SBU	Marketing Executive
Im & Workman (2004)	NS	Corporate	Project Manager
Jaworski & Kohli (1993)	JK	Corporate and SBU	Executive
Jones, Busch & Dacin (2003)	NS	Corporate	Sales Manager
Jones, Chenko & Roberts (2004)	NS	Individual Employee	Individual Employee
Kara, Spillan & DeShield (2005)	KJK	Corporate	Manager
Kara, Spillan & DeShield (2004)	KJK	Corporate	Manager
Kennedy, Lassk & Goolsby (2002)	SOCO[12]	Individual Employee	All Employees

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[11] Gray et al. (1998)
[12] Saxe and Weitz (1982)

Author	MO Scale	Level of Analysis	Respondents
Kohli, Jaworski & Kumar	KJK	SBU/Corporate	Marketing Executive
Kumar, Subramaniam & Strandholm (2002)	NS	Corporate	Not specified
Kumar, Subramaniam & Yauger (1998)	NS	Corporate	Chief Administrator
Kwon & Hu (2000)	JK	Corporate	President (export)
Kyriakopoulos & Moorman (2004)	JK	Corporate	Vice President
Langerak (2001)	Langarak[13]	Corporate	General Manager
Liu, Luo & Shi (2003)	DF[14]	Corporate	Senior Manager
Lukas & Ferrell (2000)	NS	SBU	Key Informant
Martin & Grbac (2003)	NS, JK	Corporate	CEO/President
Matear, Gra & Garrett (2004)	GMDM	Corporate	Manager
Matsuno & Mentzer (2000)	KJK, MM[15]	SBU	Senior Executive
Matsuno, Mentzer & Ozsomer (2002)	KJK, MM	SBU	Senior Executive
Mavondo & Farrell (2000)	JK, NS	Corporate	Managing Director/CEO
Morgan & Strong (1998)	NS	SBU	Head of Marketing
Morgan, Katsikeas & Appiah-Adu (1998)	NS	Corporate	Managing Director
Narver & Slater (1990)	NS	SBU	Top Management
Ngai & Ellis (1998)	NS	Corporate	Managing Director
Nwankwo, Owusu-Frimpong & Ekwulugo (2004)	NS	Corporate	CEO
Padanyi & Gainer (2004)	NS, JK	Corporate	General Manager
Pelham & Wilson (1996)	NS, JK	SBU	Not Identified
Pelham (1999)	JK, NS	Corporate	President
Pelham (2000)	JK, NS	Corporate	President
Pelham (1997)	JK, NS	Corporate	Sales Manager
Piercy, Harris & Lane (2002)	NS, KJK	Corporate	Store Manager
Pitt, Caruana & Berthon (1996)	KJK	SBU	Marketing Director/Manager
Powpaka (forthcoming)	NS	SBU	Manager

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[13] Langarak (2001)
[14] Deshpande and Farley (1998)
[15] Matsuno and Mentzer (2000)

Author	MO Scale	Level of Analysis	Respondents
Pulendran, Speed & Widing (2000)	KJK	SBU	Key Informant
Rose & Shoham (2002)	KJK	SBU	Not Identified
Ruekert (1992)	Ruekert	SBU	Managers
Santos-Vijande et al. (2005)	NS, JK	Corporate	Managing Director
Sandvik & Sandvik (2003)	JK	SBU	Manager
Sanzo et al. (2003)	SSVA[16]	Corporate	Director
Selnes, Jaworski & Kohli (1996)	KJK	SBU	Senior Executive
Siguaw, Brown & Widing (1994)	NS	Individual employee	Sales Personnel
Siguaw, Simpson & Baker (2003)	KJK	Corporate	Key Informant
Singh & Ranchhod (2004)	JK, NS, DD	Corporate	CEO
Soehardi, Hart & Tagg (2001)	NS, JK, DD	SBU	Key Informant
Steinman, Deshpande & Farley (2000)	DFW	Context Specific-level	Senior Executive
Subramaniam & Gopalakrishna (2001)	NS	Corporate	Senior Marketing Executive
Touminen, Rajala &Moller (2004)	JK	SBU	Managing Director
Tse et al. (2004)	NS	Corporate	Senior Manager
Tse et al. (2003)	NS	Corporate	Senior Manager
Tyler & Gnyawali (2002)	TG[17]	Context Specific-level	Functional Manager
Van Egeren & O'Connor (1998)	NS	SBU	Top Management Team
Wood, Bhuian & Kiecker (2000)	WBK[18]	Corporate	CEO
Zhou et al. (2005)	KJK	Corporate	Senior Marketing Manager

[16] Sanzo et al. (2003)
[17] Tyler and Gnyawali (2002)
[18] Wood, Bhuian & Kiecker (2000)

2.7 LEVEL OF ANALYSIS AND ITS IMPLICATIONS FOR THE PRESENT RESEARCH

While it is acknowledged in the literature that there are different degrees of market orientation across organisational levels (see Kahn 2001; Kohli and Jaworski 1990; Ruekert 1992), this issue has received little attention among scholars studying market orientation (c.f. Klein, Dansereau and Hall 1994). Market orientation researchers seem to ignore the fact that the literature consists of studies conducted at different levels of analysis and at different levels of measurement. Research findings have not been differentiated based on their level of analysis. Many researchers implicitly seem to assume that market orientation is a concept that does not need to be considered from a "levels of analysis" perspective. For example, in their study of three successful Australian firms, Conduit and Mavondo (2001) imply that market orientation is level-free to the extent that there is no need to differentiate between firms' market orientation levels across their domestic and international activities. Specifically, they suggest that "the [domestic] operations of these corporations were considered appropriate surrogates for their global activities. …the conclusions and implications apply to the international marketing activities of our sample" (Conduit and Mavondo 2001, p. 16). Thus, in addition to those who simply ignore levels issues, there are also some market orientation researchers who appear to argue that levels issues are not of relevance to market orientation research (c.f. Cadogan et al. 2001).

On the other hand, there are studies that measure market orientation at a corporate-level and indirectly assumed it to mirror those of the SBU-level or department-level (see Cano, Carrillat and Jaramillo 2004; Langerak 2001). For example, in a meta-analytical examination of market orientation studies, Kirca, Jayachandran and Bearden (2005) include a total of 114 major market orientation studies in the 'study sample' but conclude that the analysis *only* includes "articles that measured market orientation at the organisational level"[3] (p. 27). Specifically, in the international marketing literature, scholars have assumed that market orientation measured at the corporate-level can be equated to a firm's SBU-level or at the departmental-levels (e.g., Shoham and Rose 2002; Kwon and Hu 2000). Indirectly, the authors imply that the corporate level

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[3] Their studies include papers that utilises various level of analysis; corporate (e.g., Greenley 1995a; and Hooley et al. 2000), SBUs (e.g., Narver and Slater 1990; and Ruekert 1992), functional (Cadogan, Diamantopoulos and Siguaw 2002; and Kahn 1996).

market-oriented behaviour can be applied to the firm's SBU or functional/departmental-level. Subsequently, some researchers studying firms' market-oriented behaviour of their export operations have measured the construct at the corporate-level, and no specific information on the firms' exporting activities has been deemed necessary. For example, studies by Prasad, Ramamurthy and Naidu (2001) and Rose and Shoham (2002) attempt to link market orientation with export success. However, market orientation was measured at the firms' organisational or corporate-levels, with no explicit mention of the firms' behaviour in their export markets. Indirectly, this suggests that the researchers assume that the level of market orientation at the firms' corporate level can automatically be translated to the firms' export market (c.f. Klein, Dansereau and Hall 1994)[4].

Inevitably, this kind of practice leads to confounded and inaccurate analysis. As Cadogan (2003) notes when discussing mixed levels of analysis in the international marketing literature, assessments of firms' market orientation levels in their export operations have been contaminated by inclusion of reference to firms' activities in their domestic market operations. In the cases of Kwon and Hu (2000), Prasad, Ramamurthy and Naidu (2001), and Rose and Shoham (2002), for example, this implies that "the measures of market orientation used were unlikely to capture accurately firms' level of market orientation in their export operations" (Cadogan 2003, p. 120).

From a theoretical perspective, studies that employ different levels of analysis cannot be cross-compared because "[in] many [cases] the conclusions of research differ as a function of level of analysis" (Klein, Dansereau and Hall 1994, p.196). Furthermore, as Cadogan (2003) and Uncles (2000) point out, problems can arise if comparisons are made among studies that apply different level of analysis. Subsequently, a study that

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[4] Klein, Tosi and Cannella (1999, p. 244) note: "...when individuals do x, y occurs. Therefore, when groups do x, y must also occur. Such a simple translation may not yield profound theoretical insights". From Rose and Shoham (2002), we can infer that if a firm increases the level of its market orientation, potentially it will lead to superior performance. However, an increase in a firm's domestic market orientation will not necessarily lead to greater export market-oriented activities and therefore an increase in export performance is suspect (Cadogan 2003).

utilises corporate-level analysis cannot simply be compared with that of a study that uses SBU or departmental-level analysis (Cadogan 2003).

In the exporting literature, Cadogan and Diamantopoulos (1995) have argued that a firm's market orientation activities in its domestic markets are not the same as in its export markets. Subsequently, they suggest that, for an internationally active organisation, the appropriate level to measure export market-oriented behaviour is at its export operational level.

2.7.1 Conclusions Regarding Levels of Analysis

As can be seen from the earlier discussion, it appears that scholars have examined market orientation at many different levels such as at the corporate-level, the SBU-level, the functional-level and the individual employee-level. It is also important to note that there is no right or wrong level of analysis, different levels can be used as long as they fit the theory being tested (Klein, Tosi and Cannella 1999). The rightness or wrongness of a level of analysis is determined by its fit with other constructs in a theoretical model not by some normative view that a specific level of analysis is always right (and all others are always wrong). This is demonstrated by the fact that so many different levels of analysis have been usefully applied to the market orientation construct in the literature.

Past researchers have examined market orientation at the corporate-level, the SBU-level, the export function-level and the individual-level. However, no research has explicitly examined firms' market-oriented behaviour in their domestic markets. This is interesting, because domestic market-oriented behaviour will not necessarily be exactly the same as those undertaken at the corporate-level, the SBU-level, or the export function-level. Indeed, it can be seen that market-oriented behaviour conceptualised at the corporate-level or SBU-level are, by definition, merely combinations or bundles of market orientation activities occurring at various sub-levels of analysis within the corporation or SBU. For an internationally active organisation that serves both domestic and export markets, it is important that both sides of

operations are incorporated in the analysis so that the overall implications they may have on the organisational indicators can be evaluated. More importantly, the concurrent impact of both domestic and export market-oriented behaviour on organisational performance have largely been ignored in past studies (Katsikeas, Leonidou and Morgan 2000). For instance, an exporting SBU's market-oriented activity can be described in terms of some combination of (a) its market-oriented activity in its domestic markets, and (b) its market-oriented activity in its export markets.

One implication of this kind of logic is that a clear research gap is identified. Specifically, important research questions become apparent. Do significant differences exist between firms' market-oriented behaviour in their domestic and export marketing activities? If so, what are the key reasons behind such differences? What are the performance-related consequences of any differences in magnitude between a firm's market-oriented behaviour levels in its export and domestic marketing operations?

From the evidence presented above, it seems clear that differences in market-oriented behaviour across firms' operations is an important issue that merits further investigation. The above literature review also has highlighted a number of important issues that necessitate further research in order to foster our understanding and knowledge in this area. It is also apparent that existing literature in the market orientation and strategic marketing fields does not provide enough information regarding this important issue. As this review shows, firms' market orientation levels could differ across their domestic and export operations and consequently, such differences could have some implications on their business performance. As it is expected that differences in market-oriented behaviour have performance implications, it is therefore important to identify specific factors that lead to such differences. Furthermore, the present literature has yet to provide any information on this issue, thus, studying antecedents and consequences of firms' differences in market-oriented behaviour across their operations merit further research. Additionally, comparing market-oriented behaviour across organisations functions (i.e. domestic and export) should provide insights and meanings into how market orientation influences business success.

2.8 SUMMARY

The preceding analysis has demonstrated that within one organisation, there are potentially various levels to implement market orientation. The literature has demonstrated scholars studying the market orientation-performance association have operationalised the construct across different organisational levels such as at the corporate, SBU, departmental and functional, and individual employee levels. The discussion on level of analysis has also provided additional insights into some implications for market orientation studies, and provided avenues for further research.

This chapter has also provided a literature based assessment of the range of market orientation studies. The review has raised a number of issues related to the link between market orientation and performance, and possible environment moderators. There are also some key variables that have been found to influence firms' levels of market-oriented behaviour. It was also shown that market orientation has also been looked at using different levels of analysis. The presence of multi-level market-oriented behaviour in the organisation points to the possibility that exporting firms that operate in multiple markets such as in domestic and export markets might have different levels of market-oriented behaviour in their business operations. It is also highly likely that differences in the market-oriented behaviour across firms' domestic and export operations is an important issue as highlighted in this chapter. Consequently, the decision was taken to study differences in the market-oriented behaviour across firms' domestic and export functions. Thus, it is useful to conceptualise the market orientation model of market-oriented behaviour in firms' domestic and export business operations and determine their antecedents and performance consequences. The following chapter discusses the model and the expected relationships between each antecedent to market orientation difference and the consequences of export and domestic market orientation behaviour on organisational performance.

CHAPTER 3

DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS AND THEIR ANTECEDENTS AND CONSEQUENCES

3.1   INTRODUCTION

In this chapter, a conceptual model of the differences in market-oriented behaviour levels across firms' domestic and export operations is developed. It has three main parts. In the first part, the existence of differences in market-oriented behaviour levels across firms' domestic and export operations is discussed, and a hypothesis is presented. In the second part, hypotheses concerning the key drivers of these differences in market-oriented behaviour levels are presented. Finally, in order to explore the performance related consequences of any differences, a second model is presented, in which domestic market-oriented behaviour and export market-oriented behaviour are modelled as antecedents of overall business performance. Moderator effects are also modelled using environmental turbulence in both domestic and export markets.

3.2   DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS

The review of the literature identified three important research questions in need of investigation. The first of these is to determine whether there really are differences in market-oriented behaviour across firms' domestic and export operations. A large number of empirical evidence point that all firms need to be market-oriented regardless of the environmental conditions (Jaworski and Kohli 1993; Slater and Narver 1994). Thus, high levels of market orientation are assumed to be "best practise", and any deviation from this is argued to be dangerous for the long-term survival of the business (Slater and Narver 1994). Underpinning this theory of market orientation's universally positive benefits is the notion that market orientation "exists" and is "consistent or stable" at the business unit or profit centre level (Kohli and Jaworski 1990). However, scholars have started to question the validity of the assumption that firms or business

units have a single market orientation level (see Uncles 2000); indeed, it has been explicitly suggested that market orientation levels may differ across organisation SBUs (e.g., Narver and Slater 1990), departments and or functions (e.g., Cadogan et al., 2001; Kahn 2001; Tyler and Gnyawali 2002) and also across individual employees levels (e.g., Strieter, Celuch and Kasouf 1999).

The market orientation literature indicates that perhaps differences do occur (e.g., Cadogan et al. 2001; Hooley and Newcomb 1983; Kahn 2001). Hooley and Newcomb (1983) for example, commented on the fact that many firms fail to carry their domestic market orientation levels through to their exporting operations, implying that market orientation levels can differ across firms' domestic and export marketing functions. Furthermore, the literature on levels of analysis suggests that such differences are entirely feasible. Indeed, it has been explicitly suggested that market orientation levels may differ across departments and or functions within organisations (Cadogan 2003; Kahn 2001). That is, market-oriented behaviour levels do not *need* to be the same across domestic and export operations. Therefore, it is argued that firms' market orientation levels may differ across their domestic and export operations. Consequently, the following hypothesis is proposed:

H1: Exporting firms ma y have different levels of market-oriented behaviour across their domestic and export marketing operations.

3.3   KEY DRIVERS OF DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS

Assuming that differences do occur between firms' levels of market-oriented behaviour across their domestic and export operations, then it is of interest to identify possible causes of such differences. Figure 3.1 provides an overview of the proposed model of antecedents to differences in market-oriented behaviour levels across firms' domestic and export operations and serves to structure the subsequent discussion. The focus of this preliminary study is on the interface between the firms' domestic and

exporting functions thus all variables identified here are operationalised at the domestic and export business levels. As the model shows, the hypotheses relate to five dependent variables related to the relationship (interfunctional interactions, mutual dependence), strategic (interfunctional strategic symmetry, market dominance), and environmental interfaces between domestic and export business operations. A detailed discussion of the theory underlying the conceptual framework follows.

Figure 3.1: Antecedents to Differences in Firms' Market Orientation Levels Across Domestic and Export Operations
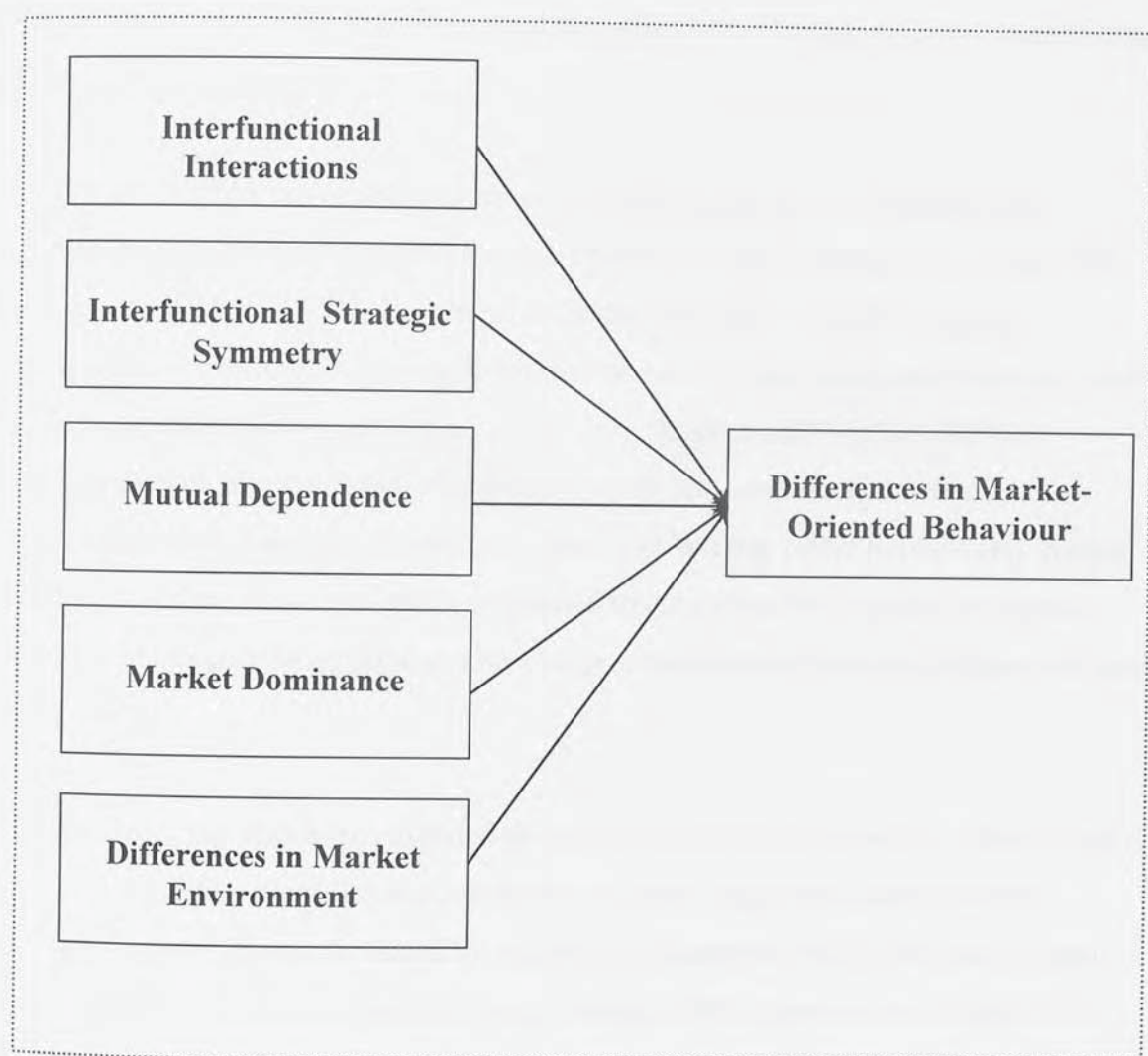
3.3.1. Interfunctional Interactions

Interaction is an organisational process that "represents the structural nature of cross-departmental activities" (Kahn 1996, p. 139). This view emphasises the amount of contact across departments through various means that include routine meetings, teleconferencing, conference calls, memoranda, and the exchange of communication (Kahn and Mentzer 1998; Morgan and Piercy 1998; Van de van and Ferry 1980). Frequent interfunctional interactions lead to better coordination and enhance deeper understanding of information requirements and communication style preferences, and thus increase the effectiveness of information dissemination (Maltz and Kohli 1996; Morgan and Piercy 1998) and its appropriate utilisation (Pulendran, Speed and Widing 2000).

The role of interfunctional interactions of an organisation on coordination and information processing has received much attention in the literature (e.g. Kahn 1996; Ruekert and Walker 1987b). Empirical evidence shows that a high degree of interfunctional interactions among firms' various businesses, units and divisions yields better organisational outcomes (e.g., Kahn 1996; Ruekert and Walker 1987b). Interactions help to open flows of resources, work and assistance across all organisational departments (Pulendran, Speed and Widing 2000; Ruekert and Walker 1987b). Therefore, firms are better positioned to act collectively to meet customers' demands and expectations through knowledge generation and utilization (Jaworski and Kohli 1993).

This argument has also been extended to the market orientation context, where it has been suggested that more interactions between firms' employees across various functions leads to greater levels of information exchange as well as the use of actual market information itself (Deshpande and Zaltman 1982; Jaworski and Kohli 1993). Similarly, in the exporting context, interactions between exporting and other functions heighten export market-oriented activities (Diamantopoulos and Cadogan 1996). Through formal and informal ties, individual units and function can discuss and solve organisational matters such as strategic issues, and information about customers and competitors (Menon, Jaworski and Kohli 1997). More specifically, interfunctional interactions between firms' domestic and export marketing functions may make it

easier for both parties to share the overall planning and implementation of market-oriented activities across the markets.

Drawing from research in the domestic and export specific contexts, it has been suggested that greater levels of interfunctional interactions between firms' domestic and export functions could improve information sharing and processing among all units and this will help to improve organisation understanding about markets requirements. Better interactions between domestic and export functions will also increase employees' awareness about the level of formulation and implementation of market-oriented activities at each functional level. This ultimately will heighten the degree of firms' overall market orientation levels. Consequently, to a large extent, the levels of firms' market-oriented activities will depend on interfunctional interactions. It is therefore expected that with greater interactions between domestic and export units, differences in the levels of firms' market-oriented behaviour across their domestic and export operations will be lower. As a result, the following hypothesis is suggested:

H2: The g reater the interfunctional interactions between firms' domestic and export functions, the smaller the differences in market-oriented behaviour levels across firms' domestic and export operations.

3.3.2. Interfunctional Strategic Symmetry

Firms' strategy can be classified into several typologies and is characterised by a distinctive strategic response to the environment (McDaniel and Kolari 1987; Miles and Snow 1978). Miles and Snow's (1978) strategic typologies, known as prospectors, analyzers, defenders, and reactors, also include elements of technology, structure, and process that are consistent with the firms' strategic responses.

The strategic management literature suggests that business strategy type can also influence an organisation's market orientation level (Kumar, Subramanian and Strandholm 2002; Lukas 1999; Matsuno and Mentzer 2000; McDaniel and Kolari 1987; Morgan and Strong 1998). As Lukas (1999, p. 148) states "[the] more

information processed from customer, competitor, and internal sources, the greater the degree of market orientation".

Specifically, literature indicates that the strategic type of a business will be reflected in its intelligence generation activities. Hrebiniak and Joyce (1985) argue that cost leadership firms will be internally focus (e.g., lowering cost curves and increasing efficiency) and hence become less market-oriented than differentiator-driven firms (Kumar, Subramanian and Strandholm 2002; Lukas 1999). Some cost leaders may also attempt to generate information about their competitors and prepare response action, it may be done cautiously due to the cost involved in intelligence generation and, hence, the necessity for intelligence generation is reduced (Kumar, Subramanian and Strandholm 2002; Miller 1989). Customer responses to cost leaders' reaction are more predictable because they (customers) are more concerned about price and therefore it is "easier to forecast [customer behaviour] when only price matters" (Kumar, Subramanian and Strandholm 2002, p. 40) and this greatly reduces the need for costly information processing (Miller 1989). For differentiators, competitors' actions have to be monitored closely in order to produce unique products, and at the same time they need to safeguard their activities from attracting competitors' responses (Homburg, Workman and Krohmer 1999; Miller 1989). Thus information about competitors' actions has to be closely monitored and response action has to be done rather quickly.

Lukas (1999) proposes that firms' level of market orientation differ across their strategic orientations. Using Miles and Snow's (1978) typology, Lukas argues that firms will base their market orientation levels on the strategy they pursue. This is because each type of strategy has a unique strategic response to external forces and hence associates systematically with a distinctive market orientation. Empirical evidence has also shown that as firms move from the prospector to analyser to defender to reactor continuum order, they become less responsive to the environmental forces, hence their level of market orientation will be reduced in a similar pattern (Homburg, Workman and Krohmer 1999; Lukas 1999).

Similarly, the analysis above can be applied to the firms' domestic and export functions. Firms may adopt different strategic orientations across their domestic and export markets depending on the external and internal forces unique to their business environment, departmental or functional objectives. Each department with a specific target market may pursue its own strategy type because the forces in each particular market might be different, hence raising the possibility that they pursue different strategy orientation (c.f. Stewart and McAuley 2000). On the other hand, firms might also adopt one common strategy for both domestic and export markets due to various reasons such as having similar market scope (Stewart and McAuley 2000), and product standardization across firms' various markets (Cavusgil, Zou and Naidu 1993). However, as the literature reveals, if they have different strategy types in their domestic and export markets, their degree of market-oriented behaviour will also be different. Therefore, it is argued that firms' market-oriented behaviour levels can vary depending on the strategy types adopted across their domestic and export markets. Consequently, a symmetrical strategy across firms' domestic and export operations will lead to lower differences in firms' market-oriented behaviour levels, while asymmetrical strategies across these two operations will lead to higher levels of market-oriented difference. Thus the following hypothesis is advanced:

H3: The degree of interfunctional strategic symmetry between firms' domestic and export functions is negatively related to the differences in market-oriented behaviour levels across firms' domestic and export operations market orientation differences.

3.3.3 Mutual Dependence

Mutual dependence refers to the degree of interdependence between firms' domestic and export marketing functions on organisational resources, support and output in implementing market orientation across firms' domestic and export operations. Lack of mutual dependence suggests that either the firms' domestic marketing function (or export marketing function) does not depend heavily on the exporting function's (or domestic marketing function's) resources, support and output in order to generate, disseminate and respond to market intelligence in the firms' domestic markets. This

concept is derived from Ruekert and Walker's (1987a) interfunctional interdependence conceptualisation that reflects the importance to a member of one functional area of obtaining resources from another area to accomplish their objectives. Bound by limited resources, individuals, functions, and departments are expected to depend on other functions to achieve departmental and organisational goals. In addition, the degree to interdependence within functional areas will have a positive effect on mutual understanding and relationships among members of various functions in the organisation.

Support to the effect of this notion can be found in other research areas. According to social exchange theory, the degree of dependence among parties involved in relationships is important. This is because the level of dependency of participating members will have a direct influence on the motivation to help build quality relationships (Morgan and Hunt 1994). Specifically, according to this theory, the imbalance of power (when one party is dependent on the other) will lead one party to directly influence the activities of the other (Molm 1994). It is also further suggested that the dependence of one party on another will have a positive relationship with acquiescence to that party (Bendapudi and Berry 1997). While dependence leads to acquiescence, interdependence brings greater awareness, sharing of organisational objectives, encourage greater communication between departments, leads to greater level of understanding and rapport between partners, and reduces conflicts (Barclays 1992; Anderson, Lodish, and Weitz 1987).

In the firms' interfunctional context, the greater the perceived dependence of one function on another, the greater the power of the more independent function to exert influence to the more dependent function. This argument can be extended to the domestic and export interfunctional relationships, for example it can be expected that the less dependent function will exert greater influence on important decisions such as on the market intelligence generation strategies. Therefore, it can be expected that if the export marketing function is more dependent on domestic function, export marketing managers will have to acquiesce to the marketing planning of the domestic units and vice versa (c.f. Hewett and Bearden 2001).

In seeking to identify the applicability of the arguments above to the differences in market-oriented behaviour levels across firms' domestic and export operations, it can be inferred that higher interfunctional interdependence leads to greater communication, sharing, and understanding interfunctionally. The support for information exchange activity across firma' units is expected to have positive effects on the intelligence dissemination and response action and market orientation (Kohli and Jaworski 1990; Narver and Slater 1990). Similarly if both domestic and export functions are highly independent, the tendency for them to work together will be lower and hence neither function will have greater influence over the other on its market orientation activities. Specifically, it can be argued that the higher the interfunctional interdependence of the domestic and export functions, the greater the level of resources, information and work flows and therefore the smaller the differences in the implementation of market orientation activities. Consequently the following hypothesis will be tested:

H4:   The g reater the mutual dependence between firms' domestic and export
        marketing functions, the smaller the differences in market-oriented behaviour
        levels across firms' domestic and export operations.

3.3.4. Market Dominance

Firms with export operations often are involved in exporting as a peripheral activity (Cavusgil and Nevin 1981). However, as they become more committed to exporting as a way of doing business, their dependence on exporting increases (Cavusgil and Zou 1994; Leonidou, Katsikeas and Piercy 1998). Market dominance refers to the degree to which either a firm's domestic market sales or export market sales dominate. Lack of dominance indicates that the percentages of the firm's sales obtained from its domestic operations and from its export operations is equal. It is further argued that firms' market dominance across their operations will have direct positive impact on differences in the firms' market-oriented behaviour. Market dominance refers to the degree to which a firm depends on its sales revenues from one market over the other in its domestic and export operations. Thus, for a firm that experiences low market dominance, both domestic and export operations contribute equally to organisational success. Likewise, if a firm has high market dominance, the contribution to business

success from its domestic operations is significantly larger that its export operations, or vice versa.

The export marketing literature suggests that firms' export marketing research activities tend to have a strong positive relationship with their export size (Belich and Dubinsky 1995; Cadogan, Diamantopoulos and Siguaw 2002; Souchon and Diamantopoulos 1996; Cavusgil 1984). For example, the greater the export sales revenue, the more resources a firm will commit on information gathering and dissemination activities in its export markets. Firms that are highly dependent upon their overall success from export operations perceive export market-oriented activities to be critical for their survival. These export dominant organisations will place a high priority in the generation of relevant export intelligence, encourage a sophisticated dissemination approach, and will give high priority to export market responses actions in the anticipation that this will lead to better overall performance. Similarly, for the domestically dominated organisations, where the dependence on the domestic market is greater, it is expected that considerable attention will be given to the firm's domestic function. These firms are likely to invest more resources on generating market intelligence, dissemination and taking response action in their domestic relative to their export markets. (c.f. Homburg, Workman and Krohmer 1999).

On the other hand, firms with little involvement in their export markets may not commit resources to the export market; instead, these firms may rely heavily on the intuition of personnel assigned to the function (Cavusgil 1984; Souchon and Diamantopoulos 1996). As Souchon and Diamantopoulos (1996, p. 61) suggest "[f]or firms with substantial export operations, the cost of wrong decisions can be very high; therefore, effective use of information becomes less a choice than a necessity". Additionally, firms that have relatively small volumes of export sales may "prefer to make decisions on the basis of limited research aided by judgement calls" (Cavusgil 1985, p. 28).

The above arguments can also be extended into the relative dependence firms place on their domestic vis-à-vis export markets. If a firm is highly involved in its domestic market due to the contribution of the domestic sales revenue, it can be expected that its market orientation activities to be more 'necessity' in its domestic market. Firm can

justify larger commitment on information gathering and dissemination activities to the more important domestic markets. Managers will place high priority on information gathering activities, and giving more attention to ensure personnel involved in planning and implementation of marketing strategy have access to market information. This in turn will encourage faster response actions from all parties. Likewise, if the export markets provide stronger sales revenue relative to the domestic markets, it is expected that the level of market orientation in the export market to be relatively higher than the one in the domestic markets. Also, if the market dominance is low where neither export nor domestic markets play dominant role, it can be expected that the difference in the level of market orientation between domestic and export to be relatively small. The above arguments lead to the following hypothesis:

H5: The greater the degree to which either domestic market sales or export market sales dominate firms' sales activities, the greater the difference in market-oriented behaviour levels across firms' domestic and export marketing operations.

3.3.5 Differences in Domestic and Export Market Environments

It is acknowledged in the literature that firms operating in different markets are exposed to different sets of environmental forces (e.g., Gray et al. 1999). In fact, evidence suggests that foreign market environments can be very complex and that firms operating in international markets are often exposed to environmental forces which are very different from those in the domestic markets (Cadogan and Diamantapoulos 1995; Czinkota, Ronkainen and Moffett 1998; Raven, McCullough and Tansuhaj 1994). In this study, differences in domestic and export market environments refer to the extent to which the market environment in firms' domestic operations varies from the environment encountered in the firms' exporting operations. Large differences between domestic and export market environments indicates that the degree of the market turbulence is relatively high in one market (e.g., domestic market) over the other (e.g., export market). On the other hand, low differences between domestic and export market environments suggest that the market environments in domestic and export markets are about the same levels.

The extant literature indicates that the business environment will influence the firms' market orientation levels (e.g., Slater and Narver 1994; Pelham and Wilson, 1996). Davis, Morris and Allen (1991, p. 45) state that "a company-wide marketing orientation would seem most critical when customers, their needs, the technologies for addressing these needs, and the economies of doing so are in the state of flux". Backing this proposition is Daft, Sormunent and Parks's (1988) observation that increased environmental uncertainty requires increased information acquisition and processing about the environment, especially about customer, economic, and competitor forces. Specifically, under conditions of high competitive intensity, technological change, and market turbulence, there is a greater likelihood that the synchronization between the firm's offerings and customers' needs may be lost (Slater and Narver 1994).

Another specific argument is provided by Kohli and Jaworski (1990, p. 14) who assert: "when an organisation caters to a fixed set of customers with stable preferences, a market orientation is likely to have little effect on performance because little adjustment to a marketing mix is necessary to cater effectively to stable preferences of a given set of customers. In contrast, if ...preferences are less stable, there is a greater likelihood that the company's offerings will become mismatched with customer's needs... an organisation must therefore [be market-oriented] ...and ascertain the changed preferences of customers and adjust its offerings to match". Kohli and Jaworski (1990) then hypothesise that the greater the market turbulence, the stronger the relationship between market orientation and business success.

Following this logic, if firms are exposed to different levels of environmental turbulence in their domestic and export markets, they will need to generate, disseminate and respond to intelligence differently across those markets. For example, if the market environment in the domestic market is much more turbulent than firms' export markets, firms may choose to adopt a higher level of market orientation in their domestic markets, whereas if the export environment is more volatile, firms may need to be more sensitive to the export markets requirements and put more resources to enhance their export market-oriented behaviour (see Grewal and Tansuhaj 2001; Homburg and Pflesser 2000). As a result, it is expected that differences in the level of

environmental turbulence across firms' domestic and export markets leads firms to generate, disseminate and respond to market intelligence differently across their business operations. Therefore it is hypothesised that:

H6: The greater the difference in the environmental turbulence across firms' domestic and export markets, the greater the difference in the level of market-oriented behaviour across firms' domestic and export marketing operations.

3.4 PERFORMANCE CONSEQUENCES OF DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS

The objective of this section is to investigate the outcome of differences in market-oriented behaviour levels across firms' domestic and export operations on organisational performance. It is argued in the previous section that there are several key drivers that may influence firms' differences in market-oriented behaviour across their domestic and export operations. The literature review section (Chapter 2) also has highlighted that firms operating in different markets may behave differently and a single level of market orientation that caters to firms' domestic and export markets may not be appropriate for exporting organisations. For exporters, market-oriented behaviour must correspond to their domestic and export markets. Accordingly, firms' domestic market-oriented behaviour and export market-oriented behaviour need to be contextualised for the firms' domestic and export market operations respectively.

In order to investigate the performance related consequences of differences in market-oriented behaviour levels across firms' domestic and export marketing operations, the model presented in Figure 3.2. is used. Here domestic market-oriented behaviour and export market-oriented behaviour are modelled as independent antecedents to overall sales performance, which in turn feeds into firms' overall profit performance. Turbulence in the firms' domestic and export markets, respectively, moderate the links between market-oriented behaviour and performance.

If differences in market-oriented behaviour levels across domestic and export marketing activities are suboptimal for a firm's overall performance, then the main

effect from market-oriented behaviour to performance, and the environmental moderator effects, should be identical across firms' domestic and export operations. This would be consistent with the notion that market-oriented behaviour should not differ across domestic and export markets even if their environments are very different. Indeed, firms should be striving to increase market-oriented behaviour uniformly across the organisation. However, if different main effects or moderator effects are identified across the domestic/export divide, then this indicates that differences in the level of market-oriented behaviour across firms' domestic and export operations are warranted depending on the situations facing firms. In what follows, the logic underpinning the model is discussed in detail, and a battery of hypotheses are formulated.

Figure 3.2: Firms' Domestic Market-Oriented Behaviour, Export Market-Oriented Behaviour, Environmental Turbulence Moderators and Performance Outcomes.
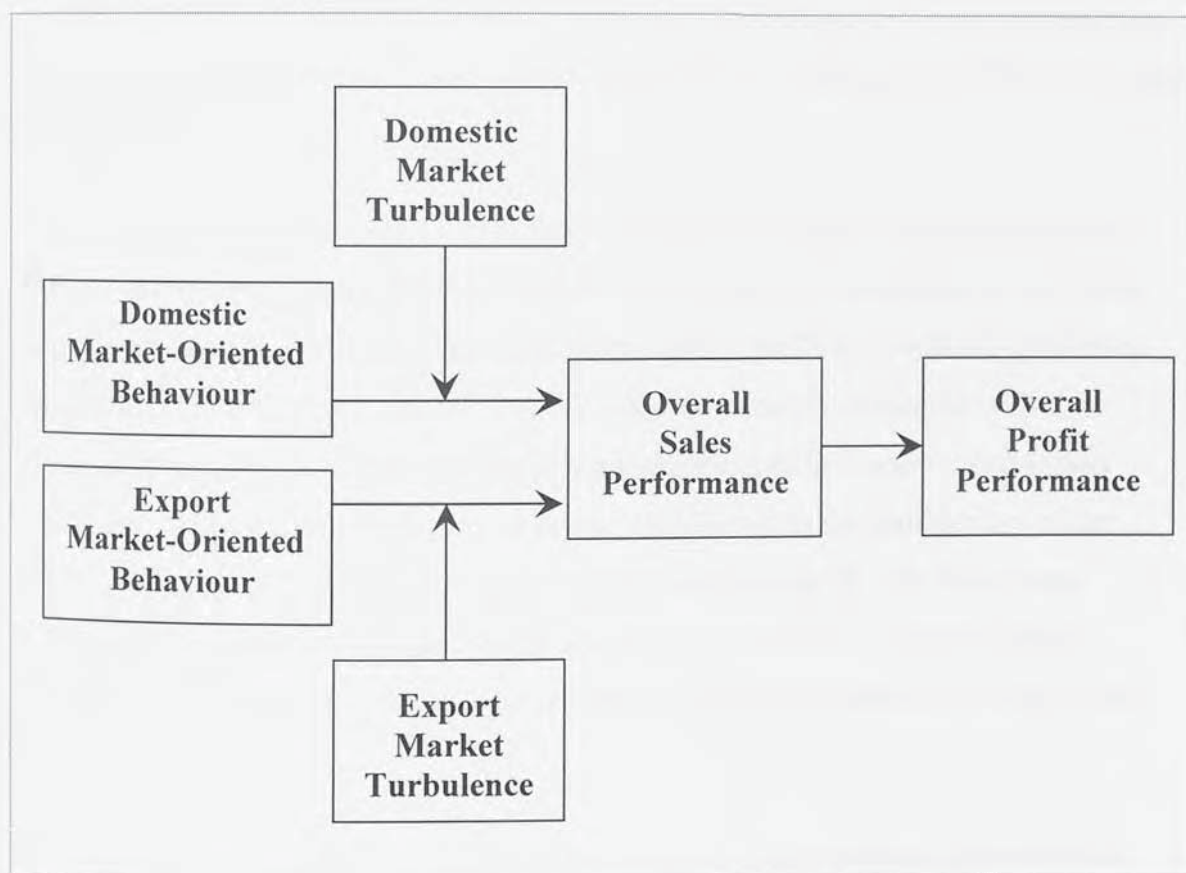
3.4.1 Market-Oriented Behaviour and Organisational Performance

The empirical link between market-oriented behaviour and performance is well established in marketing literature. The results indicate that firms with a strong emphasis on market orientation have higher long-term performance (Homburg and Pflesser 2000). It is argued that market orientation is important because firms can consistently identify and respond to customers' present and future needs. Accordingly, firms will be able to satisfy their customers better than their competitors.

The literature review (Chapter 2) demonstrates that there is growing body of empirical evidence to suggest that there is a strong positive association between market orientation and performance (e.g., Greenley 1995b; Slater and Narver 1994). The positive relationship between market orientation and organisational outcomes is not only applicable in the firms' domestic setting, but the relationship also holds in the firms' export function. Research in the exporting field also has shown that firms exhibiting market-oriented behaviour in their export operations are more successful in their exporting performance (Akyol and Akehurst 2003; Cadogan et al. 2002; Rose and Shoham 2002).

Consistent with previous studies, the effect of market orientation on performance is divided into two; the direct effect of market orientation on overall sales performance and the indirect effect of market orientation on overall profit performance (Homburg and Pflesser 2000; Pelham 1997b). Overall sales performance concerns with the organisational sales growth in relation to the industry in both domestic and export operations. Overall profit performance is operationalised as the profitability of the business operations in the domestic and export markets over the last three years. Following Homburg and Pflesser (2000) and Pelham (1997b), it is argued that a market-oriented behaviour has an indirect effect on profit performance through sales performance.

Several empirical studies reveal positive and significant correlational links between market orientation and different performance measures (e.g., Jaworski and Kohli 1993; Narver and Slater 1990; Slater and Narver 1994). Through market-oriented activities, firms are able to provide greater focus on delivering greater value to customer and also

able to compete with competitors' activities (Kohli and Jaworski 1990). Similarly, market-oriented organisational culture's are also more likely to have a positive impact on market performance (Narver and Slater 1990). A greater understanding of customers and striving for superior service effects sales growth and market share directly (Pelham 1997a). Furthermore, satisfied customers are more likely to engage in positive word of mouth (Reichheld and Sasser 1990), which in turn will directly influence sales growth and market share. Consequently, market-oriented firms are highly likely to achieve higher customer satisfaction, are better able to keep existing customers, attract new customers and consequently attain the desired growth and market share. Stated more formally:

H7: There is a positive relationship between firms' domestic market-oriented behaviour levels, and firms' overall sales performance.

H8: There is a positive relationship between firms' export market-oriented behaviour levels, and firms' overall sales performance.

3.4.2 Overall Sales Performance and Overall Profit Performance

As argued above, market-oriented behaviour will contribute positively to firms' sales performance. Furthermore, the literature indicates that market performance is a necessary antecedent to financial performance (Buzzell and Gale 1987; Homburg and Pflesser 2000). Furthermore, research on the performance implications of customer satisfaction and loyalty provides strong support for the notion that market performance (as measured by sales and growth) is positively associated with financial performance (Anderson and Sullivan 1993; Fornell 1992; Rust and Zahorik 1993). Higher sales levels, sales growth, and market share can lead to profitability through increased economies of scale and scope, and market power (Buzzell, Gale and Sultan 1975).

Furthermore, loyal customers can increase a firm's profitability through the absence acquisition costs, lower operating costs, referrals and high price tolerance (Reichheld 1996). Evidence from PIMS studies identify market share as one of the most crucial factors influence firm's profitability (Buzzell and Gale 1987, p. 45). Likewise, Pelham

(1997a, p.60) suggest that a highly market-oriented organisation "may choose to sacrifice short term profitability by significant investments designed to improve product value for customers". Indeed, literature in the market orientation domain also shows that there is a positive relationship between market performance and firms' profit performance (Cadogan et al. 2002; Cadogan, Cui and Li 2003; Homburg and Pflesser 2000; Hooley et al. 2005; and Pelham 1997a). Thus the following hypotheses are offered:

H9:   Overall sales performance is a positively related to overall financial performance.

3.4.3 Environmental Turbulence as Moderator

Given that market orientation correlates strongly with organisational performance, another question arises as to whether this situation is robust across all business conditions. This issue has been discussed in some details in Chapter 2 (Section 2.5.2). Monitoring, collecting and responding to intelligence about customers, competitors and technology can be very costly in terms of human and financial resources and can only be justified if the outcomes outweigh the costs associated with these activities.

For instance, in an ever changing business environment, information is quickly outdated (c.f. Souchon and Diamantopoulos 1996; Weitzel 1987), and there is pressure to collect increasing quantities, and invest more resources into the generation process. This pressure is less obvious in more stable environmental conditions. Furthermore, with large quantities of information collected in turbulent market conditions, it is likely that the communication process within firms will become impeded by information load and distortion (Cadogan and Diamantopoulos 1995). Past studies have shown that too much information can have negative influence on human information processing and can consequently lead to poor performance (Jacoby 1984; Malhorta 1984, Sivaramakrishnan and Perkins 1992). Cadogan and Diamanatopoulos (1995) concede that the dissemination of vast quantities of market intelligence across individuals and organisations may create blockages, and information may be overlooked, misinterpreted and misconstrued along the communication channel.

In a hostile environment where the needs and preferences of the customers continue to change, and with competitors up-dating their technology to introduce better and newer products, firms may have to respond in order not to lose out to competitors. However, if the customers' preferences pattern continues to change further, additional response actions could be very costly as the costs associated with them may be greater than the benefits gained from such responses. Firms operating in higher uncertainty and turbulent environments will attempt to reduce this uncertainty by generating more market intelligence and thus use to a greater extent the information obtained (Glazer and Weiss 1993; Menon and Varadarajan 1992; Souchon and Diamantopoulos 1996).

In a dynamic and uncertain environment, managers are more likely to be more proactive and innovative (Miles and Snow 1978), and implement more extensive, more comprehensive and more multifaceted strategies (Khandwalla 1976). As the uncertainty increases, the requirement and expectation for firms' to be more market-oriented increases as well. When the degree of the competition increases, firms' market orientation will also need to increase (Houston 1986) to improve performance (Kohli and Jaworski 1990). Consequently, this may lead firms to focus, among others, more on learning about competitors and institutionalised this activity over time (Han, Kim, and Srivastava 1998). In a relatively strong economy and stable demand, firms are expected to "*get away with* a minimal amount of market orientation" (Kohli and Jaworski 1990, p15) and a relatively moderate degree of market orientation is sufficient to serve the stable preference of the customers.

The discussion above has focused mainly on the environmental turbulence as potential moderator to the market orientation – performance relationships. However, research in the exporting context has also shown the same phenomenon that takes place in the non-export (or domestic) context. For example, Cadogan, Cui and Li (2003) find support for the notion that export environment moderates the export market-oriented behaviour – export performance relationship. Under conditions of low competitive intensity, export market-oriented behaviour was negatively related to export sales performance, but the relationship turns positive under high competitive intensity. When the competitive turbulence is low in the export market, there is less need for firms to be more market-oriented in their export markets. Rational and successful firms

will choose to have lower export market-oriented behaviour levels. As turbulence in the export markets becomes higher, firms need to engage more in becoming more export market-oriented in order to maintain the same levels of performance and competitiveness. The need for an appropriate response to competitors is also greater in highly competitive environment. Therefore, the following hypotheses are proposed:

H10: Domestic environmental turbulence moderates the positive relationship between domestic market-oriented behaviour and overall sales performance: under low levels of domestic environmental turbulence, the relationship is weak; however, as domestic environmental turbulence increases, so too does the strength of the relationship between export market-oriented behaviour and overall sales performance.

H11: Export environmental turbulence moderates the positive relationship between export market-oriented behaviour and overall sales performance: under low levels of export environmental turbulence, the relationship is weak; however, as export environmental turbulence increases, so too does the strength of the relationship between export market-oriented behaviour and overall sales export performance.

3.5   SYNTHESIS AND CONCLUSIONS

This chapter presents a model of the differences in market-oriented behaviour levels across firms' domestic and export operations. Firstly, it was shown that firms may have different levels of market-oriented behaviour across their domestic and export operations. Focussing on the interface between the domestic and export functions, it was argued that there are five key drivers of these differences in market-oriented levels. Finally, a framework of consequences of firms' domestic and export market-oriented behaviour on performance were modelled and discussed in light of differences in firms' market-oriented behaviour across their domestic and export operations and their impact on performance was discussed. Specifically, it has been argued that the domestic market-oriented behaviour – sales performance relationship, and the export market-oriented behaviour – sales performance relationship are moderated by domestic and export environmental turbulence levels, respectively. The next chapter describes how the proposed framework was operationalised by describing the research design and methodology.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter describes the methodology employed in collecting data for hypotheses testing. The focus of the research design for this study was based on the research objectives as outlined in the earlier chapter. In this case the objectives are to determine whether there are differences in market-oriented behaviour levels across firms' domestic and export operations, and identify their key antecedents and examine consequences of such differences on firms' performance. The first section of this chapter discusses general data collection issues, followed by the design of the measurement instruments. Finally, the research instrument, sample design and data collection processes are outlined.

4.2 GENERAL DATA COLLECTION ISSUES

4.2.1 Cross Sectional versus Longitudinal Design

Churchill (1999) highlights that there are two main types of descriptive study, cross sectional design and longitudinal design. Longitudinal design offers advantages over cross sectional design due to the quality of data collected and also the rigours of analysis that can be performed. However, all but three of the market orientation studies cited in Chapter Two made use of cross sectional research designs (see Dawes 2000; Noble, Sinha and Kumar 2002; Pelham and Wilson 1996). An acknowledged weakness of the cross sectional approach is its temporal priority; one prerequisite for inferring causality is not present (Bollen 1989). In addition, the effect of market orientation on performance may be

lagged and perhaps cannot be detected through cross sectional data research (Pelham and Wilson 1996) [1].

However, the disadvantages of such design is that it lacks "representativeness" (Chisnall 97; Churchill 1999), is more expensive and it also requires the conducting of the study over a long time period. The financial and time constrains of this study meant that a longitudinal study design was not feasible and therefore a cross sectional design was adopted.

As Pelham and Wilson (1996) contend, although confidence in the causal effects of market orientation may be reduced, due to lack of longitudinal data, this will be minimal because a market orientation forms over a long time: "a measure taken once within a 3- to 4-year period will be representative of the firm's [market orientation]" (p. 33). In fact, cross sectional design is by far the most common method for generating the data. As Greenley (1995c) points out, this is to be expected in an area where empirical evidence is recent and incremental development of knowledge is necessary. In cross sectional studies, researchers can also assess patterns of association between variables of interest, to see if they are in line with the theory (Cadogan et al. 2001). Nevertheless, if the researcher designed the questionnaire carefully, one can have the current as well as the historical data so that inferences about causality can be made.

4.2.2 Administration Method

Several data collection methods were weighted for their advantages and disadvantages, taking into consideration the research objectives as outlined earlier. The population of the study includes all UK exporters and a relatively representative sample drawn randomly from this population. This is needed for increased confidence in the findings which can be

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[1] Dawes (2000), and Wilson and Pelham (1996) longitudinal studies however, use one-year lagged data, hence, the likely causality of market orientation and performance is suspect. This is especially so if data was collected within less than twelve months apart but in two different calendar years. On the other hand, Noble, Sinha and Kumar (2002) use secondary data in assessing market orientation and other strategic orientations, collecting information from, among others, newspaper articles, and letters to shareholders.

generalised to the whole population. Additionally, it was also deemed important to obtain a large sample size to ensure that the subsequent analysis would have enough statistical power. Given this set of requirements, a mail survey was deemed as the optimal approach to data collection.

Given the cost and time constraints, personal interview was ruled out as the main method of data collection (Steinman, Deshpande and Farley 2000). Telephone interview was also considered but was rejected due to potential problems associated with the technique. Asking respondents highly sensitive questions on such subjects as organisational performance, and interfunctional strategy, may produce inaccurate results due to interview bias, especially when the interview is lengthy. In fact with an 11-page questionnaire instrument used for this study, telephone interview is the least appropriate method for collecting data (Churchill 1999).

The problems that have been associated with personal and telephone interviews can be overcome through administering the questionnaire by mail. A mail survey is also considered as a cheap method especially when dealing with a widely dispersed population like the present research (Jobber 1989). It is also argued that problems associated with potential perception bias between interviewer and interviewee can be controlled through the mail survey method. The anonymity linked to postal questionnaires will allow respondents to be more open when answering sensitive issues (Churchill 1999; Diamantopoulos and Schlegelmilch 1996). Furthermore, respondents are allowed to complete the questionnaire at their own pace, or in their own leisure time.

The major disadvantages of the mail questionnaire are related to two main issues, notably low response rate and non-response bias (see Diamantopoulos and Schlegelmilch 1996; Jobber, Saunders and Mitchell 2004). Low response rate from this method limits the analysis that can be performed, thus lowering the statistical power of the analysis. On the other hand, non-response bias may occur if those who did respond are different in some important ways from those who did not respond (Churchill 1999). However, regardless of

the techniques used, non-response bias also poses problems for other types of administration techniques adopted (Daniel et al. 1982).

The setbacks of employing mail survey technique can be partially counter balanced through employing certain methodological techniques as outlined in the literature (see Armstrong and Overton 1977; Churchill 1999). A personalised cover letter, assurance of anonymity and confidentiality (Diamantopoulos and Schlegelmilch 1996), sending a follow up questionnaire (Fox, Robinson and Boardley 1998) are some of the methods recommended in order to increase response rate. Furthermore, non-response bias may be estimated and corrected if necessary (Armstrong and Overton 1977).

4.2.3   Choice of Respondents

The source of information for a study is pertinent to the accuracy of the findings, without which, the results and conclusion drawn cannot be generalised for the intended population. As outlined in the objectives of the study and the theory developed from the literature (Chapter 2 and Chapter 3), the study requires detailed information on the domestic and export operations of all organisations surveyed. From this perspective, the most effective way to get the information is directly from the source, in this case it would be the key informants from both sets of operations. The domestic-export operations dyad would be the optimal situation and in market orientation research, dyad technique has been used by, among others, Deshpande and colleagues (see Deshpande, Farley and Webster 1993, 1999, 2000), Langerak (2001) and Van Egeren and Trinh (1999). However, it is acknowledged that this method is both "time consuming and extremely expensive" (Steinman, Deshpande and Farley 2000, p. 112). One particular disadvantage of utilising this method is the low response rate yield due to the matched sample required from two or more parties involved in the studies. A market orientation study by Siguaw, Simpson and Baker (1998) illustrates this phenomenon; from an overall response rate of 36.96 percent, the effective response rate falls to 15.88 percent for the supplier and distributors dyad. Hence, in order to guarantee a sufficient number of data points for rigorous data analysis and model testing, it is likely that a very large sample of paired respondents is necessary.

Subsequently, this method was discounted after taking into consideration the cost and sample size requirement in order to make the study more generalisable. Hence, a single respondent format was adopted for this study. Of course, the chosen respondent should be the one who is able to provide sound and knowledgeable information about a firm's functional operations in *both* domestic and export contexts. Prior market orientation studies have used various respondents including CEOs, presidents and general managers (Baker and Sinkula 1999a; Hooley et al. 2000; Hult and Ketchen 2001), marketing managers and sales managers (Deshpande and Farley 1998a), other functional managers such as R&D managers (Kahn 1998), finance managers (Tyler and Gnyawali 2002), and marketing executives (Grewal and Tansuhaj 2001). In fact, by far the majority of market orientation studies use single informants (Greenley 1995b; Lukas and Ferrell 2000; Pulendran, Speed and Widing 2000; Rose and Shoham 2002; Slater and Narver 2000) Furthermore, top managers such as presidents, CEOs, general managers, managing directors and other senior managers have also been commonly used as the source of information in domestic based studies.

In the export market orientation studies, CEOs, Presidents, export directors and export managers have been utilised as key informers (see Akyol and Akehurst 2003; Cadogan Diamantopoulos and Siguaw 2003). While the use of these managers as key informers is more common in the general or domestic marketing research (see Bhuian 1998; Greenley and Foxall 1998; Jaworski and Kohli 1993; Matsuno and Metzer 2000) the use of the same managers to provide information in export marketing and international business studies is also very well documented in the literature (e.g., Baldauf, Cravens and Wagner 2000; Myers 1999; Samiee and Roth 1992; Yang, Leone and Alden 1992). Consequently, top level managers were chosen, as they are the most knowledgeable on both the firm's domestic and export operations. Previous studies (e.g., Atuahene-Gima and Murray 2004; Conant, Mokwa and Varadarajan 1990; Li and Calantone 1998; Menon, Baradwaj and Howell 1996) have also found that senior managers, such as CEOs, vice presidents, and marketing managers, are reliable sources of information about marketing strategies. This assumption is also further supported through the pre-test interview as discussed in Section 4.3.1.

4.3   QUESTIONNAIRE DESIGN

This section describes the questionnaire design in detail, following procedures outlined by Churchill (1999) as presented in Figure 4.1. The conceptualisation and hypotheses developed from the literature, as described in Chapter 2 and 3 form the basis for the development of the questionnaire and the types of information sought in the questionnaire.

Figure 4.1: Procedure for Developing the Questionnaire

Aston University

Illustration removed for copyright restrictions

Source: Churchill (1999)

4.3.1 Information Sought

In total there are sixteen major areas of information sought from the respondents as listed in Figure 4.2.

Figure 4.2: Information Sought

Market-Oriented Behaviour
o Domestic Market-Oriented Behaviour
o Export Market-Oriented Behaviour
o Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations
Antecedents to Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations
o Mutual Dependence
o Interfunctional Interactions
o Interfunctional Strategic Symmetry
o Market Dominance
Environmental Turbulence
o Domestic Market Turbulence
o Export Market Turbulence
o Differences in Domestic and Export Market Environments
Business Performance
o Overall Sales Performance
o Overall Profit Performance
Organisational Variables
o Export Dependence
o Business Experience
o Firm Size
o Countries Exported

What follows are the details of the measures used in this study. The instruments were refined through confirmatory factor analysis (Gerbing and Anderson 1988), while for the newly developed scales, the initial purification procedures by Churchill (1999), DeVellis (1991), and Spector (1992) were utilised and are described in the next chapter. The final measures are, in some cases, quite different from those initially proposed. The summary of the scales used in the questionnaire is presented in Appendix 4-1

4.3.2 Market-Oriented Behaviour

In order to test hypotheses 7, 8, 10 and 11, separate measures of domestic market-oriented behaviour and export market-oriented behaviour are needed. A measure of differences in domestic and export market turbulence is required to test hypotheses 1, 2, 3, 4, 5, and 6.

4.3.2.1 Domestic Market-Oriented Behaviour

The conceptual domain of domestic market-oriented behaviour follows the one established by Jaworski and Kohli (1993) and Cadogan, Diamantopoulos and de Mortanges (1999) and includes all three major activities related to generation, dissemination and responsiveness to market intelligence for a firm's domestic market operations. The measures developed by Cadogan et al. (2001) were used, with minor changes made to reflect firms' UK business operations only.

Domestic intelligence generation includes all activities, which constitute the creation of domestic market intelligence (e.g., domestic market research, domestic customer needs) which are focused towards domestic customers, domestic competitors and domestic environments. The items were measured on a 7-point, six-item scale.

Domestic intelligence dissemination includes all activities involving the sharing of domestic market intelligence, as well as focusing on the sharing of information about domestic customers, domestic competitors and domestic environments. Domestic intelligence dissemination was measured on a 7-point, six-item scale.

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Figure 4.3: Scale Items for Domestic Market-Oriented Behaviour

Below is a list of statements other managers have made about marketing and sales issues relating to DOMESTIC (UK) MARKETING operations within their companies. Please use the following scale to indicate the extent to which the statements below describe the situation in your company.

In our UK market operations ...

Domestic Market Intelligence Generation

- we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our UK markets
- we constantly monitor our level of commitment and orientation to serving our UK customer needs
- we are slow to detect fundamental shifts in our industry in the UK (e.g., regulation, technology, economy)
- we periodically review the likely effect of changes in our industry (e.g., UK regulation, technology)
- we generate a lot of information in order to understand the forces which influence our UK customers' needs and preferences
- we do not generate enough reliable/relevant information concerning our competitors' activities in our UK markets

Domestic Market Intelligence Responsiveness

- if a major competitor were to launch an intensive campaign targeted at our UK customers, we would implement a response immediately
- we respond quickly to significant changes in our competitors' price structures in our UK markets
- we rapidly respond to competitive actions that threaten us in our UK markets
- we are quick to respond to important changes in our UK business environment (e.g., regulation, technology, economy)
- our strategy for competitive advantage in the UK is based on our understanding of customer needs

Domestic Market Intelligence Dissemination

- too much information concerning competitors in our UK markets is discarded before it reaches decision makers
- information which can influence the way we serve our UK customers takes forever to reach relevant personnel
- important information about our UK customers is often 'lost in the system'
- information about our competitors' activities in the UK market often reaches relevant personnel too late to be of any use
- important information concerning market trends (regulation, technology) is often discarded as it makes its way along the communication chain
- top management regularly discuss our UK competitors' strengths and strategies

Domestic intelligence responsiveness includes the design and implementation response to the domestic intelligence, which has been generated and disseminated earlier. These responses need to be directed towards domestic customers, domestic competitors and environmental changes affecting the business. Domestic intelligence responsiveness was

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measured on a 7-point, five-item scale. All the items used were anchored at 1 = "very strongly disagree" to 7 = "very strongly agree". The items in the domestic market-oriented behaviour scale are shown in Figure 4.3.

4.3.2.2 Export Market-Oriented Behaviour

The degree of firms' export market-oriented behaviour was measured using Cadogan et al.'s, (2001) shortened version of the Cadogan, Diamantopoulos and de Mortanges (1999) export market-oriented behaviour scale, which captures the three dimensions of export market intelligence generation, dissemination, and responsiveness respectively. The instrument has been found to have cross cultural validity and high internal reliability.

All items regarding the export market intelligence generation follow the discussion on domestic market intelligence generation discussed earlier. Likewise the export intelligence dissemination and export intelligence responsiveness follow the scales for domestic intelligence dissemination and domestic intelligence responsiveness respectively with specific focus on an export market application. Again all items used were anchored at 1 = "very disagree" to 7 = "very strongly agree". A complete scale of items used to assess export market-oriented behaviour is presented in Figure 4.4.

Figure 4.4: Scale Items for Export Market-Oriented Behaviour

Below is a list of statements other managers have made about marketing and sales issues relating to EXPORT MARKETING operations within their companies. Please use the following scale to indicate the extent to which the statements below describe the situation in your company.
In our EXPORT operations ...

Export Market Intelligence Generation
- we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our export markets
- we constantly monitor our level of commitment and orientation to serving export customer needs
- we are slow to detect fundamental shifts in our export environment (e.g., export regulation, technology, economy)
- we periodically review the likely effect of changes in our export environment (e.g., regulation, technology)
- we generate a lot of information in order to understand the forces which influence our overseas customers' needs and preferences
- we do not generate enough reliable/relevant information concerning our competitors' activities in our export markets

Export Market Intelligence Responsiveness
- if a major competitor were to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately
- we respond quickly to significant changes in our competitors' price structures in foreign markets
- we rapidly respond to competitive actions that threaten us in our export markets
- we are quick to respond to important changes in our export business environment (e.g., regulation, technology, economy)
- our export strategy for competitive advantage is based on our understanding of export customer needs

Export Market Intelligence Dissemination
- too much information concerning our export competitors is discarded before it reaches decision makers
- information which can influence the way we serve our export customers takes forever to reach export personnel
- important information about our export customers is often 'lost in the system'
- information about our export competitors' activities often reaches relevant personnel too late to be of any use
- important information concerning export market trends (regulation, technology) is often discarded as it makes its way along the communication chain
- top management regularly discuss export competitors' strengths and strategies

4.3.2.3 Measure for Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

In order to test hypothesis 1 through hypothesis 6, there was a need to capture the extent to which there are differences in market oriented behaviour levels across firms' domestic and export operations. One method to capture the differences would be indirectly, using the measures discussed in Sections 4.3.2.1 and 4.3.2.2 to elicit indirect comparisons of the domestic market-oriented behaviour and export market-oriented behaviour. Thus, in the context of differences in market oriented behaviour levels across firms' domestic and export operations, the score can be computed by subtracting domestic market-oriented behaviour from export market-oriented behaviour. This technique has been applied by a large number of researchers when measuring 'difference' construct (e.g., Ford, Walker and Churchill 1975; Siguaw, Brown and Widing 1994; Zeithaml 1982).

However, this technique has been subjected to strong criticism due to low reliability, lack of discriminant validity, correlation problems with at least with one of the constructs, and also, it may exhibit variance restriction (Peter, Churchill and Brown 1993). Furthermore, Johns (1981), states that "if respondents can describe existing organisational conditions and preferred organisational conditions, they can surely report directly whatever it is we think we measure when we calculate the difference between these descriptions" (p. 459). Peter, Churchill and Brown (1993) suggest that the direct operationalisation of difference constructs is highly applicable when "a single respondent provides both of the measures used in computing a difference score" (p. 661). They further argue that "the direct comparison operationalisation approach does no damage to a substantive theory that involves a construct consider differences rather than have the researcher calculate an arithmetic difference for them" (p. 661). Hence a decision was made to capture directly differences in market-oriented behaviour levels across firms' domestic and export operations, using a single measurement scale.

The newly developed scale of differences in market-oriented behaviour levels taps the differences in the levels of exporting organisations' market-oriented behaviour across their domestic and export operations. Based on psychometric theory, and following the

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recommendations from Churchill (1979), DeVellis (1991), Gerbing and Anderson (1988), Heise (1970), Peter, Churchill and Brown (1993) and Spector (1992), each item is developed to reflect a single latent construct. Thus each construct (e.g., intelligence generation) may have multiple indicators or items in the scale, and each latent variable is considered as the cause of each of the item score. Consequently, there is a presumed correlation between the item scores and the true score of the latent variable (DeVellis 1991). Thus, the domain of each component should be specified so that items generated from the scale actually reflect the construct under consideration (Churchill 1979).

In developing the items, several rules and recommendations from the literature were followed. The first stage was to generate a suitable items bank (Churchill 1979). Following recommendation from Spector (1992), several existing scales were modified and formed the starting point in writing the initial pool of items. The items were general so that they may be applied across different firm types. The items were also short, with no jargon to avoid potential confusion (DeVellis 1992).

Finally, following the suggestion from Peter, Churchill and Brown (1993), rating-type scale was used to measure differences in market-oriented behaviour levels across firms' domestic and export operations (c.f. Siguaw, Brown and Widing 1994). This is because the objective of the scale was to compare a firm's market oriented behaviour levels across its domestic and export operations. Other researchers, who have applied a similar technique when measuring difference score include Doney and Cannon (1997), Homburg and Rudolph (2001) and Tse and Wilton (1988).

The new measure for differences in market-oriented behaviour levels across firms' domestic and export operations follows the previous dimensions of market orientation behaviour (see Sethi 2000). It consists of three items to capture differences in the generation of market intelligence, five items to capture difference in the dissemination of market intelligence, and three items to capture differences in the market intelligence responsiveness. Initially, items were all anchored at "1 = Export Marketing Superior" and "7 = UK Marketing Superior", however, it was later reduced to a 6-point rating-type

differential scale after the pre-testing mail survey was completed (see discussion in Section 4.5.1). The scale was then transformed into a single difference in market-oriented behaviour levels across domestic and export operations scale and is discussed in Section 5.8.5. The full item description for this measure is presented in Figure 4.5.

Figure 4.5: Scale Item for Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

Please compare your UK and Export marketing operations on the following activities:

- Generating information on market trends
- Monitoring customer satisfaction
- Detecting fundamental environmental shifts
- Rapidly communicating important information
- Disseminating information to all levels in the business
- Communicating between employees
- Discussing customers' needs with other units
- Updating the business on important market changes
- Speed of market response
- Competitive response activities
- Overcoming competitive threats

4.3.3 Antecedents to Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

4.3.3.1 Interfunctional Interactions

In order to test hypothesis 2, a measure for interfunctional interactions is needed. The interfunctional interactions measure was adopted from Kahn (2000), where the four-item scale asked the respondent to evaluate the degree to which export department and other departments (non-export) hold formal meetings, and exchange memoranda, forms and reports. The scale ranged from 1 = "not at all" to 7 = "to an extreme extent". The scales used in the questionnaire are presented in Figure 4.6.

Figure 4.6: Scale Items for Interfunctional Interactions

> During the past 3 months, did the firm's Export function and the firm's other business functions (e.g., manufacturing, marketing/sales, etc) have:
> - Had formal meetings
> - Circulated memorandums
> - Circulated reports
> - Circulated forms

4.3.3.2 Interfunctional Strategic Symmetry

Interfunctional strategic symmetry scale is needed in order to test hypothesis 3. It is the term used to capture the concept of commonality of strategic types firms pursued in their domestic and export markets (c.f. Pearce 1997; Yan and Gray 1994). Interfunctional strategic symmetry was measured by comparing the strategy which firms adopt in their domestic and export markets. A firm will have strategic symmetry if it pursues a similar strategy type. On the contrary, strategic asymmetry is a situation when the strategy for domestic markets differs from that of the export markets. Therefore, information concerning firms' strategic types in their domestic and export markets are needed to determine whether firms have strategic symmetry or strategic asymmetry across their operations.

The strategy type was measured using Matsuno and Mentzer's (2000) strategy types of the four generic strategies consisting of paragraphical representations of the Miles and Snow (1978) typology. The descriptions of these strategy types were the same as those used by other scholars such as Lukas (1999), and McDaniel and Kolari (1987). Overall, respondents were asked questions regarding the strategic types adopted in their domestic markets and also in the firm's export markets. They were labelled Type1, Type 2, Type 3 and Type 4 to correspond to defender, prospector, analyser, and reactor strategy types respectively. Detailed measurements for strategy types are presented in Figure 4.7.

Figure 4.7: Scale items for Strategy Types

Please read the following four statements concerning types of business operations.

Type 1 (Defender)
This type of business unit attempts to locate and maintain a secure niche in a relatively stable product or service area. The business unit tends to offer a more limited range of products or services than its competitors, and it tries to protect its domain by offering higher quality, superior service, lower prices, and so forth. Often this business unit is not at the forefront of developments in the industry – it tends to ignore industry changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited area.

Type 2 (Prospector)
This type of business unit typically operates within a broad product-market domain that undergoes periodic redefinition. The business unit values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. This organisation responds rapidly to early signals concerning areas of opportunity, and these responses often lead to a new round of competitive actions. However, this business unit may not maintain market strength in all of the areas it enters.

Type 3 (Analyser)
This type of business unit attempts to maintain a stable, limited line of products or services while at the same time moving quickly to follow a carefully selected set of the more promising new developments in the industry. This organisation is seldom "first in" with new products and services. However, by carefully monitoring the actions of major competitors in areas compatible with its stable product-market base, this business unit can frequently be "second in" with a more cost-efficient product or service.

Type 4 (Reactor)
This type of business unit does not appear to have a consistent product-market orientation. This organisation is usually not as aggressive in maintaining established products and markets as some of its competitors, nor is it willing to take as many risks as other competitors. Rather, this type of business unit responds in those areas where it is forced to by environmental pressures.

- Which of these statements do you think best represent your UK operations?
  Our UK business type is closest to:

- Which of these statements do you think best represent your export operations?
  Our export business type is closest to:

4.3.3.3 Mutual Dependence

Measure for mutual dependence is required in order to test hypothesis 4. Mutual dependence was assessed from two angles; that is, domestic marketing dependence and export marketing dependence. The domestic marketing dependence scale was adapted from Fisher, Maltz and Jaworski's (1997) version of Ruekert and Walker's (1987a)

interdependence scale. The first part of the measure (3-items) captures domestic marketing dependence – the degree to which the export function relies on the domestic marketing function to accomplish export marketing objectives. The second part of the measure (3-items) captures export marketing dependence – the degree to which the domestic function relies on the export function to accomplish domestic marketing objectives. The scale's items used in the questionnaire are presented in Figure 4.8. The scale anchors ranged from 1 = "not at all" to 7 = "to an extreme extent".

Figure 4.8: Scales Items for Domestic Marketing Dependence and Export Marketing Dependence

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Domestic Marketing Dependence

For this firm to achieve its goals and responsibilities in its UK markets, how much does it rely on Export Marketing's ...
- Resources (e.g., personnel, equipment, information)
- Supports (e.g., advice or technical assistance)
- Outputs (e.g., new product designs)

Export Marketing Dependence

For this firm to achieve its goals and responsibilities in its export markets, how much does it rely on other (non-export focused) departments'...
- Resources (e.g., personnel, equipment, information)
- Supports (e.g., advice or technical assistance)
- Outputs (e.g., new product designs)

4.3.3.4 Market Dominance

In order to test hypothesis 5, a measure for market dominance is needed. The measure of market dominance is based on the firm's export dependence level - the degree to which a firm is "dependent upon export activity for its business" (Diamantapoulos and Inglis 1988. p. 53). In this study, export dependence refers to the degree to which either a firm's domestic market sales or export market sales dominate. The export dependence measurement is described in Section 4.3.6.1 and the development for market dominance measure is discussed in detail in section 5.7.7.

4.3.4 Environmental Turbulence

Domestic environmental turbulence and export environmental turbulence measures are needed to test hypotheses 10 and 11, while a newly developed measure of differences in domestic and export market environment is needed to test hypothesis 6.

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4.3.4.1 Domestic Market Turbulence

The environmental variable of interest is market turbulence. This variable has been used widely in prior market orientation studies. Market environmental turbulence measures have been used by, among others, Atuahene-Gima (1995), Cadogan et al. (2005), Diamantopoulos and Hart (1993), Greenley (1995a), Grewal and Tansuhaj (2001), Jaworski and Kohli (1993) and Slater and Narver (1994). In this study, the refined export market environmental turbulence scale of Jaworski and Kohli (1993) presented by Cadogan et al. (2001) was utilised with slight modification to reflect a firm's business environment specific to firms' domestic market. The scale appears to capture conceptually the various aspects of market turbulence and also has been demonstrated to be reliable. The domestic market turbulence scale examines the changes in domestic customer preferences and needs, demand, and market growth using a 3-item scale. All items were measured on a 7-point Likert scale, whereby respondents were asked to indicate the extent to which they agreed on a series of statements applied to the firm, with options that ranged from 1 = "not at all" to 7 = "to an extreme extent". The domestic market turbulence scale items are presented in Figure 4.9.

Figure 4.9: Scales Items for Domestic Market Turbulence and Export Market Turbulence

Domestic Market Turbulence

In our *UK markets* ...
- our customers' product preferences change quite a bit over time
- new customers tend to have product-related needs that are different from those of our existing customer
- our customers in the UK tend to look for new products all the time

Export Market Turbulence

In our *Export markets* ...
- our export customers' product preferences change quite a bit over time
- new export customers tend to have product-related needs that are different from those of our existing export customers
- our export customers tend to look for new products all the time

4.3.4.2 Export Market Turbulence

The export market turbulence measure in this study was also adopted from Cadogan et al. (2001). Similar to the domestic environmental turbulence, these items examine aspects of a firm's market environment specific to the export markets. The market environmental turbulence contains a 3-item scale, measured using 7 point Likert scales anchored at 1 = "not at all" to 7 = "to an extreme extent". The items used to measure export market turbulence is presented in Figure 4.9.

4.3.4.3 Measure for Differences in Domestic and Export Market Environments

A measure of differences in domestic and export market environments is required to test hypothesis 6. Following recommendation from, among others, Peter, Churchill and Brown (1993) and Sethi (2000), a semantic differential scale to measure differences in domestic and export market environments was developed. The procedures undertaken to develop this new measure were similar to the techniques used to develop differences in the market-oriented behaviour levels across firms' domestic and export operations scale, as described

in Section 4.3.3.3. The scale for measuring differences in market environment taps respondents' perception of the degree to which markets are more or less turbulent in the domestic versus the export market operations. Specifically, four items were used to capture the degree to which firms' domestic market dynamism differ vis-a-vis their export market dynamism. A full-scale of items for differences in domestic and export environments is presented in Figure 4.10.

Figure 4.10: Scale Items for Differences in Domestic and Export Market Environments

Relative to our customers in our UK market(s), Export customers have…								
Greater Predictability	1	2	3	4	5	6	7	Less Predictability
Greater Price Sensitivity	1	2	3	4	5	6	7	Less Price Sensitivity
Similar Buying Patterns	1	2	3	4	5	6	7	Different Buying Patterns
More Stable Product Preferences	1	2	3	4	5	6	7	Less Stable Product Preferences

4.3.5. Performance Measures

In order to test hypotheses 7, 8, 9, 10 and 11, a measure of overall sales performance is needed. In addition to overall sales performance, a measure of overall profit performance is required to test hypothesis 9. Performance must be operationalised and measured in order to assess the impact market-oriented behaviour has on performance. There has been strong empirical support suggesting a positive link between domestic and export market-oriented behaviour and various performance indicators (e.g., Cadogan, Diamantopoulos and Siguaw 2002; Greenley 1995a; Homburg and Pflesser 2000; Pelham 1997b; Ruekert 1992). In order to capture the complexity of the construct both subjective and objective measures were used, as they were found to have significant correlation (Dess and Robinson 1984; Hart and Banbury 1994; Pearce, Robbins and Robinson 1987).

Two final performance measures used in this study are overall sales performance and overall profit performance. In order to create these two measures, weighted performance measures operationalised at the domestic and export levels were undertaken. Overall sales

performance of a firm is a composite of its sales performance in its domestic markets and its sales performance in its export markets. Consequently, measures of domestic sales performance and export sales performance were used to collect required data. Similarly, overall profit performance was measured based on profit performance in firm's domestic and export markets, thus measures of domestic and export profit performance were collected.

The measures of export sales and export profit performance by Cadogan, Cui and Li (2003) were utilised for this study and were modified to extend to measure domestic sales performance, domestic profit performance, export sales performance and export profit performance. Specifically, the measures of domestic sales performance and export sales performance were used to create the overall sales performance. In addition, the relative importance of domestic sales and export sales as measured by domestic dependence and export dependence were incorporated in order to provide a weighted measure of overall sales performance. Thus a higher export dependence will give more weight to the export sales performance (and less weight to domestic sales performance) and lower export dependence will give more weight to domestic sales performance (and less weight to export sales performance) to the final measure of overall sales performance[2].

The measure of overall sales performance is generated by using the following algorithm:

1. Overall Sales Performance
    = [domestic dependence x domestic sales performance]
      + [export dependence x export sales performance]

Note:

- Export dependence varies from 0 to 1.
- Domestic dependence = 1 – export dependence

A similar technique was used to create the overall profit performance.

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[2] Higher export dependence means lower domestic dependence. Please see Section 4.3.6.1

2. Overall Profit Performance

        = [domestic dependence x domestic profit performance]

        + [export dependence x export profit performance]

The specific measures of domestic sales performance, domestic profit performance, export sales performance and export profit performance are briefly outlined as follows:

4.3.5.1 Domestic Sales Performance

Domestic sales performance was measured by asking respondents to indicate the absolute annual percentage growth in domestic sales over the previous three years. In order to control for industry effects, respondents were also asked to state the firm's average annual sales growth compared to the industry average, measured on ten-point scale, ranging from "1 = poor" to "10 = outstanding". The scale items are presented in Figure 4.11.

Figure 4:11: Scale Items for Domestic Sales Performance

1. Approximately, over the past 3 years, what has been the average annual growth/decline rate of your UK sales? (please enter a percentage figure in the relevant box).

        % Growth   [   ]   or   % Decline   [   ]

2. How does your average annual UK sales growth/decline compare to the industry average?

Poor	1	2	3	4	5	6	7	8	9	10	Outstanding

4.3.5.2 Domestic Profit Performance

Domestic profitability was measured by including three items, which asked respondents to indicate how profitable UK business operations have been over each of the last three years. Answers were provided on a 10-point scale ranging from "1 = very unprofitable" to "10 = very profitable" and is presented in Figure 4.12.

Figure 4:12: Scale Items for Domestic Profit Performance

Overall, how profitable have your UK business operations been over the past 3 years?

1999-2000	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2000-2001	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2001-2002	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable

4.3.5.3 Export Sales Performance

Similar to domestic sales performance, export sales performance was measured by including two items that asked respondents to (a) state the absolute annual percentage sales growth in export sales during the past three years, and to (b) indicate the firm's average annual sales growth compared to the industry average, measured on a ten-point scale, ranging from "1 = poor" to "10 = outstanding". The scale items used in the questionnaire are presented in Figure 4.13.

Figure 4:13: Scale Items for Export Sales Performance

1. Approximately, over the past 3 years, what has been the average annual growth/decline rate of your EXPORT SALES? (please enter a percentage figure in the relevant box).

% Growth [   ]   or   % Decline [   ]

2. How does your average annual EXPORT SALES growth/decline compare to the industry average?

Poor	1	2	3	4	5	6	7	8	9	10	Outstanding

4.3.5.4 Export Profit Performance

Export profit performance was measured by a three-item scale asking respondents to indicate how profitable their exporting operation has been over each of the past three years, measured on a 10-point scale, from "1 = very unprofitable" to "10 = very profitable". The questions used are presented in Figure 4.14.

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Figure 4:14: Scale Items for Export Profit Performance

Overall, how profitable has exporting been over the past 3 years?

1999-2000	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2000-2001	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2001-2002	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable

4.3.6 Organisational Characteristics

The firm characteristics of interest in this study include export dependence, business experience, firm size, and export destinations.

4.3.6.1 Export Dependence

The most widely used method in the exporting literature to capture export dependence is to measure a firm's degree of export involvement, that is, to determine the volume of export sales as a proportion of total sales (Diamantapoulos and Inglis 1988). Consequently, a single item was included asking respondents to indicate the percentage of total sales turnover derived from exports sales (Cadogan, Diamantopoulos and Siguaw 2002). Domestic dependence was measured by taking the percentage of domestic sales over total sales turnover, i.e., $(1 - \bar{e})$ where $\bar{e}$ is the firm's export dependence.

4.3.6.2 Business Experience

Business experience in this study refers to the knowledge and skills, which a firm has about its domestic and export markets. In order to capture this construct, two questions were formed: the length of time the firm has been in the business and also the length of time the firm has been exporting. This approach to the conceptualisation and measurement of business experience corresponds well with the literature (e.g., Cadogan, Diamantopoulos and Siguaw 2002; Kaleka, Piercy and Katsikeas 1997).

4.3.6.3 Firm Size

The most common approach to capture the size construct is to find out the number of employees and the total sales turnover of a firm (Heide 2003; Reid 1981). Specifically respondents were asked to state the number of full time employees and total sales turnover of the firm as an indication of size (Bodur 1994; Calof 1994; Cavusgil and Zou 1994).

4.3.6.4 Countries Export

In order to get the breadth of the exporting firms in the sample, respondents were asked to state the number of countries they export to. They were also requested to provide information on the number of regions they export to by ticking against the eight listed regions in the questionnaire.

4.3.7 Additional Variables

For research purposes outside the scope of this study, several additional items were included in the questionnaire. Two-sets of questions were included to measure cross-functional dispersion of influence on domestic marketing decisions and export marketing decisions (Krohmer, Homburg and Workman 2002). Based on Narver and Slater (1990), several control measures were included to measure relative size, relative cost, ease of entry and buyer power in both domestic and export markets. Finally, several additional firm performance measures were also included. These were a newly developed six-item performance comparison scale; a two-item firm growth performance, and a three-item firm profitability performance.

4.3.8 Response Form

There are various forms used in questionnaires such as open-ended answers, interval and ratio scale. Closed-ended answers were selected for several reasons. First, this approach reduces the possibility that questions will be misinterpreted (Huber and Power 1985).

Second, closed-ended answers are especially appropriate when responses must be compared across multiple respondents and when the questionnaire is administered by mail (Churchill 1999, Huber and Power 1985). Third, a closed-ended response format reduces the time taken to complete the questionnaire hence minimising respondent fatigue. Finally, it enables faster and less expensive data collection technique over open-ended responses (Malhotra and Birks 2000) To break monotony, for some questions, respondents were asked to fill the number into the boxes for each corresponding questions, while other questions required respondents to circle the number which best reflected their opinion..

Following the predominant approach in market orientation literature, most of the items in the questionnaire utilised interval or rating scale. This enables the use of parametric statistical analysis as argued by Borgatta and Bohrnstedt (1980, p. 160) : "given that most constructs are conceptualised as continuous and can be thought of as reasonably distributed in the population using a bell-shaped curve as a model, we see no reason not to analyse the manifest data using parametric statistics, even though they are imperfect interval-level scale". This view appears to receive a wide support among researchers in many fields including marketing.

The majority of the scales used in the questionnaire adopted a 7-point and a 10-point rating scale (see Churchill and Peter 1984). The literature suggests that questions with more response categories may be preferable to those with fewer categories, in that they produce measures that have high construct variance and low measurement error variance (Peter and Churchill 1986; Ping 2004). Some of the demographic measures used in the questionnaire employed the highest degree of measurement level in order to maximize the ability to undertake the most appropriate multivariate analysis techniques so that more meaningful interpretation of the findings can be made.

For the length of time a firm had been exporting, percentage of export sales to total turnover, and annual total sales turnover, age and experience measures for example, the answers were open-ended that prompted responses in the form of ratio data. Similarly, turnover, firm size and number of countries exports to were all measured by open-ended

ratio scales. Finally, questions pertaining to industry type and number of regions the firm export to the dichotomous questions technique was used, where respondent was asked to tick on the appropriate boxes on the industry the firm belong to. Where it was practically not possible to use ratio scale (e.g., due to the sensitivity involved), interval type responses were sought. Finally, questions on strategy types used a four categorical measure as had been used in prior research (see Lukas 1999; Matsuno and Mentzer 2000)

4.3.9   Question Sequence and Physical Characteristics

The following section provides details on issues related to the question sequence and physical characteristics of the survey instrument. The layout of the self-administered questionnaire may be critical to the success of the study (Churchill 1999; Malhorta and Birks 2000). There are several rules of thumb that need to be followed regarding question sequence. Churchill (1999) suggests that the initial questions need to be interesting, while Tull and Hawkins (1993) note that the first questions also need to be simple and objective. Furthermore, Malhorta and Birks (2000) recommend that all questions be divided into several sections, and at the same time the questionnaire should move smoothly from one section to another, as sudden shifts in topic tend to confuse respondents. Consequently, the questionnaire was developed based on these recommendations[3].

Section One was entitled "Information Collection and Communication". This section was divided into two sub-sections and contained the measures of domestic and export market-oriented behaviors. The first questions in the instrument were about export intelligence generation activities in a firm. These opening questions appear simple, interesting and opinion-based and did not require much effort of the respondents. The second sets of questions were the responsiveness items followed by export intelligence dissemination items. Next were questions related to the domestic market-oriented activities; generation of domestic market intelligence, domestic intelligence responsiveness and domestic intelligence dissemination.

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[3] A number of additional constructs, which were not part of the present study, were included in this final version of the questionnaire. These additional constructs and their scales were not discussed in the context of this section.

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In order to break the monotony of the response, Section Two contained the strategy types in the export and domestic markets scales and was entitled "About Your Company's Systems". Section Three entitled "Export and Domestic Marketing Operations" consisted of several sub-sections and contained measures of differences in market-oriented behaviour levels acoss firm's domestic and export operations, domestic dependence, export dependence and interfunctional interactions.

Section Four entitled "Business Experience" contained three sub-sections items regarding a firm's domestic environment, export environment, and differences in domestic and export market environments items. The last section, Section Five consisted of some basic questions about the firm and classification variables. It also contained the most difficult and highly sensitive performance questions. These questions were placed in the last section to minimize negative perception that respondents may have while filling in the answers (Churchill 1999). The performance section was divided into two sub-sections in order to measure a firm's performance in its domestic markets and export markets.

To assist the respondents in competing the questions accurately, clear instruction was included at the beginning of all relevant sections with the exception of Section Five, where instructions were provided only when necessary or in the question itself. Lastly, respondents were thanked for their contribution to the study.

The physical layout of the questionnaire is also important to attract respondent's attention and thus helps to increase accuracy and also replies (Churchill 1999). Considering that the respondents would be among top management level executive, questionnaires need to appear interesting and short, as empirical evidence has shown that business people appear to be more sensitive to the length of the questionnaire than the general population (Jobber and Saunders 1993). As the questions cannot be reduced to make the questionnaire shorter, it was decided that the questionnaire be printed on both sides of the paper and designed as a booklet.

This resulted in the initial nine-page questionnaire inclusive of a cover page and all measures needed to answer the research objectives of the present study. As the plan was to turn it into a six-page double-sided booklet, an additional three pages were still available. A nine-page long questionnaire cannot be printed in a booklet form as it requires the pages to be in multiples of four or a three-page double sided A3 size paper. It was then decided to add some additional measures outside the context of this study to fill the three blank pages, as reducing the font size or cutting some measures were impossible in order to reduce the number of pages into eight. Furthermore, several layout and presentation changes were also made to increase clarity and ease of answering the questions.

4.4   PRE-TESTING

A thorough pre-test of the research instrument was conducted before administering the questionnaire to the final sample. Pre-testing helps to determine the potential effectiveness of the research instruments and also to identify fundamental problems (Diamantopoulos, Reynolds and Schlegelmilch 1994). Following Churchill (1999) and Hunt, Sparkman and Wilcox (1982), the questionnaire was first pre-tested through a personal interview. Personal interview pre-test can provide information on problematic questions, confusion, and formatting issues. Churchill (1999) also recommends that instruments need to be tested using the actual method to be adopted in the main study. Hence, it was decided that the mail pre-test would also be conducted in order to finalize the research instruments and also to get feedback on the response rate (Diamantopoulos, Reynolds and Schlegelmilch 1994).

4.4.1   Personal Interview Pre-tests

The personal interview pre-tests serve a two pronged strategy. The first is to detect fundamental problems as outlined above. The second strategy is to help ascertain the respondent for the study. The first stage of the pre-test in this study involved a review of the questionnaire by six colleagues who were doing doctoral research in various fields at

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Aston Business School. Their comments were mostly related to the general layout, typo errors, and problems in understanding the general instructions. After taking into account their suggestions, the questionnaire was later further reviewed by four academics who were experts in measure development to ensure clarity and meaningfulness of the items. Apart from the newly measured items that required stringent evaluation, they also identified several inadequate items, poorly worded questions, and also made several suggestions regarding the clarity and ambiguity of questions and the overall questionnaire design.

For stage two of the process, the questionnaire was pre-tested through interviews with several managers from the exporting organisations. At the onset of the research, it was decided that single informant technique would be utilised for this research. As the information required for the study involved detailed information about both the domestic and export aspects of operations, the single informant for this study should be knowledgeable about a firm's operations in both markets (see Section 4.2.3 for details). Hence it was decided that the top level management including general managers, CEOs, Presidents, marketing and/or sales directors or managers, export directors or managers and senior marketing executives, would be suitable subjects for this pre-test process.

Several companies were contacted and attempts were made to get the agreement of three senior managers from one organisation to participate in the interview. Of 32 firms contacted by telephone, five very senior managers including managing directors, general managers, and CEOs, three marketing directors/managers, and six export directors/managers from eight organisations agreed to participate. However, there were only two companies where all three senior managers which form the 'triad' (i.e., general managers, marketing managers/directors and export director/manager) participated in the interview.

In all eight other interviews, the participants were either a combination of two managers from three different positions, or a single informant from the participative organisations. Most of the interviews lasted for about 30 to 45 minutes as originally agreed. To make the

most from the interviews, the respondents were given a complete set of the questionnaire for a quick review, however, they were asked to give feedback only on selected parts of the questionnaires so that at the end of all 14 interviews, the entire questionnaire was fully covered for further refinement. Only two managers were able to complete the review of the whole questionnaire. The use of a single respondent planned for the actual mail survey was also supported from this field interview. It was established that top level managers were found to be able to provide sound knowledge about a firm's domestic and export marketing activities as well as other information deem necessary to answer the questionnaire.

All of the interviewees had expressed interest in the project but also commented that the questionnaire was too long. However, there was nothing that could be done to reduce the length of the questionnaire without compromising the quality of the data collected. This resulted in several changes that were made to the questionnaire. The cover title of the questionnaire was changed from "Market Orientation: A Study of British Firms" to "Market Orientation: A Study of British Exporters". Some adjustments were also made on some of the instructions at the beginning of the sections, to make them short and understandable. It was also decided to include a specific beginning of sentences such as "in our UK markets" and "in our EXPORT markets" in order to help respondents refocus their attention to a particular market while answering the questions.

In addition, when respondents were asked to compare the UK and export marketing operations (Section 3, Question 1), an "about the same" option was included. Two managers were drawn to this option despite having a vast difference of marketing activities in those two markets[4]. This observation was noted and particular attention would be given to these items during the mail pre-test later.

Several changes were also made to the layout of the questionnaire. Adjustments were made regarding the spacing at the top and bottom. Spelling errors, double-barrelled and

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[4] This was established when their answers to the domestic market-oriented behaviour questions were in stark contrast with that of export market-oriented behaviour.

leading questions were corrected. As the questionnaire was in a booklet format, the alignment between the two facing pages was also made to enhance a professional look of the questionnaire.

4.4.2 Mail Survey Pre-test

The questionnaire was revised on completion of the second stage of pre-testing. The revised questionnaire used in the next pre-test phase of the study is shown in Appendix 4-2. The mail pilot pre-test was conducted to identify any administration problems, and also to provide an indication of the response rate for the main survey. In order to get optimal results, the pre-testing sample used the same sample frame as the main survey so as to be representative of the actual target population (Hunt, Sparkman and Wilcox 1982).

For this study, the population was defined as all British exporters who must also have domestic sales. However, the fieldwork from the first stage of the pre-test shows that some of the items from the questionnaire were not relevant to smaller sized firms. For firms which were too small in size (in terms of the number of employees – let's say two employees), questions regarding market intelligence dissemination, and interfunctional interactions were not applicable.

4.4.3 Response Enhancement

Careful attention was paid to methods for increasing the study's response rate, as a key problem with industrial mail survey lies in the presumed bias in the data obtained due to low response rate they achieve (Erdogan and Baker 2002; Jobber, Saunders and Mitchell 2004). The key problem with low response rate is the presence of non-response bias; a situation where non-respondents may differ from respondents.

In this mail pre-testing where possible, recommendations from the literature were adopted. The cover letter accompanying the questionnaire used university stationary in order to increase the credibility of the project and thus the response rate (Bruvold and Comer

1988). The letter was personalised, addressing the respondent by name and title (Diamantopoulos and Schlegelmilch 1996). The cover letter also emphasized the importance of the respondents' answers could really make a difference between the success and failure of the study and the researcher's doctoral thesis (Diamantopoulos and Schlegelmilch 1996). The letter guaranteed complete confidentiality throughout the entire data collection and processing of the data. An additional step was taken to try to ensure anonymity of respondents who returned the questionnaire with their business cards by separating the card from the questionnaire. As for the email addresses, they were deleted after copying them onto a master list and all were done without leaving any single way of tracing back to the source to the extent that even the researcher could not trace a questionnaire to any one respondent.

Both the researcher and thesis supervisor, Dr John Cadogan, also personally signed each letter. This was done to counter the possible effect of foreign-sounding name of the researcher that has previously been found to affect the industrial mail response significantly (Chawla and Nataraajan 1994). The mail shot used a first class stamp as it was found to be effective (Karimabadi and Kluegel 1991) and a self-address freepost (second class) return envelope was also provided for the return of the questionnaire. Monetary incentives were not offered, nevertheless, each respondent was offered a summary copy of the findings if they were to enclose their business cards. Please refer to Appendix 4-3 for a copy of the cover letter.

In this pre-testing, it was decided that respondents were not pre-notified and also were not sent a follow up reminder following the mail shot. This was done in order to get some rough estimate of the worst possible response rate, bearing in mind that the actual data collection would certainly utilise substantially improved techniques in order to generate better response rate as suggested in the literature.

4.4.4 Sample Frame Selection

The population of interest for this study is the UK exporting organisations. Sample frame selection was based on several criteria. Firstly, it was necessary that the sample frame was comprehensive enough to be representative of British exporting organisations. Secondly, to achieve a good response rate, it was desirable to personalize each letter. Thirdly, the database also needs to contain current and update information so that each questionnaire could be sent to the right individual, title and organisation.

Fourthly, the database must be able to provide information regarding the number of employees. In this study, it is important that the selected firms have 'large enough' employees, so that several interfunctional constructs used in this study can be captured accurately. Nevertheless, it is also argued that larger firms possess more resources (Katsikeas and Morgan 1994), hence are more likely to engage in market-oriented activities (Liu 1995). Following Cadogan et al. (2001) and Cadogan Cui and Li (2003), it was decided that firms with more than 50 employees would be chosen as study samples.

Finally, given the size of the required sample, a computerized database allowing printing of personalized names, address labels on letters and on the envelopes was needed. Considering the length of the questionnaire and position of the respondents, it was expected that a response rate of about 20% could be achieved, and thus to achieve 200 useable responses, a minimum sample of about 1000 exporting organisations would be required.

There are several business directories and market research agencies which are providers of company listings that can be utilised for the study. Among them are Dun & Bradstreet, Financial Times Business List, British Exporters, Kompass Register CD database, Kompass British Exports, and others. However, the final choice was between Dun & Bradstreet and Kompass Register CD database, which meet the entire requirements listed above. For practical reasons, Kompass Register CD database was selected as it was made

available for this research by a colleague who had acquired the database for use in a different study using a different target of business profiles. This database listed 82,000 companies along with the names of senior management, and the data is updated every six months which should provide current information. There were 12,810 exporters on the list, however only 1,779 exporters had more than 50 employees.

A randomly selected sample of 100 British exporters with 50 or more employees was selected from the Kompass database of British businesses. The questionnaire was personally addressed to the general managers, the CEO, or the marketing director/manager as discussed in Section 4.2.3 earlier. Three weeks after the mailing, eight questionnaires were returned undelivered due to wrong addresses or respondents could not be reached. Altogether, seventeen questionnaires were returned, of which three were returned with letters explaining that they were not exporters, two letters saying that company policy prohibits participation in research, another four with missing important data, leaving fully usable responses to eight. Therefore the eight useable responses constitute 8.9% of initial response rate [i.e., 8/(100 − 3 − 8)].

Twelve organisations were randomly chosen for the follow up to determine reasons for not replying to the questionnaire. They were contacted by telephone and selection was made from the original initial pool of sample. These managers were asked a number of questions regarding their participation. However, of the twelve potential respondents, one manager claimed to have returned the questionnaire, and was replaced with another firm following the same procedures described earlier. Two firms could not be contacted due to incorrect contact details, one manager had left the company, two firms were no longer exporting, and six managers had refused to complete the questionnaire because of various reasons such as company policy, time constraints, no questionnaire received or had misplaced the questionnaire. More surprisingly, it was found that two firms had no domestic sales and hence were ineligible to participate in the study. Thus the revised maximum eligible firms from this stage are 82 [i.e., 89 − (2 + 1 + 2 + 2)] thus providing the revised response rate to 9.8% [i.e., 8/82]

The personal calls did prove useful in determining potential difficulties in administering the questionnaire. It also helped to get some picture about the *minimum* response rate if the same administrative method were to be adopted in the main survey. It was also found that the ineligible firms present a problem in the database. Analysis of these calls and also from the returns, suggest changes to be made in particular to the procedure of the questionnaire administration process, and these are discussed in the following section.

4.5   MAIN SAMPLE

4.5.1   Further Questionnaire Refinement

The questionnaire was further revised on completion of the pilot mail survey. As was shown in the interview pre-test, it was found that respondents were drawn to the "about the same" middle answer in the market orientation difference scale. This is supported in the literature where the middle response alternative has been found to affect findings significantly when respondents who feel ambivalent are drawn to it (Bishop 1987). Given the unnecessary bias that such a response may have induced, the "about the same" category was dropped from the scale, turning it into a six-point rating scale with new anchors from at 1 = "Export Marketing Superior" to 6 = "UK Marketing Superior".

Some changes related to questions about the sales growth rate (in export, domestic and overall markets) were also made. Many respondents simply put the absolute figure of percentage but failed to answer the second part of the question of whether the number represents a sales growth or decline. Hence, the question was modified slightly where the respondent needed to fill in a percentage figure in either a growth or decline box. Therefore changes were made in all sales growth performance items for domestic, export and overall markets. Furthermore, in order to emphasize the confidentiality of their answers, a short note "Remember: your responses are confidential" (with the word 'confidential' in bold) was added under the first heading of the performance measure.

For the questions on Domestic Marketing Dependence and Export Marketing Dependence, the bipolar anchors read "Very Little" and "Very Much" were changed to "Not at All" and "To an Extreme Extent". Questions about the responsibility of respondents (Robertson, Eliashberg and Rymon 1995) in domestic and export operations were deleted due to the screening method adopted in identifying respondents from the study. Due to a large number of respondents who were interested to receive a summary report of the findings, it was decided that in the final questionnaire, respondents were asked to supply their email address instead of the normal business card so that a softcopy of the report could be sent to them. Several changes were also made to enhance the professional look of the questionnaire. As a result, the revised instrument consists of a 12-page questionnaire, attractive layout, easy to read, and well spaced. A copy of the final version of the questionnaire is provided in Appendix 4-4.

4.5.2 Sample Frame Selection and Sample Administration

Given the large number of constructs and also the measures development objective in this study, it was important to have a reasonable number of cases in order to ensure that there would be sufficient power in the statistical analysis. The literature highlights that at least 100 to 200 cases are necessary to adequately assess the reliability and validity of the measures (Spector 1992).

Subsequently, the actual procedure of administrating the questionnaire also required modification. More importantly, the implicit assumption that all exporters must have domestic sales was wrong. The exporters database generated from the sampling frame does not provide this critical information about the domestic sales of these exporters[5]. The exporting firm must also have a portion of UK sales to be eligible to participate in this study. This crucial information could only be obtained through some verification from the company identified for this study. Additionally, it was absolutely critical to identify responding firms due to a high level of ineligibility and also to request cooperation and

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[5] Dun & Bradstreet (another database finalised for use in this study) also does not have this information.

commitment (Schegelmilch and Diamantopoulos 1991). Furthermore, of all the pre-notification methods available, telephone pre-notification seems to be the most effective way and was found to increase the response rate between 14% to 16.2% (Haggett and Mitchell 1994; Jobber, Allen and Oakland 1985)

After the mail pre-testing, there were 1,679 exporters left from the sample frame. Assuming that about 18% of the firms were ineligible as was shown in the pre-testing stage, the final sample of the firms was left with only 1,376 firms. With a pre-test response rate of roughly 10%, the returned questionnaire would be 138 which is far below the minimum required number needed for rigorous data analysis. Therefore, it was decided that pre-notified personal calls would be employed in this study in order to identify eligible firms while at the same time secure a sample large enough for the purpose of the study. The high cost associated with this method would be compensated by using a reminder postcard only, although prior literature has recommended sending a second mailing of questionnaire to improve return rate.

However, the drawback of using this method again lies with the foreign-sound-name associated with the researcher (Chawla and Nataraajan 1994). Due to resource constraints, calls had to be made by the researcher (c.f Lukas and Ferrell 2000), and despite suggestions that the researcher or caller to adopt an English-Christian-sounding name when identifying him/herself (Chawla and Nataraajan 1994), this suggestion could not be taken any further due to the fact that English is also not the native language of the researcher. Towards this end, a more enhanced personal appeal was made to all potential respondents about the importance of the study to the business community in general and also the implications it may have on the success of the researcher's PhD. The respondents were also personally assured of the confidentiality and anonymity of their participation in the study.

Therefore for the main survey, all organisations from the database were contacted by telephone in order to obtain consent and participation in the survey (see Lukas and Ferrell 2000). The questionnaire was sent using first class mail to the respondents on the day the

agreement was secured. Finally a reminder postcard was sent to *all* respondents seven day
after the initial mailing.

4.5.3   Response Rate Enhancement

Several steps were taken to maximise the response rate at this crucial stage. Most of these
steps were also employed during the pre-testing stage, and are discussed in detail in
Section 4.4.4. As discussed earlier, two additional steps were taken to increase the
response rate (i.e., telephone pre-notification and follow-up postcard). The literature also
suggests that follow-ups are important in encouraging response (Diamantopoulos and
Schlegelmilch 1996; Harvey 1987). Accordingly, seven days after the initial questionnaire
mailing, all respondents were sent a reminder postcard. The reminder postcard included
the contact number of the thesis supervisor Dr John Cadogan (see Appendix 4-5). This
should enhance the credibility of the research project (Chawla and Nataraajan 1994). Due
to the more personalized contact between the researcher and the potential respondent, and
also due to the immediate response that needs to be taken once cooperation had been
obtained, the cover letter sent to the respondent was only signed by the researcher alone
(see Appendix 4-6)

An overview of the recommended methods to increase response rate is given in Figure
4.15. The list includes suggestions from Chawla and Nataraajan (1994), Churchill (1999),
Jobber and O'Reilley (1995) and Diamantopoulos and Schlegelmilch (1996).

Figure 4.15: Factors Influencing Response Rate

Telephone pre-notification*
Follow-ups*
Monetary incentives
Non-monetary gifts*
English-Christian-sounding name
Faculty with English-Christian-sounding name*
Stamped address return envelope*
Second mailing of the questionnaire and letter
Assurance of anonymity and confidentiality*
Appeals (e.g., egoistic, social utility, altruism)*
Personalisation (e.g., hand-signed, or personal cover letter)*
Interesting topic and not sensitive or controversial in nature*
Simple questions and layout*
Specification of return deadline
Questionnaire shorter than or equal to 4 pages

* Methods used in some form in the present study

4.5.4 Response Analysis

4.5.4.1 Response Rate

A total of 277 sets of questionnaire were returned, including 225 usable and 52 non-usable replies. Of the latter, 18 managers returned the questionnaire uncompleted or with excessive missing data. A large proportion of the firms (23) were found to be ineligible to participate. Reasons for ineligibility were quite similar to those in the pilot study, which include the firm had not conducted export or domestic market oriented activities, the firms' export was conducted through agents, firms were no longer exporting, and/or firm had no domestic sales.

In total 642 respondents did not return the questionnaire despite having agreed to participate[6]. Due to resource constraints, the reasons for non-participating could not be

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[6] Despite attempts to screen respondents in the pre-notification phone calls, some respondents simply cut short the conversation and requested to review the questionnaire first before deciding on their next action. The setback of this method was that a large number of respondents were automatically considered eligible

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ascertained. However, random calls to non-participating respondents were made to 30 organisations, following the same procedure used in the pre-testing. As the participating firms could not be traced, firms that claimed they had responded to the questionnaire were replaced through random selection, until all 30 organisations were contacted. Table 4.1 details the reasons for non-response. Overall, it was deemed that the reasons are well accepted in the literature and gave no cause for concern with respect to non-response bias in this study (see Morgan, Kaleka and Katsikeas 2004).

As outlined in Figure 4.16, the effective response rate achieved in this study was 28.4% (225/792*100). This calculation was based on those who were contacted, eligible and agreed to participate in the study at the pre-notification phase. Despite some setbacks of the adopted method used in this study (e.g., name of the sender, and the person who administered the call) the response rate achieved in this study is indeed satisfactory. In fact, it is substantially higher than other research works which studied complex organisational phenomena and targeted high level managers (Diamantopoulos and Schlegelmilch 1996; Homburg and Pflesser 2000).

Table 4.1: Reasons for Non-response

Reason	Number of Firms
No time to fill in questionnaire/questionnaire too long	13
Passed on to someone else and lost in system	1
Company policy not to fill in questionnaires	3
Claimed no questionnaire received	1
Felt company was too small for survey to be applicable	2
Forgot about it	1
Not interested	2
Ineligible to participate	7

and were sent the questionnaires but without strong commitment to participate in the study. In most of the cases, not much information could be extracted from these managers and hence their company status could not be ascertained at this stage. These respondents were included in the calculation of response rate because they were given the opportunity to participate in the study.

Furthermore, the response rate achieved in the present study is comparable to other market orientation studies though not among the best ones. For example Narver and Slater (1990) report 80% response rate; Bhuian (1998) 77%; Atuahene-Gima (1995a) 47.7%, Pelham (2000) 23%; Rose and Shoham (2002) 15.7%; and Cadogan, Diamantopolous and Siguaw (2002) ranging between 22% and 34%. It should be noted that mail administration techniques and method of calculating response rate vary among studies and therefore caution should be made when comparing the response rate from various studies[7]. The mail administration technique utilised in the present study was very close to Lukas and Ferrell (2000) which generated a response rate of 34%[8].

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[7] As an example, Homburg and Pflesser's (2000) reported response rate of 15.7% was based on 173 returned questionnaire from a sample of 1100. However, due to missing data, only 160 useable responses were utilised for data analysis leaving the actual (unreported) response rate of 14.5% (160/1100). If Homburg and Pflesser's (2000) response rate calculation was used in this study, the response rate would be 30.2% (277/918).

[8] Lukas and Ferrell (2000) had used eight professional telemarketers (hence the use of more common American-sounding names was possible). They also sent a second copy of the questionnaire to non-respondents after 14 days. Due to resource constraints, these techniques were not used in the present study.

Figure 4.16: Response Analysis – Main Study

TELEPHONE PRE-NOTIFICATION PHASE	MAIL PHASE	FOLLOW UP TELEPHONE PHASE	SUMMARY

TELEPHONE PRE-NOTIFICATION PHASE — **MAIL PHASE** — **FOLLOW UP TELEPHONE PHASE**

1679 Sample Frame

207 Not Contacted

252 Non Participants

304 Ineligible to Participate

918 Agreed to Participate

641 No Mail Response

277 Returned Responses

30 Contacted

611 Not Contacted

7 Ineligible to participate

23 Declined to participate

23 Ineligible to participate

18 Declined to participate

11 Incomplete

225 Completed Questionnaires

SUMMARY

The reasons for lack of contact were varied and included respondents being abroad, on leave and in meetings. Because these respondents were never given the opportunity to participate in the study they were not included in the response rate calculations.

Potential respondents refused to participate; respondent status and company characteristics could not be determined. They were not included in the response rate calculations because they did not receive the questionnaire.

Therefore the total number of ineligible respondents was $304 + 7 + 23 = 334$.

Therefore $23 + 18 = 41$ respondents declined to participate after receiving the questionnaires.

The remaining 622 (i.e., 611 respondents who did not respond by mail and 11 incomplete response) were assumed to have declined to participate.

Total number of respondents was $1679 - [(206 \text{ not contacted}) - (252 \text{ non participants}) - (334 \text{ ineligible})] = 792$. Therefore the effective response rate was $(225/792*100) = 28.4\%$

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4.5.4.2 Non Response Analysis

Non-response bias occurs when respondents differ from non-respondents on the characteristics of interest (Malhotra and Birks 2000). In order to determine whether the sample suffers from non-response bias, an extrapolation strategy was employed. It has been suggested that "[persons] who respond in later waves are assumed to have responded because of increased stimulus and are expected to be similar to non-respondents" thus non-respondents have similar characteristics more like late respondents than the early repliers (Amstrong and Overton 1977, p. 397). Therefore, a series of independent t-tests were performed on four main firms characteristics and eight variables representing measures used in the final model.

The process of sending out questionnaires and follow up postcards took a period of several weeks (questionnaires were sent in several batches). Due to anonymity of the responses, the following strategies were employed to distinguish between the early and late respondents. As discussed earlier, the questionnaires were posted on the day the agreement from the potential respondents had been secured. Questionnaires were sent using first class stamps while the postcard reminders, sent six days after questionnaires were sent out, and the return envelopes enclosed in the survey packet used a second-class stamp. Using Armstrong and Overton (1977) and Churchill (1999), late respondents were defined as those who replied after receiving the reminder postcards. Therefore those that came back on the first 15th day of the data collection process were considered as early respondents. Furthermore, as there was no single trace left in the questionnaire, the late repliers were identified as those who had replied and where their responses were received 15 days after the last questionnaire were sent out. Altogether the sample sizes for the early respondents and late respondents were 36 and 21 respectively.

The results of the t-tests performed across all variables of interests are shown in Table 4.2. As can be seen, at 5% significant level across these variables, no significant differences were found across early and late respondents. Thus, following Armstrong and Overton (1977) and Churchill (1999), it can be concluded that the sample does not suffer from response bias.

Table 4.2: Response Bias Analysis

Variable	Mean of Early Responses (N = 36)	Mean of Late Responses (N = 21)	Sig of t-value
Domestic Market-Oriented Behaviour	5.070	5.053	0.951
Export Market-Oriented Behaviour	4.503	4.557	0.847
Domestic Market Turbulence	3.972	4.635	0.071
Export Market Turbulence	3.454	3.667	0.506
Differences in Domestic and Export Market Environments	3.648	3.381	0.313
Domestic Marketing Dependence	3.093	3.476	0.409
Export Marketing Dependence	5.019	5.143	0.734
Interfunctional Interactions	4.528	4.321	0.575
Number of employees	530.17	247.95	0.353
Total Sales Turnover	86.46	24.08	0.160
Export Experience	29.89	40.75	0.158
Number of Countries Served	23.63	34.78	0.091

4.6 CHAPTER SUMMARY

This chapter provides a detailed description of the method employed in this study. Specifically, a mail survey of British exporters was employed in the study. A measuring instrument utilised in the study was developed and refined through a series of rigorous pre-testing. The questionnaires were sent to 918 organisations after telephone pre-notifications, achieving 277 returned questionnaires and a total of 225 useable response rate or 28.4%. A comparison of early and late respondents was done and non-response bias did not appear to be a problem. The next two chapters highlight the main findings from these useable responses.

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CHAPTER 5

DESCRIPTIVE ANALYSIS AND SCALES DEVELOPMENT

5.1 INTRODUCTION

This chapter is the first of two chapters which present the analysis and findings of the data obtained from the main study. It highlights two important sections: descriptive analysis of the sample, and measures development and assessment. The descriptive component examines the patterns exhibited by the responding firms in this study. The descriptive analysis is necessary for several important reasons. First, the analysis for model testing in this research requires the use of multivariate analysis, therefore, the identification of distinct pattern and characteristics of variables under investigations is needed. This process is deemed necessary prior to taking on more rigorous analysis in order to identify any violation of test assumptions (e.g., multicollinearity) and help in interpretation of the results. Second, the analysis helps to provide general understanding of the measures and the pattern of responses, thus providing further insights into the model testing components in this study.

The measure development and assessment section of this chapter describes the development of summated rating scales for all measures used in this study. Measures were first subjected to purification, and then assessed for their unidimensionality, reliability and validity using established procedures from the measure development literature (e.g., Churchill 1979; DeVellis 1991; Gerbing and Anderson 1988; Spector 1992).

The first section of this chapter describes the respondents' profile and other characteristics of firms. This is followed by a discussion on the measure development and assessment using established procedures. The development of differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments measures were first discussed. This is followed by the construction of other scales used in this study. Finally, the last

section describes the characteristics of the scale developed from the procedures used in this study.

5.2 RESPONDENTS' PROFILE

The descriptive analysis involves an examination of several patterns exhibited by the variables of interest in the data set which include characteristics, business experience, export marketing dependence, export destination diversity, and firms' business strategy.

5.2.1 Respondents' Status

Figure 5.1 shows the position of the respondents within the organisations. As can be seen from Table 5.1 more than half of the respondents identified themselves as managing director, while CEOs and general managers constitute about 10% of the respondent. There were four missing values for this item.

Table 5.1: Profile of the Respondents - Summary Statistics

Respondent	Frequency (N = 221)	%	Cumulative Percent
Managing Director	117	52.0	52.9
General Manager	7	3.1	64.7
Chief Executive Officer	14	6.2	85.1
Sales/Marketing Director/Manager	45	20.0	88.2
Export Director/Manager	26	11.6	94.6
Other Managers	12	5.3	100.0

5.2.2 Firm Size

Firm size is measured by total sales turnover and the number of full time employees. The distribution is positively skewed ranging from £1 million to £2,000 million with a mean of £80.03 million and the standard deviation was £198,495,000. More than three-quarter of the responding firms reported a turnover of less than the mean value; the

median was only £20,000,000. Figure 5.1 provides the cumulative distribution of the firm size variable measured by the total sales turnover. There were three respondents who did not answer the question.

Figure 5.1: Annual Turnover of Firm as Cumulative Percent
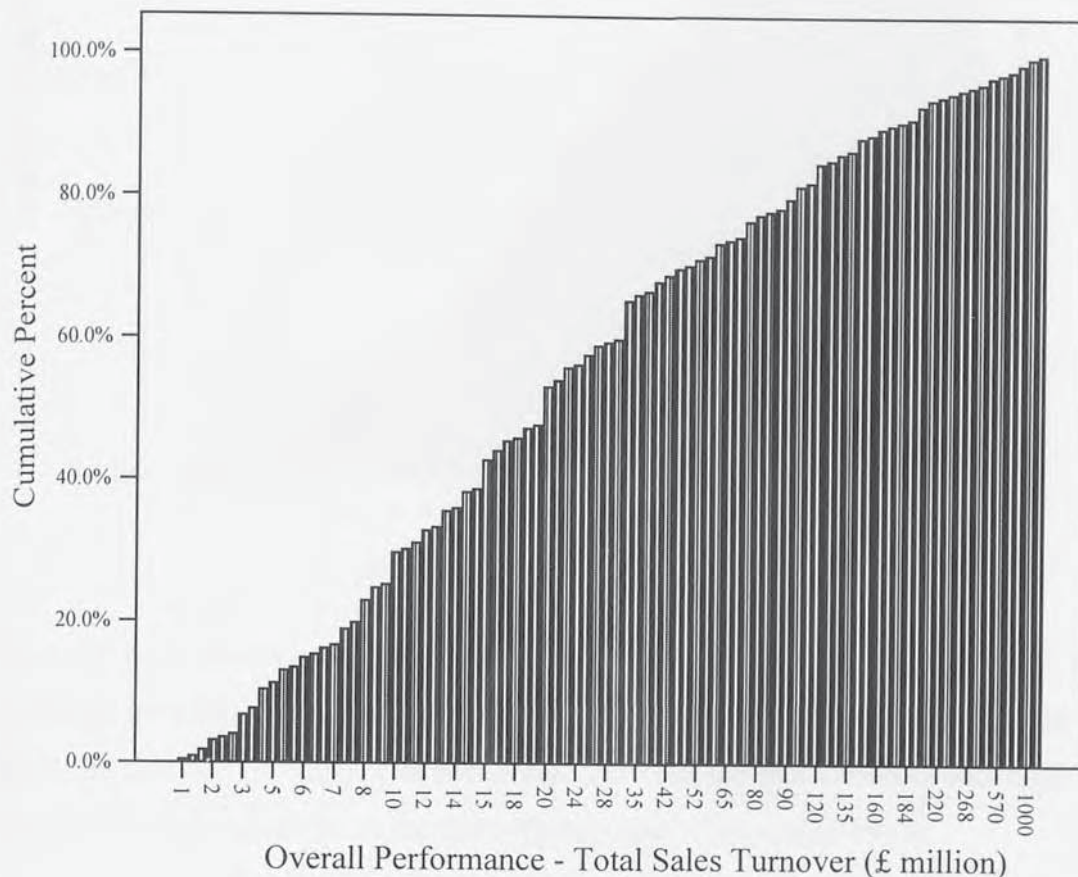
Figure 5.2 provides the cumulative distribution of the firm size variable measured by the number of employees. There is no missing value for this question. It appears that the number of full time employees ranged from 26 to 8,000 while the average number was 350.77 employees. With a large number of standard deviation and a median of 160, the sample distribution was also positively skewed with about 80% of the respondents reporting below the mean.

Figure 5.2: Size of Firm as Cumulative Percent
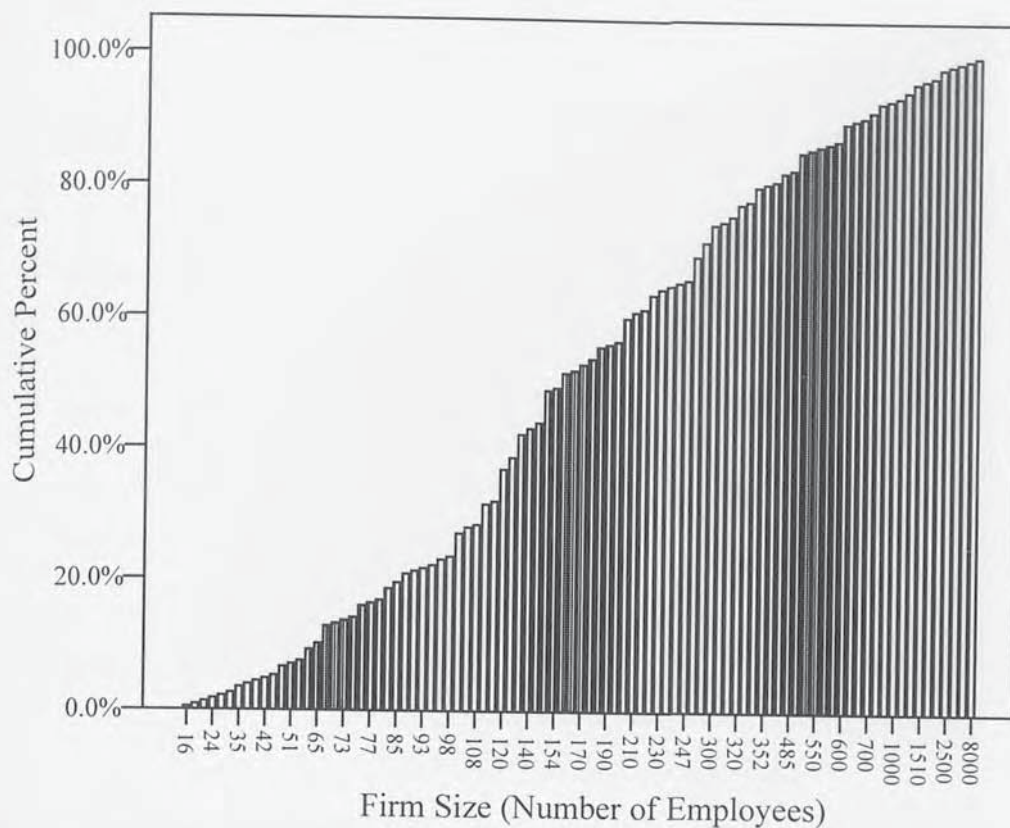
Given that both sales turnover and number of employees being indicators of size, the correlation between the two was tested. The Spearman correlation coefficient was significant at 0.723 (N=222). The correlation between the two variables was high and in support of previous work in the field (Bonaccorsi 1992; Calof 1994).

Respondents were also asked to provide details of the number of employees in the firm that are directly involved in the exporting operations. The reported number ranged from 2 to 200. On average, firms in the sample employed about 19 people to deal directly with export matters. The distribution was negatively skewed with the median being eight employees. Figure 5.3 provides the cumulative distribution of the number of export employees.

Figure 5.3: Number of Export Employees as Cumulative Percent
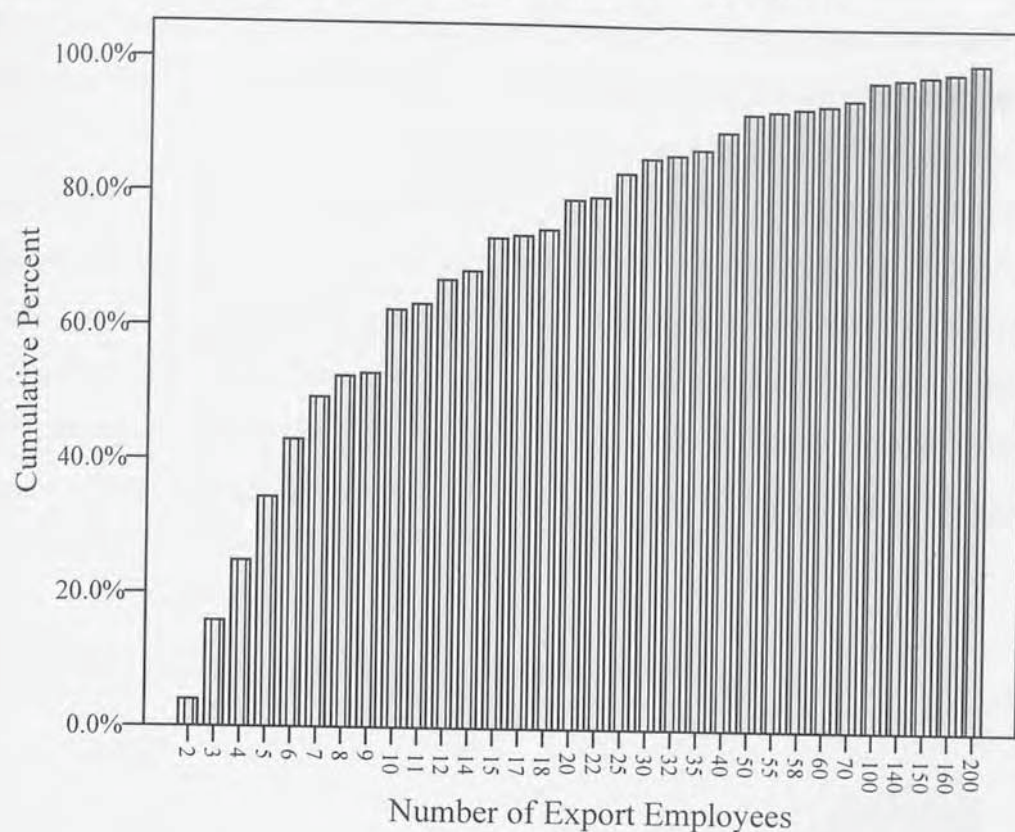
5.2.3 Business Experience

In this study business experience reflects a company's familiarity with its markets (c.f. Aulakh, Kotabe and Teegen 2000; Diamantopoulos and Horncastle 1996) and is measured by the number of years a firm has been operating. The sample of firms have been in business ranging from 5 to 300 years, and the average score was just slightly above 63 years, with a standard deviation of 49.24 (refer to Table 5.2).

Table 5.2: Profiling the Respondents - Summary Statistics

Variable	Mean	Median	Standard Deviation	Range	N
Turnover (million £)	80.03	20	198.49	1-2000	222
Number of Employees	350.77	160	691.97	26-8000	225
Number of Export Employees	18.96	8	32.86	2-200	222
Years in Business	63.33	50	49.24	5-300	224
Years Exporting	36.29	30	31.15	3-200	224
Export marketing dependence	38.66	35	26.38	4-95	221
Number of Export Destinations	28.96	20	24.67	1-119	219

Firm export experience varies within the sample, from a minimum of 3 years to a maximum of 200 years (standard deviation = 31.15). The distribution was positively

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skewed, with the median was 30 and the mean 36.29 years (See Figure 5.4 for the cumulative distribution of firm's export experience). Given that a firm's overall business experience will constraint the export experience, a two-tailed Spearman correlation between a firm's business experience and its exporting experience was performed. A two-tailed significance of 0.000 ($r_s = 0.724$, N=224) was returned indicating that export experience increases with overall business experience. A further check was performed and found that 20.5% of the responding firms started their export operations at the same time they started their domestic operations (i.e. 0 year difference). However, the overall firms' difference in experience ranges from 0 to 200 years, and the average score was just above 27 years, with a standard deviation of 34.27 and the median 15 years.

Figure 5.4: Export Experience as Cumulative Percent
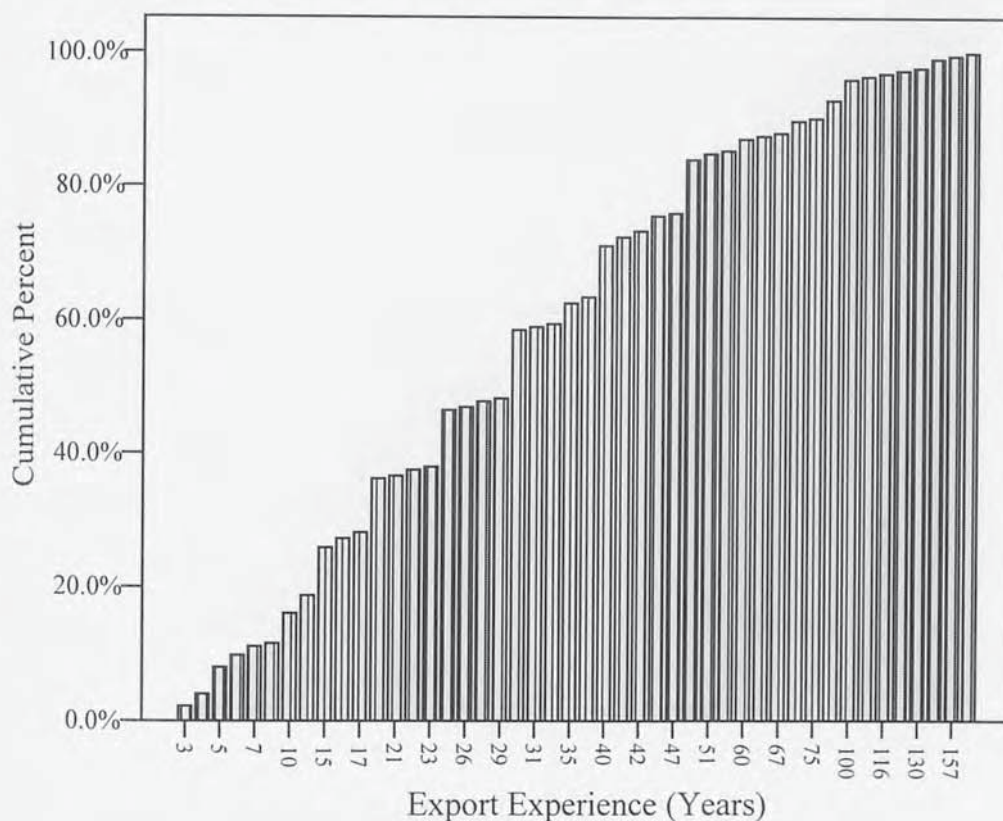
5.2.4   Export Dependence

Export dependence was captured by measuring a firm's export sales as a percentage of total sales. Figure 5.5 provides the cumulative distribution of firm export dependence as measured by the percentage of export sales to total sales. The distribution was positively skewed with 52.5% of respondents reporting a value lower than the sample mean. It was found that on average 38.66% of total sales were generated from export markets. The range was between 4% to 95% (standard deviation = 26.38; N = 221) and the median was 35%.

Figure 5.5: Percentage of Export Sale as Cumulative Percent
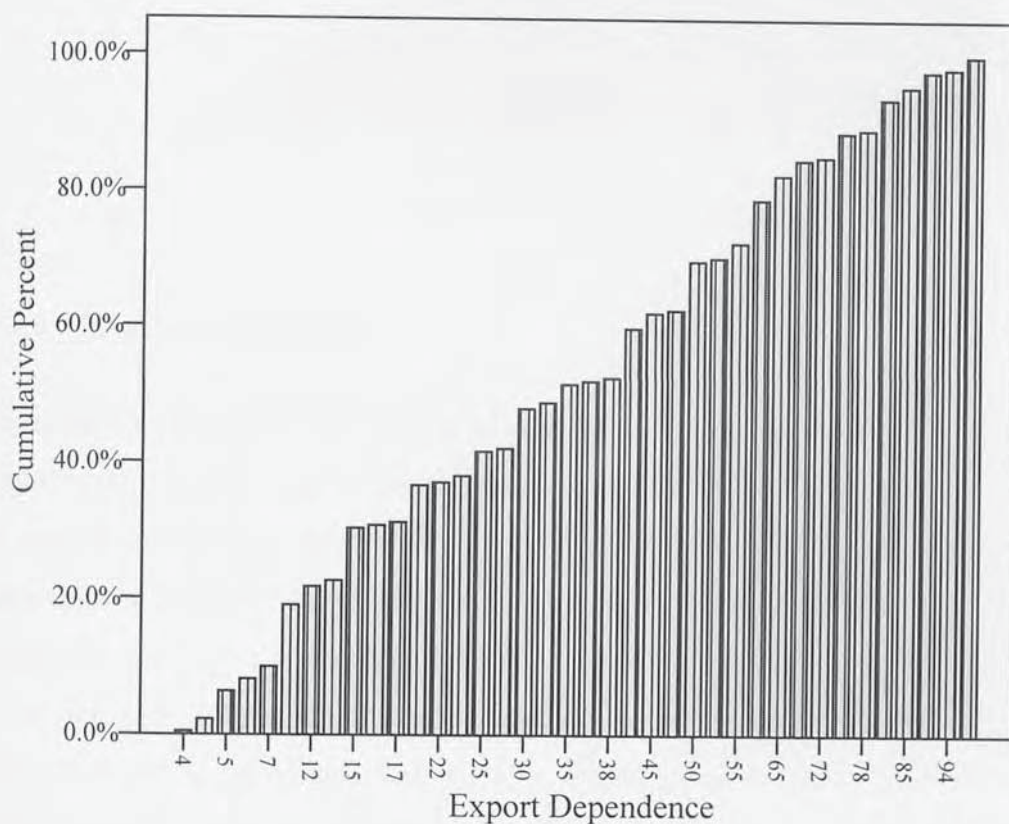
5.2.5   Export Destination Diversity

In terms of countries exported to, the range was from 1 to 120 countries, with the average score was just under 29 countries (standard deviation = 24.67; N = 219). As can be seen in the histogram (Figure 5.6), the distribution was positively skewed with 50% of the respondents reported to export to less than 20 countries.

Figure 5.6: Number of Export Destinations as Cumulative Percent
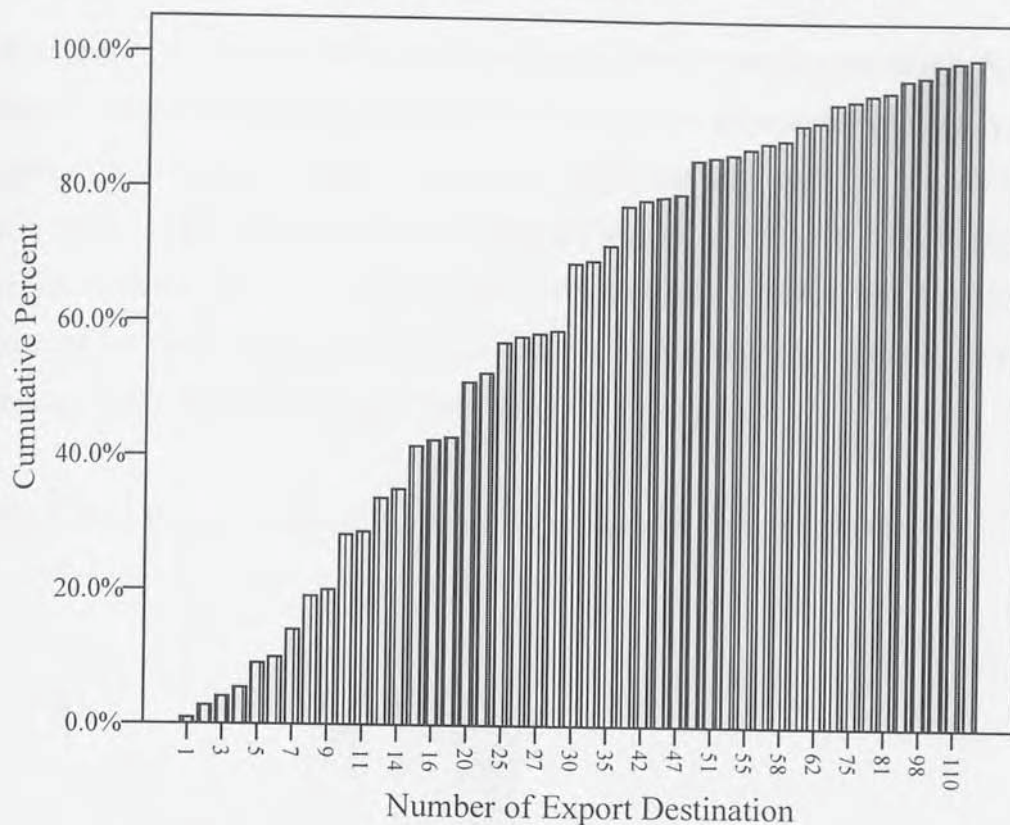
5.2.6 Number of Regions

Seventeen point eight percent (17.8%) of the respondents claimed to be exporting to all eight regions specified in the questionnaire. Only 5.3% and 11.1% reported to export to one and two regions respectively. On average, firms export approximately to five regions (standard deviation = 2.17; median = 5). As expected, given the close proximity, the majority of respondents (95.1%) indicated that they export to European Union countries. Other major regions exported to include North America (69.8%), Asia (69.3%) and the Middle East (63.1%) while the least popular regions were Africa (48.9%), and South and Central America (37.3%). The Spearman correlation coefficient between the number of countries and the number of regions exported to was 0.686, with one-tailed significance of 0.000 (N = 224).

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5.2.7 Business Strategy

With respect to business strategy, amongst the firms in the sample, it was found that a large number of firms adopted analyzer, defender and prospector strategy types in both domestic and export markets (Figure 5.7). There was only 0.9% percent of firms which adopted the reactor strategy in their domestic market compare to 3.1% in the firms' export markets. However, a closer look at the data showed 64.4% of firms had similar types of business strategy in both markets. The rest of the firms adopted different strategy types across their export and domestic markets.

Figure 5.7: Firms' Strategy Type in Domestic and Export Markets
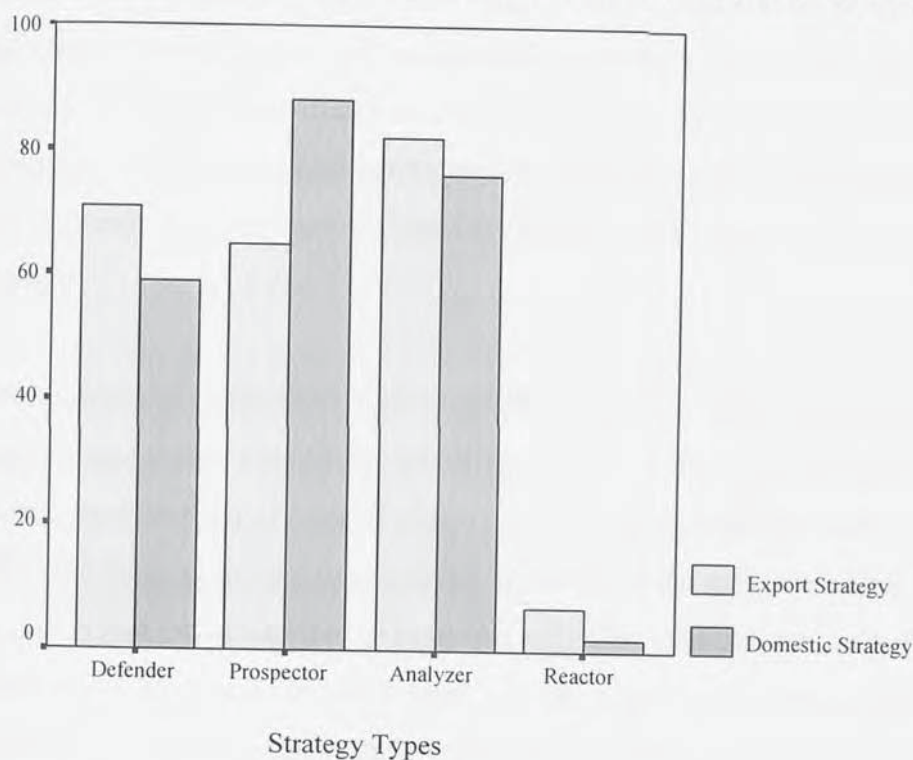
5.2.8 Section Summary

This section has highlighted the descriptive analysis of the sample and as demonstrated the respondents in this study came from a wide range of size, level of experience and backgrounds. Furthermore, the sample of firms also export to various countries and regions and hence were exposed to many different business environments. The next section details the actual construction and purification of the scales used in this study.

5.3 DEVELOPING MEASURES OF DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS AND DIFFERENCES IN DOMESTIC AND EXPORT MARKET ENVIRONMENTS

This section will first discuss in detail the techniques used in developing the two key measures used in this study using well established procedures as described by among others, Anderson and Gerbing (1988), Churchill (1999), DeVellis (1991), Peter and Churchill (1993), and Spector (1992). This includes assessment for the reliability, validity, and unidimensionality of the constructs. This is followed by the actual measure development construction which involves the purification process of new scales developed in this study. Following the initial purification process, the two new scales and all other scales used in this study were then subjected to confirmatory factor analysis. To test for construct convergence, the new constructs were entered with other constructs within maximally similar set of variables (Baker and Sinkula 1999a). After further purification, construct reliability, validity, and characteristics of the scales were assessed.

The measures of differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments consist of a set of observed variables or indicators which conceptually reflect the latent construct (unobserved variable) of the measures. Underlying this concept is that latent variable or concepts will affect the indicators (Bollen 1984; Diamantopoulos and Winklhofer 2001). In other words, attempts were made to select a set of items which most accurately reflect the variation in the construct. In order to get the set of items "that form an internally consistent scale and to eliminate those items that do not" (Spector 1992, p. 28), all observed variables were subjected to item analysis.

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5.3.1 Item Analysis

The new measures in this study consist of set of items to reflect the latent constructs and therefore the items for each construct should exhibit high level of internal consistency and high level of correlations amongst the individual items (see Lee and Hooley 2005). To achieve this objective, each item was subjected to inter-item correlation (each item with every other item) as well as item-total correlation (each item with the sum of the remaining item). Spector (1992) describes two criteria for retaining items within the scale. Items that correlate negatively or do not correlate strongly were further eliminated at this stage[1] and only items with statistically significant (at $p < .05$) item-whole correlations were included within the scale.

5.3.2 Reliability Assessment

At this stage, the reliability of the remaining items needs to be examined. Reliability concerns "the proportion of variance attributable to the true score of the latent variable" (De Vellis 1991, p. 24). Spector (1992, p. 65) explains that "[internal] consistency reliability is an indicator of how well the individual items of a scale reflect a common underlying constructs". One way of looking into reliability is through the assessment of the coefficient alpha or better known as Cronbach alpha. Cronbach alpha's measure of internal consistency is computed for each scale. Nunnaly (1978) recommends a value of 0.70 as the threshold for the lowest acceptable level for alpha while DeVellis (1991) suggests the scales need to be shortened if the values exceed 0.90. Additionally, scales' reliability can be examined through composite reliability (CR) if they are assessed through confirmatory factor analysis (CFA). This is discussed in Section 5.4.

5.3.3 Unidimensionality

The critical assumption of the measurement theory is that each scale measures only one underlying concept (Hattie 1985). Furthermore, a scale "is meaningful only if… the [measure] is acceptably unidimensional" and hence "the scale development process

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[1] All negatively worded items were reverse scored, so that all items were consistently scored.

must include an assessment of whether the multiple measures that define a scale can be acceptably regarded as alternative indicators of the same construct" (Gerbing and Anderson 1988, p. 186). Following Churchill (1979), unidimensionality of the measures was assessed after the scale had been examined for internal consistency and purified.

In assessing unidimensionality, a factor analytic approach as suggested by DeVellis (1991) was adopted. A purely exploratory approach was adopted in this study because the number of latent variables of the constructs was not pre-determined (DeVellis 1991; c.f. Hair et al 1998). The evidence of unidimensionality would occur if the items load significantly on only one factor (Spector 1992). If the items load significantly on more than one factors, the items suffer from lack of unidimensionality.

In this study, a common principle axis factoring (PAF) analysis with an Oblimin oblique rotation was used (see Lee and Hooley 2000; Kline 2000; Sharma 1996), where it is assumed that the observed correlations between the items (within each scale) are purely the result of shared factors. Given that the sample size of this study is 225, factor loading of 0.4 was chosen as the critical value (Hair et al. 1998).

5.3.4 Validity Assessment

In addition to the internal consistency and unidimensionality, measures must also be assessed for their validity (Churchill 1979, Gerbing and Anderson 1988). This is because the presence of unidimensionality does not automatically qualify the measures' validity (Peter 1981). Item validity is how well an item measures what it should, and a valid measure consists of valid items. Validity is important because theoretical constructs are not observable, and relationships among unobservable constructs are tested indirectly via observed variables (Bagozzi 1984; Ping 2004). Thus validity reveals how well a measure reflects its unobservable construct. It is established using relationships between observed variables' relationships with other sets of observed variables (Ping 2004). Five types of validity are examined in this study, namely, content validity, criterion validity, nomological validity, construct validity, and discriminant validity.

5.3.5 Content validity

Content validity refers to "the extent to which a specific set of items reflects a content domain" (DeVellis 1991, p. 43). All scales including the two new scales used in this study are considered to have content validity because all the items came from relevant literature. The domains were clearly defined in each introduction and subheading within the questionnaire in order to assist the respondents to relate easily to the specific constructs (see Ping 2004). Furthermore, a number of academics and practitioners had assessed all items used in this study and this further supports the content validity of the measures (Gerbing, Hamilton and Freeman 1994).

5.3.6 Criterion Validity and Nomological Validity

Criterion validity concerns "the correspondence of a measure with a criterion measure and is indicated if the construct performs as expected with respect to standard measure of the same concept" (Ping 2004, p.130). If the correlation between the scale and the criterion is high then the measure is said to have criterion related validity (Churchill 1999). A measure has nomological validity if it "behaves as expected with respect to some other construct to which it is theoretically related" (Churchill 1999, p. 547). As such, the hypothesis development discussion in Chapter 3 provided the nomological validity of the differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments measures. Furthermore, support for nomological validity can be found if the specific relationship between the items were uncovered. In this study criterion and nomological validity would be assessed through correlation analysis on items of interest (see Section 5.9.2).

5.3.7 Construct Validity

Construct validity is concerned with a measure's degree of relationship with other constructs (Ping 2004). To suggest the presence of construct validity, all measures of interests (the tested and target measures) must show plausible correlations (i.e. their significance, direction, and magnitude). Discriminant validity is present when the measure has low correlation with "other measures that are supposedly not measuring

the same variable or concept" (Heeler and Ray 1972, p. 362). In this study, construct validity can be assessed for its average variance extracted (see Ping 2004) and discriminant validity. This is discussed in detail in Section 5.9.1.

The next section deals with the actual purification and development of the differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments measures as outlined above.

5.4   MEASURE CONSTRUCTION AND PURIFICATION PART ONE

Prior to measure construction, all negatively worded items were reversed scored so that high scores correspond to high values. Then each construct was analyzed separately in order to purify the scale. The scale purification utilized in this study includes item analysis and exploratory factor analysis and is discussed in the following sections.

5.4.1   Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

5.4.1.1 Item Analysis

All new constructs for this study were first subjected to item analysis. The three differences in market-oriented behaviour levels across firms' domestic and export operations constructs (differences in generation of market intelligence, differences in dissemination of market intelligence, and differences in responsiveness to market intelligence) were examined separately through correlation analysis. For each of the three constructs, all items under assessment correlate very strongly with each other and the results are presented in Appendix 5-1. The coefficient alpha for each construct was above the recommended threshold suggested by Churchill (1999). Table 5.3 shows the profile of the means and standard deviations of each item and the coefficient alpha for the scale and indicates that they had an acceptable mean and standard deviation. Hence, no items were eliminated at this stage.

Table 5.3: Profile of Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations Items

Measurement Items[2]	Mean	s.d.
Differences in Generation		
Generating information on market trends	4.39	1.10
Monitoring customer satisfaction	4.25	1.11
Detecting fundamental environmental shifts	4.33	.99
Differences in Dissemination		
Rapidly communicating important information	4.04	1.08
Disseminating information to all levels in the business	4.03	.94
Communicating between employees	4.89	.97
Discussing customers' needs with other units	3.93	.94
Updating the business on important market changes	4.14	1.08
Differences in Responsiveness		
Speed of market response	4.29	1.07
Competitive response activities	4.21	1.02
Overcoming competitive threats	4.32	1.04

Note:

Scale ranges from 1 = Export Marketing Superior to 6 = UK Marketing Superior
Items: 11; Mean: 4.16; Std Dev: 1.02; Alpha:.91; No of cases: 225

5.4.1.2 Exploratory Factor Analysis (EFA) and Dimensionality

Following item analysis, the next stage of assessment involved the unidimensionality assessment. All differences in market-oriented behaviour across firms' domestic and export operations items were simultaneously entered into PAF with Oblimin oblique rotation. All items loaded significantly into each factor at 0.4 with factor variance of 72.69%, 61.56% and 79.42% respectively. The KMO and Bartlett's tests were both shown the appropriateness of the data for EFA. Detail results are presented in Table 5.4.

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[2] Rating-type scale is used for this scale and the items presented here is slightly different from the one used in the questionnaire. For detail, please refer to the questionnaire used in this study (Appendix 4-4).

Table 5.4 Factor Matrix of Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

Measurement Items	Differences in Generation
Generating information on market trends	.855
Monitoring customer satisfaction	.673
Detecting fundamental environmental shifts	.780
KMO = .698; Bartlett's Test = 232.604	
Eigenvalue	2.181
Percentage of Variance Explained	72.688
Items: 3; Mean: 4.26; Std Dev: 1.01; Alpha:. 81; No of cases: 225	

Measurement Items	Differences in Dissemination
Rapidly communicating important information	.703
Disseminating information to all levels in the business	.772
Communicating between employees	.619
Discussing customers' needs with other units	.767
Updating the business on important market changes	.741
KMO = .797; Bartlett's Test = 453.029	
Eigenvalue	3.078
Percentage of Variance Explained	61.564
Items: 5; Mean: 4.26; Std Dev: .96; Alpha:. 84; No of cases: 225	

Measurement Items	Differences in Responsiveness
Speed of market response	.799
Competitive response activities	.912
Overcoming competitive threats	.786
KMO = .723; Bartlett's Test = 339.333	
Eigenvalue	2.383
Percentage of Variance Explained	79.418
Items: 3; Mean: 4.21; Std Dev: .94; Alpha:. 87; No of cases: 225	

5.4.1.3 Simultaneous Analysis of the Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations Scale

The next step was to run all the remaining items from all three differences in market-oriented behaviour levels across firms' domestic and export operations constructs into EFA. The analysis resulted in a single factor solution explaining 56.65% of the variance. The factor matrix of this eleven-item scale and the summary statistics are presented in Figure 5.5. The KMO and Bartlett's tests were both showed the appropriateness of the data for EFA.

The scale statistics for the final measure such as sample mean, standard deviation, and coefficient alpha, were also computed and are shown in Table 5.5. The results from the two procedures above (i.e., item analysis and PAF procedure) provide a strong support

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for the internal consistency of the differences in market-oriented behaviour levels across firms' domestic and export operations items and unidimensionality of the construct.

Table 5.5: Factor Matrix of Differences in Market-Oriented Behaviour Across Firms' Domestic and Export Operations Scale

Measurement Items	Differences in Market-Oriented Behaviour Levels
Generating information on market trends	.769
Monitoring customer satisfaction	.684
Detecting fundamental environmental shifts	.736
Rapidly communicating important information	.746
Disseminating information to all levels in the business	.694
Communicating between employees	.548
Discussing customers' needs with other units	.722
Updating the business on important market changes	.748
Speed of market response	.772
Competitive response activities	.759
Overcoming competitive threats	.757
KMO = .919; Bartlett's Test = 1452.037	
Eigenvalue	6.232
Percentage of Variance Explained	56.651
One factor extracted, 12 iterations required	
Items: 11; Mean: 4.16; Std Dev: 1.02; Alpha:.91; No of cases: 225	

5.4.2 Differences in Domestic and Export Market Environments

5.4.2.1 Item Analysis

The multi-item scale of differences in domestic and export market environments was assessed in the same manner as the differences in market-oriented behaviour levels across firms' domestic and export operations scale. Items analysis was conducted and the results show that all items correlation perform rather strong with all other items for the construct at 5% significant level (see Appendix 5-2 for the full matrix). Furthermore, the mean and standard deviation of each item as presented in Table 5.6 were also acceptable. Hence all items were then taken to the next exploratory factor analysis.

Table 5.6: Profile of Differences in Domestic and Export Market Environments Items

Measurement Items[3]	Mean	s.d
Export customers have greater predictability	3.60	1.41
Export customers have greater price sensitivity	3.52	1.29
Export customers have similar buying patterns	3.53	1.40
Export customers have more stable product preferences	4.04	1.17

5.4.2.2 Exploratory Factor Analysis and Dimensionality

The construct was then entered individually on PAF analysis with Oblimin oblique rotation and the results are presented in Table 5.7. The KMO and Bartlett's test results show that the data is suitable for factor analysis. The procedure resulted in a single factor explaining 54.95% of the total factor variance. All items also loaded significantly well on the factor solution. The scale alphas for the construct was 0.72. As a result, all items were retained for the next level of analysis.

Table 5.7 Factor Solutions – Differences in Domestic and Export Market Environments Scale

Measurement Items	Differences in Market Environment
Export customers have greater predictability	.828
Export customers have greater price sensitivity	.501
Export customers have similar buying patterns	.529
Export customers have more stable product preferences	.671
KMO = .671; Bartlett's Test = 198.443	
Eigenvalue	2.198
Percentage of Variance Explained	54.951
KMO = .919; Bartlett's Test = 34.55; 1 Factors extracted, 8 iterations required	
Items: 4; Mean: 3.67; Std Dev: 1.31; Alpha:.72; No of cases: 225	

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[3] Differences in domestic and export market environments scale uses semantic differential type scale, hence the listed items presented here is slightly different from the one used in the questionnaire. For detail items, please refer to the questionnaire presented in Appendix 4-4.

5.5 MEASURE CONSTRUCTION AND DEVELOPMENT PART TWO

5.5.1 Confirmatory Factor Analysis

The next step involves assessing the new measures through confirmatory factor analysis (CFA) procedure. Gerbing and Anderson (1988) argue that unidimensionality of a multiple indicator measurement can only be assessed through CFA. The CFA procedures provide "a stricter analysis and interpretation of unidimensionality than can be provided by more traditional methods such as coefficient alpha, item-total correlations, and exploratory factor analysis and thus generally will provide *different* conclusions about the acceptability of the scale" (Gerbing and Anderson 1988, p. 186, emphasis in original). While quoting Churchill (1977), Gerbing and Anderson (1988) argue that factor analysis is satisfactory during the early stages of research on a construct, while CFA is better at later stages. As Gerbing and Hamilton (1996, p. 63) state: "it is always preferable to begin an analysis as far along the confirmatory end of the continuum as possible". Furthermore, they argued that "data driven methods such as exploratory data analysis lack the rigor of the specification of a priori models required by the "confirmatory" alternatives" (p. 863) thus provide rigour assesement of the unidimensionality of the constructs.

Based on these recommendations, all constructs used in this study were entered into CFA for unidimensionality evaluation. With structural equation modeling, "unidimensionality is evaluated not only by the relations of the items on a scale with each other, but also with *all* other items in the model"(Gerbing, Hamilton and Freeman 1994, p. 861)

5.5.2 Model Specifications

In operationalizing the CFA, it is necessary to specify exactly the relationships the model proposed. Unlike the conventional measure development theory, CFA can examine a unique error term associated with each item and their intercorrelations and impact on the observed items scores. Furthermore, through CFA, the assumption of unidimensionality that each observed indicator reflects on latent construct can be

hypothesised and tested. A simplified three-factor CFA model of export market-oriented behaviour developed by Cadogan et al.(2001) is shown in Figure 5.8.

Figure 5.8: A Three Factor CFA Model of Market Orientation

Adapted from Byrne (1998) and Cadogan et al. (2001).

The exact nature of the three-factor model of market orientation is hypothesized *a priori*. In this model x_1, x_2, and x_3 are indicators of ξ_1 (latent construct for generation of export market intelligence), x_4, x_5 and x_6 are indicators of ξ_2 (latent construct for dissemination of export market intelligence) and x_7, x_8 and x_9 are indicators of ξ_3 (latent construct for responsiveness to export market intelligence), δ represents the unique error terms, and λ represents the factor loadings of each item on its latent construct. The correlation between the latent constructs is represented by ϕ. A covariance matrix between the observed items score was used to estimate the above parameters. Harvey, Billings and Nilan (1985) noted that differences in item variances are lost in the

analysis of correlations because all variables are standardized to a common variance. Retaining this information is particularly important for this study because the focus was on the possible introduction of method variance from different item wording across the two market orientation constructs (see McGee, Ferguson and Seers 1989).

5.5.3 Assessment of Measurement Model

The purpose of assessing a model's overall fit is to determine the degree to which the model as a whole is consistent with the data generated from the study. A wide range of goodness of fit indices used in this study was based on the recommended indices of overall fit by Hu and Bantler (1995) and Hoyle and Panter (1995). They include chi-square statistic, goodness of fit index (GFI), non-normed fit index (NNFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA).

The chi-square statistics (χ^2) is the most commonly used for evaluating overall model fit in covariance structure model (Diamantopoulos and Siguaw 2000; Hoyle and Panter 1995). The chi-square statistics also provides "a test of perfect fit in which the null hypothesis is that the model fits the population data perfectly. A statistically significant chi-square causes rejection of the null hypothesis, implying "imperfect model fit and possible rejection of the model" (Jaccard and Wan 1996, p. 18). However, March and Hocevar (1985) caution that in large and complex problems with many variables and large degrees of freedom, the observed chi-square will nearly always be statistically significant, even when there is a reasonably good fit to the data. For a reasonable fit, March and Hocevar (1985) recommend that the ratio of the chi-square to the degree of freedom be as low as 2 or as high as 5 to indicate a reasonable model fit.

The goodness of fit index (GFI) falls under the absolute fit index where it measures the "proportionate improvement in fit by comparing a target model with a more restrictive, nested baseline model" (Hu and Bentler 1985, p. 82). Non-normed fit index (NNFI) or Tucker Lewis fit index (TLI) (Bentler and Bonett 1980) compares the lack of fit of a target model to the lack of a fit of a baseline model. The value estimates the relative improvement per degree of freedom of the target model over a base model. CFI (Bentler 1990) assesses the relative reduction in lack of fit as estimated by the

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noncentral χ^2 of a target model versus a baseline model. The GFI, NNFI and CFI show that the indices increase as the model fit improves, and values over 0.9 are considered to indicate good model fit (Kelloway 1998; Ping 2004).

Additionally, Steiger's (1990) rootmean square error of approximation (RMSEA), shows "how well would the model, with unknown but optimally chosen parameter values, fit the population covariance matrix if it were available" (Browne and Cudeck 1993, p. 137 – 138). Hence if the model fits perfectly with the population, then RMSEA will equal to zero. However, values less than 0.05 are indicative of good fit, while values between 0.08 and 0.10 are of mediocre fit (Browne and Cudeck 1993; Kelloway 1998).

5.5.4 Model Respesification

Model respecification or modification is mostly undertaken when the tested model experiences model misspecification that is shown by poor model fitting or lack of unidimensionality. LISREL provides key input for model respecification and this can be undertaken in several ways. The goal of model respecification is to improve either the parsimony or the fit of the model (Kelloway 1998) and one way to respecify the model is by deleting non-significant paths from the model (Pedhazur 1982). However, any modifications made must be substantially meaningful and theoretically justified (Kelloway 1998; MacCallum, Roznowski and Necowitz 1992).

There are several ways model modification can be undertaken. The first step is to check on the residual matrix, where large values suggest that the model is unable to adequately explain the relationships postulated in the model (Sharma 1996). Additionally, modification indices provide the approximate decrease in χ^2 when a given fixed parameter is freed (Sharma 1996), thus modification indices larger than 3.84 are considered to be 'large' since this value is the critical value of the χ^2 statistics with one degree of freedom significant at 5% level. On the other hand, freeing one or more errors (due to high modification indices) means that one allows the errors to correlate and thus violates the unidimensionality assumptions of measurement theory. Thus, observed scale items that have correlated errors are candidates for deletion (see

Gerbing and Anderson 1988). Following Byrne (1998), Diamantopoulos and Siguaw (2000), Kelloway (1998), and Ping (1995), the model respecification was undertaken in several iteration where variable displaying the highest modification indices (theta-epsilon) was removed from the model. As there was only one item removed at any one time, the model was then re-run until the model shows a satisfactory fit. Again the procedure needs to account for theoretical underlying of each construct.

5.5.5 Reliability and Validity of Measurement

5.5.5.1 Composite Reliability (CR)

Using the results from the CFA, all constructs were further assessed for their reliability. Gerbing and Anderson (1996, p. 190) state "[u]nidimensionality alone is not sufficient to ensure the usefulness of a scale… the reliability of the [scale] should be assessed after unidimensionality has been established". One way to assess the reliability is by using coefficient alpha (Nunnally 1978). However, coefficient alpha assumes that its items are perfectly correlated or without measurement error (Bollen 1989) and thus coefficient alpha underestimates reliability (Ping 2004). Subsequently, composite reliability suggested by Fornell and Larcker (1981) and Gerbing and Anderson (1988) is used. The formula is presented in equation 5.1, and as shown, it includes the indicators measurement error for x_i as denoted by (e_i). λ_i is the loading of x_i on X, $Var(X)$ is the disattenuated (measurement error free) variance of X, and Σ denotes a sum.

Equation 5.1: Composite Reliability

$$\rho_X = \frac{(\Sigma\lambda_i)^2 Var(X)}{(\Sigma\lambda_i)^2 Var(X) + \Sigma Var(e_i)}$$

Bagozzi and Yi (1988) recommend that a composite reliability of score of greater than 0.6 is desirable. It has been argued that an adequate composite reliability score is sufficient to conclude that a given construct exhibits sufficient convergent validity (Fornell and Larcker 1981).

5.5.5.2 Average Variance Extracted (AVE)

The presence of a construct convergence validity can be explained by assessing its average variance extracted, AVE (Fornell and Larcker 1981). The result explains the percentage of total variance of a measure represented or extracted by the variance due to the construct. It can be computed using the formula in equation 5.2. Bagozzi and Yi (1988), Fornell and Larcker (1981), and Ping (2004) advocate for a minimum score of 0.5 for an acceptable AVE score.

Equation 5.2: Average Variance Extracted

$$AVE_X = \frac{(\Sigma \lambda_i^2) Var(X)}{(\Sigma \lambda_i^2) Var(X) + \Sigma Var(e_i)}$$

The formula specifies that λ_i is the loading of the indicator x_i on the latent variable X, $Var(X)$ is the disattenuated (error free) variance of X, and e_i is the measurement error of x_i and Σ indicates a sum.

5.6 CONSTRUCTING THE MEASURES

At this stage all items from all multi-item scales in the model were entered into CFA procedures with maximum likelihood estimation (ML) using LISREL 8.52. Each item was hypothesized with relevant latent constructs. Each set of the new construct was split and then entered into sets of theoretically related variables (see Baker and Sinkula 1999a; Doney and Cannon 1997; Hewett and Bearden 2001; Menon et al. 1999). This was done mainly to avoid violating recommended minimum ratio of sample size to parameters estimate at 5:1 (Bentler and Chou 1988). With a sample size of 225, 20 constructs and 79 parameters to be estimated, entering all parameters into one single CFA analysis would result in poor estimation.

Secondly, splitting the constructs into several sets may make it possible "to test for constructs convergence within maximally similar set of variables" (Baker and Sinkula 1999a, p. 418). Finally, following recommendation from Peter, Churchill and Brown (1993), the two newly developed difference measures (differences in market-oriented

behaviour levels across firms' domestic and export operations and differences in domestic and export market environments), were entered into the relevant set of CFA model in order to examine the "correlations of the components with difference score and with other [maximally similar] variables" (p. 662).

Accordingly, all three market orientation constructs (domestic market-oriented and export market-oriented behaviour, and differences in market-oriented behaviour levels across firms' domestic and export operations) were tested in one CFA model. Similar procedures were applied to environmental turbulence constructs where all relevant constructs were entered into a second group of CFA model. The three environmental turbulence constructs are domestic market turbulence, export market turbulence, and differences in domestic and export market environments. The third CFA group involved constructs related to interfunctional issues (interfunctional interactions, export marketing dependence, and domestic marketing dependence) while the final CFA model consists of four performance constructs (domestic sales performance, domestic profit performance, export sales performance, and domestic profit performance).

All scale items were entered into their respective CFA groups for purification. Each CFA model was analysed separately and items that were found to have strong influence on any model-fit problems were removed (see Section 5.5.4. on model respecification). In order to obtain satisfactory unidimensionality, each model was respecified by identifying items with high values in the residual matrix for possible deletion (Sharma 1996). Additionally, items that appeared to have error terms that are correlated with errors in other items (Gerbing and Anderson 1988) were also identified and removed because they appeared to reflect more than one of the hypothesized constructs. Respecification was done through an iterative process where the item with the highest modification indix was first removed from the analysis. The model was then re-analyzed and the process was repeated until no major problems were present in the model. Results for each CFA model presented in the preceding sections are the final set of solutions after observing the procedures for model respecification.

5.7   GROUP ANALYSIS USING CONFIRMATORY FACTOR ANALYSIS

As stated earlier, there were four models of CFA. The four models are related to market orientation, environmental turbulence, interfunctional interactions, and performance constructs.

5.7.1   Group One: Market Orientation

In this study, domestic market-oriented and export market-oriented behaviour were conceptualized as higher-order factors. Other market orientation studies that explicitly conceptualized market orientation as higher-order factor include Bhuian, Menguc and Bell (2005), Kohli, Jaworski and Kumar (1993), Matsuno, Mentzer and Rentz (2000), and Matsuno, Mentzer and Ozsomer (2002). There are also a large number of studies that conceptualized market orientation as a higher-order (e.g., Cadogan, Diamantopoulos and deMortanges 1999; Jaworski and Kohli 1993; Siguaw, Brown and Widing 1994; Slater and Narver 1994) however, with exception of the pioneering efforts of Matsuno, Mentzer and Rentz (2000), the higher-order constructs of market orientation were not tested and validated through a rigorous second-order CFA.

The CFA on a second-order factorial structure is a theoretically more constrained model because it provides more information as to the relationship between higher-order market orientation construct and the lower order factors in the form of coefficients rather than correlations as in the measurement model (Matsuno, Mentzer and Rentz 2000). A detail discussion on higher-order factor is discussed in the next section. Specifically, market orientation constructs were subjected to first-order and higher-order factors, and the first-order model is discussed first followed by the second-order factor.

5.7.1.1 First-Order Factor of Market Orientation Constructs

In this first-order CFA model, seven constructs of market orientation were subjected to unidimensionality and validity test. The seven constructs are generation of domestic market intelligence, dissemination of domestic market intelligence, responsiveness to market intelligence, generation of export market intelligence, dissemination of export

market intelligence, responsiveness to export market intelligence, and differences in market-oriented behaviour levels across firms' domestic and export operations. All seven constructs were entered at once and it was found that many of the domestic market-oriented behaviour and export market-oriented behaviour items experienced cross loadings and high correlated errors. Cross loading, however, is expected due to item constructs which were closely related. There were also correlated errors between several domestic intelligence responsiveness construct with export intelligence responsiveness. Furthermore, the measures of domestic intelligence generation and export intelligence generation also faced some problems with cross loadings items and correlated errors. This suggests that the initial pool of items suffer from lack of unidimensionality and thus requiring some respecification.

Model respecifications were undertaken and as a result, several items were eliminated from this process, and the final measurement model is listed in Table 5.8. The results as presented in Table 5.8 show an excellent fit statistics with χ^2 statistic of 410.91 (d.f = 254) and RMSEA was 0.053. Heuristic indices also returned an acceptable fit, with an exception of GFI which returned a slightly lower fit. However, this is acceptable as GFI demonstrates a severe downward bias for large models (Anderson and Gerbing 1984; Gerbing, Hamilton and Freeman 1994).

For the individual scales, results appeared to be highly satisfactory. All measures returned AVE and CR of above 0.5 and 0.6 cutoff points respectively (Bagozzi and Yi 1988) indicating acceptable levels of reliability and convergent validity (Fornell and Larcker 1981; Ping 2004). Nevertheless, all factor loadings were significant, providing further evidence of the measures' quality. As a result, the operationalisations of the seven scales were deemed acceptable for further analysis.

Table 5.8: CFA Results for Measurement Model One

Items	Standardised Factor Loading (t-value)						
	DOMGEN	DOMDIS	DOMRES	EXGEN	EXDIS	EXRES	MODIFF*
UKGEN1	0.77 (fixed)[a]						
UKGEN4	0.85 (11.97)						
UKGEN6	0.59 (8.51)						
UKDIS1		0.79 (fixed)					
UKDIS2		0.87 (14.33)					
UKDIS4		0.90 (14.87)					
UKRES1			0.95 (fixed)				
UKRES3			0.74 (11.22				
EXGEN1				0.83 (fixed)			
EXGEN4				0.56 (8.34)			
EXGEN5				0.83 (12.63)			
EXDIS1					0.60 (fixed)		
EXDIS2					0.87 (9.31)		
EXDIS4					0.77 (8.69)		
EXDIS5					0.73 (8.46)		
EXRES1						0.75 (fixed)	
EXRES3						0.89 (11.32)	
MODIFF1							0.80 (fixed)
MODIFF2							0.68 (10.62)
MODIFF3							0.78 (12.63)
MODIFF4							0.74 (11.79)
MODIFF6							0.49 (7.28)
MODIFF8							0.73 (11.71)
MODIFF9							0.76 (12.26)
MODIFF11							0.75 (12.07)
CR	.79	.88	.84	.79	.83	.81	.90
AVE	.56	.71	.73	.57	.56	.68	.52

Fit Indices: Chi Square = 410.91; df = 254; RMSEA = 0.053; CFI = 0.95; GFI = 0.88; NNFI = 0.93

Note:

[a]: *fixed items do not return a t-value*

MODIFF = Differences in market oriented-behaviour levels across firms' domestic and export operations

5.7.1.2 Second-Order Factor of Domestic Market-Oriented and Export Market-Oriented Behaviour

As discussed earlier, domestic market-oriented behaviour and export market-oriented behaviour are conceptualized as a higher-order factor. Each first-order construct (or facet) is defined by the unidimensionality of set of items operationalize directly from the Likert items (indicators). The model specifies mutually exclusive unidimensional set of indicators in which the model for the ith indicator x_i is expressed in terms of the underlying factor η, error of measurement δ_i, and regression parameter (pattern coefficient) λ_i, and is expressed by the following equation:

$$x_i = \lambda_i \eta + \delta_i$$

Additionally, each first-order factor is assumed to be a function of two components: a component that is shared with the other primary factors (ξ), and corresponds to the construct of interest, and a component unique to that factor (ζ). The first-order factors may be expressed in terms of the second-order factors as follows:

$$\eta = \gamma \xi + \zeta$$

Where ξ is a second-order factor that is a component of η shared with the the first-order factors, ζ is a unique component of each first-order factor, and γ is the pattern coefficient. With the second-order analysis approach, "each facet's contribution to the construct is quantified by the corresponding factor pattern coefficient instead of the usual arbitrary number of items that happen to operationalize the facet, and each facets as operationalized as the first-order factors are directly related to the constructs. A diagrammatic representation of the second-order model of factorial structure is presented in Figure 5.9.

Figure 5.9: Second-Order Model Factorial Structure

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Adapted from Byrne (1998)

Following Byrne, Baron and Balev (1998), Gerbing, Hamilton and Freeman (1994), and Kumar, Scheer and Steenkamp (1995a), the CFA model for this group is hypothesized a priori that: (a) responses to the domestic market-oriented behaviour could be explained by three first-order factors (domestic market generation, domestic market dissemination and domestic market responsiveness), (b) responses to the export market-oriented behaviour could be explained by three first-order factors (export market generation, export market dissemination and export market responsiveness), (c) two second-order factors explaining domestic market-oriented behaviour and export market-oriented behaviour, (d) each item would have a nonzero coefficient on the first-order factors and one second-order factor it was designed to measure and zero coefficient on the other two first-order factors, (e) error terms associated with each item would be uncorrelated, and (f) covariation among the three first-order factors would be explained fully by their regression onto the second-order factor, and (g) the covariance between the two higher-order factors are set. The second-order factor

structure of domestic market-oriented and export market-oriented behaviour is presented in Figure 5.10.

As discussed in Section 5.7.1.1. (i.e. first-order factor results), the domestic market-oriented behaviour and export market-oriented behaviour constructs (or facets) were shown to be unidimensional. For higher-order model, the two factors of domestic market-oriented behaviour and export market-oriented behaviour were entered simultaneously to assess the higher-order model of the constructs (c.f. Byrne 1998; Dwyer and Oh 1987; Matsuno, Mentzer and Ozsomer 2002). The lower-order structures then formed the higher-order structures in which covariation among first-order factors were deemed to be explained by a second-order factor of domestic market-oriented behaviour and export market-oriented behaviour (see Marsh and Hocever 1985, Ping 2004). The results show an acceptable model fit, with χ^2 of 353.86 (d.f = 112), and the RMSEA of 0.098 (please see Table 5.9). The CFI, NNFI and GFI and all individual scale results for AVE and CR[4] from the second-order constructs returned acceptable values (Bagozzi and Yi 1988). Furthermore, following Matsuno, Mentzer and Ozsomer (2002), the reliability for domestic market-oriented behaviour and export market-oriented behaviour were also computed as they are a part of a single higher-order factor, however, they are measured at a first-order level. The coefficient alphas for domestic market-oriented behaviour and export market-oriented behaviour returned a highly acceptable score at 0.85 and 0.82 respectively.

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[4] Ping (2004) suggests that error variance and factor loadings of the first order factor can be used to calculate AVE and CR, hence the score should be similar for the constructs' first and second-order factors. On the other hand, Kumar, Sheer and Steenkamp (1995a) note that CR of the second-order constructs is not normally computed.

Figure 5.10: Second-order Factor for Domestic Market-Oriented and Export Market-Oriented Behaviour
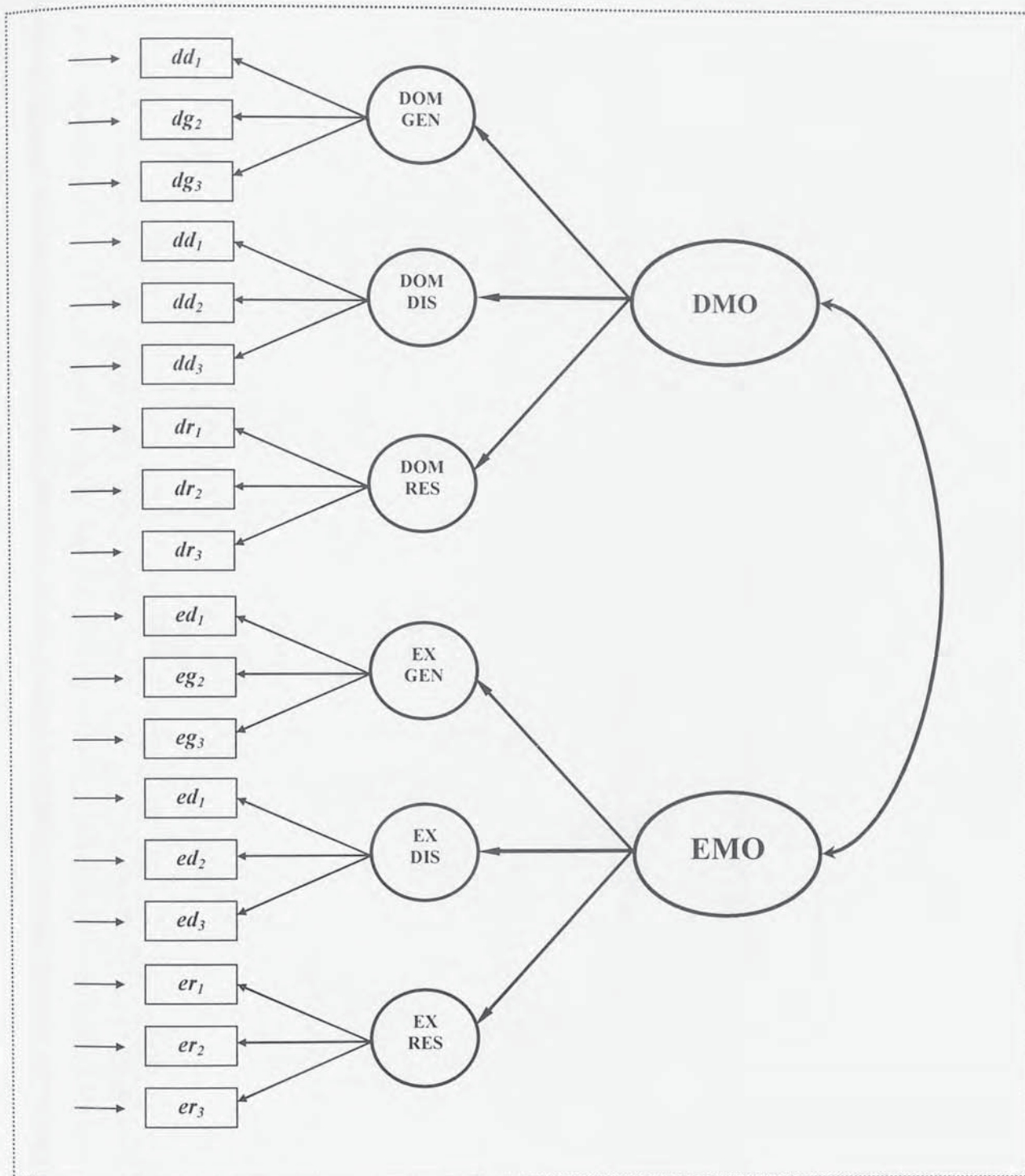
The path coefficient between the higher-order factors of domestic market-oriented behaviour and export market-oriented behaviour and the three corresponding components (i.e. γ) were all significant. Furthermore, all the path estimates between domestic market-oriented behaviour and export market-oriented behaviour facets (i.e. their first-order estimates or λ_i) were also significant at $\alpha = .05$ level. The full results are presented in Table 5.9.

Table 5.9: Second-Order Solution of Domestic Market-Oriented (DMO) Behaviour and Export Market-Oriented (EMO) Behaviour Scales

Second-Order Solution of DMO Behaviour Scale			
Measurement Items	DOMGEN	DOMDIS	DOMRES
DOMGEN1	0.78 (fixed)^a		
DOMGEN4	0.84 (10.05)		
DOMGEN6	0.60 (8.29)		
DOMDIS1		0.79 (fixed)^a	
DOMDIS2		0.87 (14.13)	
DOMDIS4		0.90 (14.51)	
DOMRES1			0.99 (fixed)^a
DOMRES3			0.71 (7.92)
γ^b	0.63 (7.15)	0.74 (8.87)	0.64 (9.01)
CR^c	0.79	0.89	0.84
AVE^c	0.55	0.73	0.73

Second-Order Solution of EMO Behaviour Scale			
Measurement Items	EXGEN	EXDIS	EXRES
EXGEN1	0.84 (fixed)^a		
EXGEN4	0.57 (8.02)		
EXGEN5	0.82 (10.53)		
EXDIS1		0.59 (fixed)^a	
EXDIS2		0.84 (8.84)	
EXDIS4		0.78 (8.57)	
EXDIS5		0.76 (8.45)	
EXRES1			0.77 (fixed)^a
EXRES3			0.86 (8.43)
γ^b	0.61 (7.18)	0.71 (6.86)	0.68 (7.12)
CR^c	0.84	0.81	0.81
AVE^c	0.64	0.53	0.69

Fit Indices: Chi Square =353.86; df = 112; RMSEA = 0.098; CFI = 0.88; GFI = 0.86; NNFI = 0.85; Coefficient Alpha =0.85 (DMO); 0.82 (EMO).

Note:

^{a}: fixed items do not return a t-value

^{b}: standardised factor loading for second-order constructs.

^{c}: CR and AVE were computed using the error variances (ζ's) and loadings (β) of the first-order constructs.

Combining the two results of the first-order and second-order factors, it was reasonable to conclude that the domestic market-oriented behaviour and export market-oriented behaviour scales have adequate unidimensionality, convergent validity and reliability thus could be used for model testing. Unfortunately, when compare to the first-order factor, the second-order factor was demonstrated to have a significant deteriorating model fit ($\Delta \chi^2 = 147.07$; Δ d.f. = 142)[5]. However, the decision as to whether to measure the instrument as a first-order or second-order structure should "ultimately rests on substantive meaningfulness as dictated by the underlying theory" (Byrne 1998, p. 189). Furthermore, Matsuno, Mentzer and Rentz (2000, p. 530) contend, "[the] CFA on a second-order factorial structure is a theoretically more constrained model because the relationships between the factors are specified on theoretical grounds". Thus, the second-order factor was retained in its present form and used as a factor structure for model testing purposes.

5.7.2 Group Two: Market Environmental Turbulence

The second CFA group consists of three environmental turbulence constructs with 10 indicators. The constructs are domestic market turbulence, export market turbulence, and differences in domestic and export market environments.
The first result indicated that there were two items with cross loadings and correlated errors thus requiring some respecification.

After one iterative model respecification process, one item of differences in domestic and export market environments was deleted. The final measurement model contained a three-item scale for each latent construct. The results are shown in Table 5.10.

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[5] Change in first order and second order factor. In the first order factor, difference in market-oriented behaviour across firms' domestic and export operations scale was excluded.

Table 5.10: CFA Results for Measurement Model Two

Items	Standardised Factor Loading (t-value)		
	DME	EME	ENVDiff
DME1	0.74 (fixed)[a]		
DME2	0.91 (9.42)		
DME3	0.68 (8.45)		
EME1		0.68 (fixed)	
EME2		0.58 (7.11)	
EME3		0.82 (8.22)	
ENVDiff1			0.77 (fixed)
ENVDiff2			0.47 (5.88)
ENVDiff3			0.78 (6.84)
CR	0.74	0.86	0.72
AVE	0.51	0.68	0.53

Fit Indices: Chi Square = 165.28; df = 104; RMSEA = 0.051; CFI = 0.95; GFI = 0.92; NNFI = 0.94

Note:
[a]: *fixed items do not return a t-value*
DME = Domestic Market Turbulence   EME = Export Market Turbulence
ENVDiff = Differences in Domestic and Export Market Environments

The CFA measurement for Group Two returned an excellent model fit, as can be observed from Table 5.10. The χ^2 statistic was significant at 165.28, and the RMSEA was 0.051. The fit indices as shown by CFI, GFI and NNFI were all excellent. For the individual scales, results also appear to be excellent where the AVE and CR scores were above 0.5 and 0.6 cutoff points respectively (Bagozzi and Yi 1988). Furthermore, the results also show that all factor loadings and t-values were significant. Taken the results together, all three constructs which reflect domestic market turbulence, export market turbulence and differences in domestic and export market environments posses unidimensionality properties and are suitable for hypothesis testing purposes.

5.7.3   Group Three: Organisational Performance

The third group of CFA model consists of four performance measures; domestic sales performance (a two-item scale), domestic profit performance (a three-item scale), export sales performance (a two-item scale), and export profit performance (a three-item scale). In order to run the model, the individual items underlying the scale were first standardized to remove the unit of measurement.

The initial results show inadmissible solution due to one domestic profit performance item (profit for year (n-1)) returned negative error variance (i.e., -0.03). This was solved by setting the error variance for that item at 0.05, however due to item fixing,

the degree of freedom was reduced by one. Apart from that, no single item was dropped from the analysis and no model respecification was undertaken. Overall, the CFA measurement for Group Three returned an excellent statistics, as can be observed from Table 5.11.

Table 5.11: CFA Results for Measurement Model Three

| | Standardised Factor Loading (t-value) | | | |
Items	Domestic Sales	Domestic Profit	Export Sales	Export Profit
DSG1	0.64 (fixed)[a]			
DSG2	0.75 (6.57)			
DPP1		0.81 (fixed)		
DPP2		0.98 (19.51)		
DPP3		0.84 (4.94)		
ESG1			0.48 (fixed)	
ESG2			0.93 (3.89)	
EPP1				0.81 (fixed)
EPP2				0.93 (15.04)
EPP3				0.77 (12.78)
CR	0.65	0.88	0.67	0.88
AVE	0.50	0.75	0.53	0.71

Fit Indices: Chi Square = 117.07; df = 29; RMSEA = 0.091; CFI = 0.94; GFI = 0.89; NNFI = 0.91

Note:
[a]: *fixed items do not return a t-value*

The χ^2 statistic was 117.07 (d.f. = 29), and the RMSEA was satisfactory at 0.091. The heuristic fit statistics were also excellent indicating that the data fit the model very well and show the presence of unidimensionality of the six constructs used in the model. The AVE and CP for the individual scale items were all above 0.5 and 0.6 respectively (Bagozzi and Yi 1988; Fornell and Larcker 1981). Furthermore, all factor loadings were significant and provide strong support about the quality of the performance measures used in this study.

5.7.4 Group Four: Interfunctional Interactions

Three variables concerning the antecedents to differences in market-oriented behaviour levels across firms' domestic and export operations constructs were grouped together and run into one single CFA model for unidimensionality and convergent validity assessment. The constructs are, domestic marketing dependence, export marketing dependence, and interfunctional interactions. As presented in Table 5.12 the overall model results for Group Four are highly satisfactory. No item was removed from all the constructs. The χ^2 statistics was 53.99 (d.f. = 32) and the RMSEA was 0.055. Additionally, the fit heuristic also show an excellent model fit. For the individual measures, all measures have strong AVE and CP (Bagozzi and Yi 1988; Fornell and Larcker 1981). Nonetheless, all factor loadings returned significant t-values. Thus, the scales are suitable for the next stage of analysis.

Table 5.12: CFA Results for Measurement Model Four

Items	Standardised Factor Loading (t-value)		
	Interfunctional Interactions	Domestic Marketing Dependence	Export Marketing Dependence
INTERACTIONS 1	0.68 (fixed)[a]		
INTERACTIONS 2	0.89 (11.82)		
INTERACTIONS 3	0.91 (11.96)		
INTERACTIONS 4	0.80 (10.85)		
DOMDEP 1		0.89 (fixed)	
DOMDEP 2		0.98 (23.36)	
DOMDEP 3		0.88 (19.46)	
EXDEP 1			0.70 (fixed)
EXDEP 2			0.93 (9.04)
EXDEP 3			0.72 (8.95)
CR	0.89	0.93	0.80
AVE	0.68	0.84	0.57

Fit Indices: Chi Square = 53.99; df = 32; RMSEA = 0.055; CFI = 0.98; GFI = 0.95; NNFI = 0.98

Note:

[a] *fixed items do not return a t-value*

5.8   CREATING MEASUREMENT INDEX

5.8.1   Domestic Market-Oriented and Export Market-Oriented Behaviour Measures

For subsequent measurement model evaluation and hypothesis testing, the domestic market-oriented and export market-oriented behaviour scales as computed as the sum of the scores for the three indicators (domestic intelligence generation, domestic intelligence dissemination and domestic intelligence responsiveness) at the first-order constructs (c.f. Cadogan, Diamantopoulos and deMortanges 1999; Kohli, Jaworski and Kumar 1993). Matsuno and Mentzer (2000) argue that the aggregation of the scale at the first-order construct level is justified because (1) the validity of the second-order scale has been established; (2) given the sample size, aggregation allows maximisation of the degree of freedom in estimating the path coefficients between the second-order constructs (exogenous latent variable) with other exogenous latent variables such as on performance and (3) it reduces higher levels of random error while accounting for measurement error and retaining the three dimensional scale of market-oriented behaviour.

Furthermore, since each scale score was computed as the average item score for that scale (see Bandolos 2002; Hagtvet and Nasser 2004; Little et al. 2002; Kim and Hagtvet 2002), each of the scale had an equal weighting in the final domestic market-oriented behaviour score. Similar procedures were used to compute export market-oriented measure where the export generation of market intelligence, export market intelligence dissemination, and export market responsiveness items were averaged at their individual construct before averaging them to get one export market-oriented behaviour score.

5.8.2   Domestic Market Turbulence and Export Market Turbulence

A single score each for domestic market turbulence and export market turbulence were constructed by taking the mean score of the measures.

5.8.3 Performance Measures

Domestic sales performance consists of two indicators; absolute sales growth performance and firm's average sales growth compared to the industry average. The absolute sales growth, however, has a highly skewed distribution (skewness = 5.064; kurtosis = 48.636), hence a log transformation was undertaken. Before transforming the data, all growth scores were added by 100 in order to make the values positive (the original score range from -90 to 300). The log score was then standardised in order to remove the unit of measurement. The new standardised sales growth response was then summed with a standardised score of the firm's average sales growth in order to create a single composite score to measure domestic sales efficiency. Similar steps were followed to create a single score for export sales performance. These two scores then were weighted against firm's export dependence in order to incorporate their relative importance to the scales, and finally summed to create a single score of overall sales performance. Overall profit performance were created in similar fashion where the mean score of domestic profit performance were multiplied by domestic dependence (i.e., 1- export dependence) and summed with export profit multiplied with export dependence. Please refer to Section 4.3.5. for the formulae used to measure overall sales performance and overall profit performance).

5.8.4 Mutual Dependence Measure

Mutual dependence measure consists of two dimensions; domestic marketing dependence and export marketing dependence. Scores of each of these subcomponents were then calculated. A single score of mutual dependence was obtained by averaging scores across the two measures.

5.8.5 Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations Measure

Differences in market-oriented behaviour levels across firms' domestic and export market was measured using a six-point rating-type scale anchored at 1 = Export Marketing Superior and 6 = Domestic Marketing Superior. The mid-point (of no difference) was not available, but would theoretically occur at 3.5 on this scale. However, in order to test hypothesis 1 through hypothesis 6, an absolute measure of the degree of difference in market-oriented behaviour across firms' domestic and export markets is needed. As such, a scale transformation is required in order to translate the measure to determine the level of firms' differences (or similarity) in their market-oriented behaviour. As the scale has a (theoretical) midpoint of 3.5, all the scale items were then deducted by this value. The new measure now has the following range:

$$-2\frac{1}{2} \quad -1\frac{1}{2} \quad -\frac{1}{2} \quad 0 \quad \frac{1}{2} \quad 1\frac{1}{2} \quad 2\frac{1}{2}$$

Note:

- The zero (0) value is a theoretical value.

- The score of -2 ½ corresponds to the score of 1 used in the questionnaire (Export Marketing Superior) and the score of 2 ½ corresponds to the score of 6 (Domestic Marketing Superior).

Finally, by taking the absolute values of the scores, all minus values became positive. The new measure now simply shows variance in terms of whether differences in market-oriented behaviour across firms' domestic and export operations exist. The score for each individual scale item ranges from ½ to 2 ½. The new scale suggests that firms which have high domestic market-oriented behaviour and low export market-oriented behaviour (and vice versa) would have high difference score, and firms which have about he same levels of market-oriented behaviour levels in their domestic and export operations would have a score closer to zero.

5.8.6 Differences in Domestic and Export Market Environments Measure

Differences in domestic and export market environments were measured using semantic differential type scales. The construction of the scale was performed in an almost similar way as the differences in market-oriented behaviour levels across firms' domestic and export operations. First, all individual differences in domestic and export market environments scores were deducted by 4 (i.e. the midpoint of the scale). After this procedure the new score for each item ranged from -3 to 3. Then the absolute value of the score was taken and this gave the scale a new score that ranged from 0 to 3. A value of zero means that the final items have about the same turbulence in both domestic and export markets, while a score of 3 showed that the environmental turbulence was very different across the domestic and export markets. Score of differences in domestic and export market environments was obtained by averaging each of the relevant score items.

5.8.7 Market Dominance Measure

The single score for the market dominance was obtained in the following ways. First, using the export dependence scale (ranging from 0 to 100%), the score was first deducted by 50 (the midpoint). The absolute score was then obtained in order to provide the information about how far the firm's score deviate from 0. This is because a score of zero indicates that domestic and export markets have equal weight while a high score (for example 45) means that one market (either domestic or export) is more dominant over the other.

5.8.8 Strategic Symmetry

The single score of the strategy symmetry was created by comparing the firm's business strategy in the domestic and export operations. If a firm adopts a similar strategy archetype in its domestic and export operations, it is assumed that the firm has a strategic symmetry. A strategic asymmetry is a situation where firm adopts a different strategy archetype across its domestic and export operations.

5.8.9 Other Measures

Apart from the seven measures discussed above, all other measures used in this study have only one construct. They also utilize similar type of rating scales and hence to compute a single score, each respondent's score on each construct was computed as the average of the sum of scores of response to each item. Measures that follow this procedure include interfunctional interactions, domestic market turbulence and export market turbulence.

5.9   VALIDITY

Through CFA procedures, some aspects of validity can be assessed using measures like average variance extracted and composite reliability. All measures used in this study also have AVE and CP exceeding 0.5 and 0.6 respectively. The results of CFA also indicate that all items are significantly related to their hypothesized factors without cross loadings ($p < .01$), thus providing additional evidence of convergent validity. Furthermore, the two new scales (differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments) also appear to have coefficient alpha of greater than 0.7 which implies good convergent validity (Ping 2004). In the following section, all measures used in the previous CFA models will be assessed for their discriminant validity and criterion-related and nomological validity.

5.9.1   Discriminant Validity Analysis

Further analysis was conducted to assess the measurement models to check for the discriminant analysis. This is because there were four separate CFA models tested and it was particularly important to check whether all measures have discriminant validity when compared across the four models.

The discriminant validity of the measures was assessed in two ways. First, as shown in Table 5.13, none of the 95 percent confidence intervals of the individual elements of the latent factor correlation matrix contained a value of 1.0 (see Anderson and Gerbing

1988). Furthermore, the correlation with other measures was all below |0.7| (Ping 2004) suggesting evidence of measures distinctness and thus discriminant validity.

Second, a series of two-factors CFA models each involving possible fair of constructs were conducted. Altogether 66 (i.e. [12 x 11] ÷ 2 = 66) tests were conducted. A χ^2 difference test was then performed (Bagozzi and Phillips 1982, Gerbing and Anderson 1988) by assessing the change in χ^2 for change in one degree of freedom (the critical value for one degree of freedom is 3.84). In the first model, ϕ coefficient was constraint to 1.0 and then reestimated freely in the second model. In all cases, the model with free ϕ coefficient was found to be superior to the model with fixed ϕ coefficient. A construct displays discriminant validity if there is statistically significant difference between the models. The results of the nested model testing for discriminant validity is presented in Table 5.13 below where the change in χ^2 for all the constructs were above the critical value for one degree of freedom.

As shown in Table 5.13, all constructs display significant results where χ^2 is above 3.84 hence have significant discriminant validity according to nested model tests. All constructs were shown to have satisfactory requirement and ready for model testing subjected to descriptive analysis and is presented in the following section.

Table 5.13: Convergent Validity and Correlation Matrix

Constructs	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. MODiff		59.223	14.502	35.554	33.267	21.084	21.561	12.68	18.291	22.568	19.214	32.985
2. Interactions	-.269		62.251	9.165	19.251	33.124	25.660	25.411	36.574	45.651	25.894	22.221
3. Strategy Symmetry	.329	-.151		36.002	10.005	27.236	9.881	14.238	28.214	22.240	42.594	17.641
4. Dependence	-.275	.356	-.171		45.655	20.911	62.332	36.295	11.651	45.214	36.587	13.894
5. Market Dominance	.316	-.099*	.183	-.216		17.254	41.101	54.112	22.005	35.007	24.100	9.016
6. ENVDiff	.324	-.013*	.137	.067*	.141		17.566	30.440	33.524	23.580	19.236	42.714
7. DMO	.100*	.164	.056*	.026*	.013*	.078*		6.680	22.641	31.081	16.33	23.001
8. EMO	-.267	.278	-.171	.248	-.134*	.012*	.561		36.522	56.272	21.25	42.361
9. UK Environment	.214	-.169	.212	-.175	.123*	.139	.120*	.071*		5.251	39.694	21.094
10. Export Environment	-.153	.081*	-.068*	.172	-.175	.154	.093*	.243	.298		36.441	13.891
11. Overall Sales	.029*	.146	-.002*	.110*	.094*	.08*	.370	.319	.047*	-.026*		17.230
12. Overall Profit	.052*	.075*	.042*	.020*	-.164	-.023*	.206	.193	.128*	-.070*	.382	

Note:

Above diagonal are change in chi-squares (non-significant at flagged)

Below diagonal are correlations (non-significant at flagged)

MODiff = Differences in market-oriented behavior levels across firms' domestic and export operations

Interactions = Interfunctional interactions

Strategy Symmetry = Interfunctional strategic symmetry

Dependence = Interfunctional interdependence

ENVDiff = Differences in domestic and export market environments

DMO = Domestic market-oriented behaviour

EMO = Export market-oriented behaviour

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5.9.2   Criterion and Nomological Validity

It was argued earlier (section 5.3.6), criterion and nomological validity for the new constructs could be evaluated through the presence of association between variables of interest. Based on the two theoretical models developed in Chapter Three, the variables of interest were subjected to correlation analysis. Specifically, the theoretical evidence point to the association between interfunctional interactions, mutual dependence, market dominance, and differences in domestic and export market environments on differences in market-oriented behaviour levels across firms' domestic and export operations.

Table 5.14: Nomological validity for Difference in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations and Differences in Domestic and Export Market Environments

Scale	Difference in Market-Oriented Behaviour
Interfunctional Interactions	-0.269*
Mutual Dependence	-0.275*
Market Dominance	0.316*
Differences in Domestic and Export Market Environments	0.324*
Relationship significant at 5% (one tailed test)	

The results from the analysis show that all constructs have significant correlations with difference in market-oriented behaviour levels across firms' domestic and export operations (see Table 5.14). This is adequate to provide criterion and nomological support for the scale. Furthermore to validate the difference in market-oriented behaviour across firms' domestic and export operations developed in this study, the scale was also subjected to correlation analysis with a difference score of domestic market-oriented behaviour and export market-oriented behaviour (i.e. deducting domestic market-oriented behaviour score from export market-oriented behaviour score). Further test was conducted to assess the nomological validity of this scale. The correlation between the newly developed differences in market-oriented behaviour across firms' domestic and export operations scale and the difference score of domestic market-oriented behaviour and export market-oriented behaviour scale (i.e. |Domestic market-oriented behaviour – Export market-oriented behaviour|) was examined. The result shows a significant Pearson correlation between the two variables ($r_p = 0.379$, $p = 0.000$) thus, further support the nomological validity of the

differences in market-oriented behaviour levels across firms' domestic and export operations scale. Further evidence can be found in the next chapter when the relationships between the variables are rigorously tested.

The result also shows that the differences in domestic and export market environments has a significant correlation with differences in market-oriented behaviour across firms' domestic and export operations measures as the theory suggests (see Section 3.3.5). Similar to the differences in market-oriented behaviour measure, the differences in domestic and export market environments difference measure was also subjected to further nomological test. The correlation between this new measure with the absolute score of domestic and export environment (i.e. |domestic market turbulence − export market turbulence|) was analysed. It was found that the Pearson correlations ($r_p =$ 0.224) between the two score was highly significant at 0.01 level, thus strengthening the validity of the measure.

5.10 DESCRIPTIVE ANALYSIS OF INDIVIDUAL SCALES

The final procedure in assessing the construct is through descriptive analysis. This was done in order to assess whether all the measures used in this study were appropriate for model testing using advance statistical modeling technique. Attention was given to the distribution characteristics of the measures, and whether the hypothesis that the observed distribution differs from normal distribution was supported in the final scales. The Kogomorov-Smirnoff (KS) test was used and a nonsignificant KS result signifies that the distribution was approximates normality (Hair et al. 1998). However, it has been argued that KS test is extremely sensitive to any small deviation from normality. Another way to examine the normality of the distribution is by computing the Z-values of the skewness and kurtosis of the scale (Sharma 1996). If the Z-values are less than the critical value of 1.96 for an alpha level of .05, it can be concluded that the distribution of the scale is normal. Furthermore, given the sample size for this study, the proposed structural equation modeling with Maximum Likelihood is robust for

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model testing if the skewness and kurtosis of the data do not go beyond the extreme value[6] (Chou and Bentler 1995).

5.10.1 Differences in Market -Oriented Behaviour Levels Across Firms' Domestic and Export Operations

It appeared that the differences in market-oriented behaviour levels across firms' domestic and export operations scale as presented in Figure 5.11 (for the original scale) and Figure 5.12 (for the transformation scale) show the data is normally distributed. Nevertheless, this is supported by a KS test that returned a nonsignificant result suggesting no significant deviation from normality. The scale range was large with a minimum of 1 (and 0.5) and a maximum of 6 (and 2.5). As a result, the measure of differences in firms' differences in market-oriented behaviour levels across their domestic and export operations was considered to display sufficient characteristics for inclusion in future analyses as it stands.

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[6] West, Finch and Curran (1995) suggest that skewness of above 3 and kurtosis of exceeding 21as extreme departure from normality.

Figure 5.11: Differences in Market-oriented Behaviour Levels Across Firms' Domestic and Export Operations Frequency Distribution (Original Scale)

Std. Dev = .80
Mean = 4.21
N = 225.00

Differences in Market-Oriented Behaviour
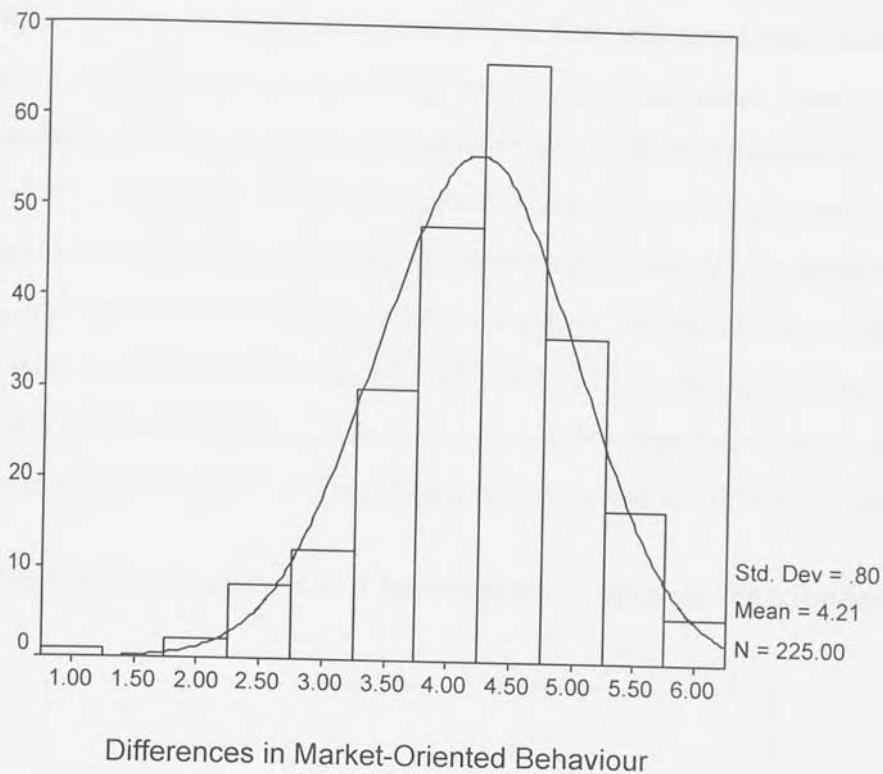
Figure 5.12: Differences in Market-oriented Behaviour Levels Across Firms' Domestic and Export Operations Frequency Distribution (Transformation Scale)

Std. Dev = .48
Mean = 1.07
N = 225.00

Differences in Market-Oriented Behaviour

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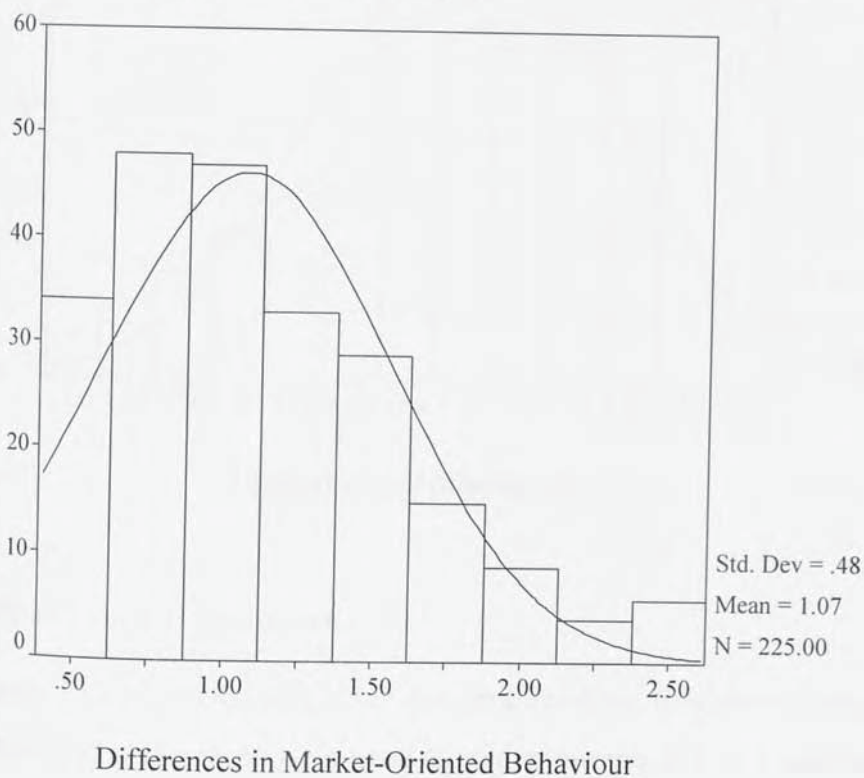
5.10.2 Interfunctional Interactions

Figure 5.13 presents the histogram for the final interfunctional interactions scale, which did not indicate any missing values. The scale mean value was 4.10, and standard deviation of 1.07. The response ranged from a minimum of 1 to a maximum of 7. As can be seen, the distribution was skewed to the right, and appeared normally distributed. However, a KS test returned a significant results suggesting that further insights were needed to access the normality of the scale. The variable returned skewness and kurtosis values of -0.62 and -0.15 respectively. The Z-score for kurtosis was 0.467 (i.e. -0.15/0.323) thus provide support that the variable was normally distributed (Sharma 1996) and hence the scale was retained in its present form.

Figure 5.13: Interfunctional Interactions Frequency Distribution

Interfunctional Interaction
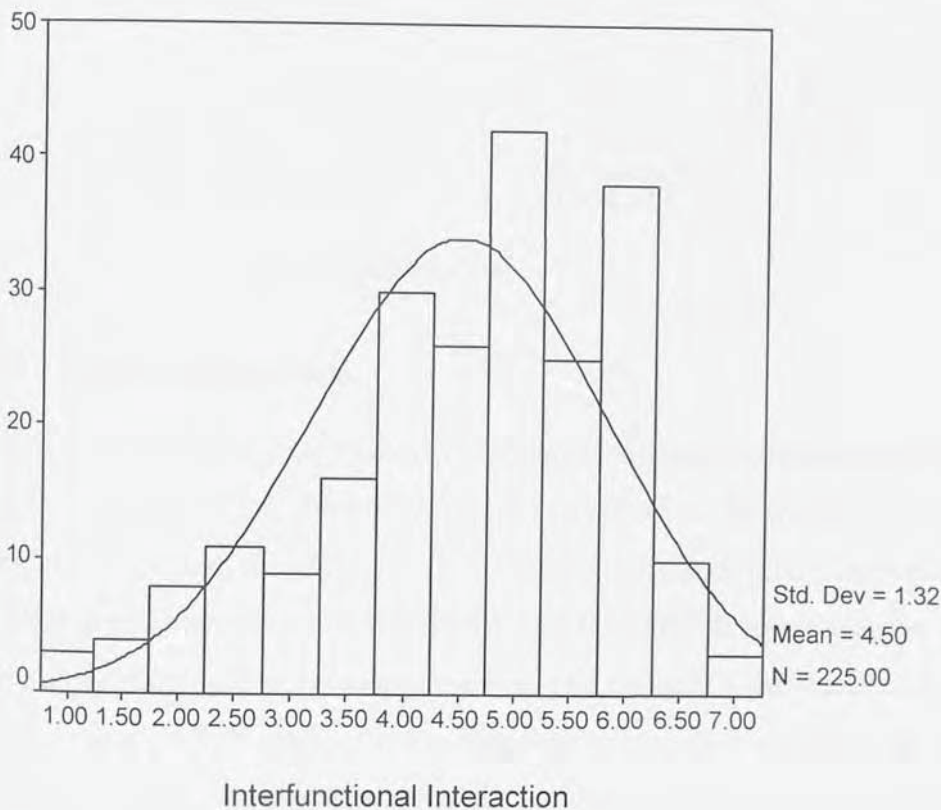
5.10.3 Mutual Dependence

Figure 5.14 shows the frequency distribution of the final mutual dependence scale used in this study. The response ranged from a minimum of 1 to a maximum of 7. The scale mean value was 4.87 which was higher than the mid-scale point of four. The

distribution scale appeared normally distributed (mean = 4.06). Furthermore, the KS test also returned a nonsignificant result, thus the scale was not subjected to any form of transformation.

Figure 5.14: Mutual Dependence Frequency Distribution

Std. Dev = 1.07
Mean = 4.1
N = 225.00

Mutual Dependence
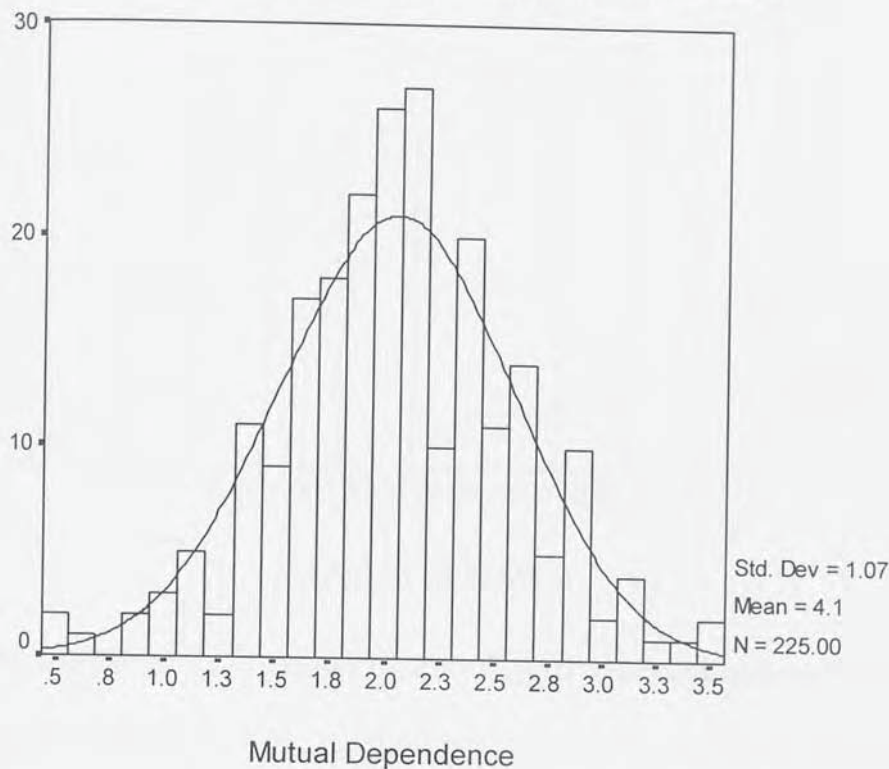
5.10.4 Market Do minance

Figure 5.15 shows the frequency distribution of the market dominance distribution, and four missing values were observed. As can be seen, the mean value was 24.91 and the standard deviation was 14.21 while the minimum and maximum were 0 and 46.1. A KS test was performed and returned a significant result suggesting the distribution had a significant deviation from normality. The variable's skewness was −0.215 and kurtosis was 1.205, thus suggest the distribution was not normally distributed. Neither of these values appears to be problematic for used in the hypotheses testing. Thus, the scale was not subjected for any transformation and appeared satisfactory for further use.

Std. Dev = 14.21
Mean = 24.91
N = 221.00

Market Dominance
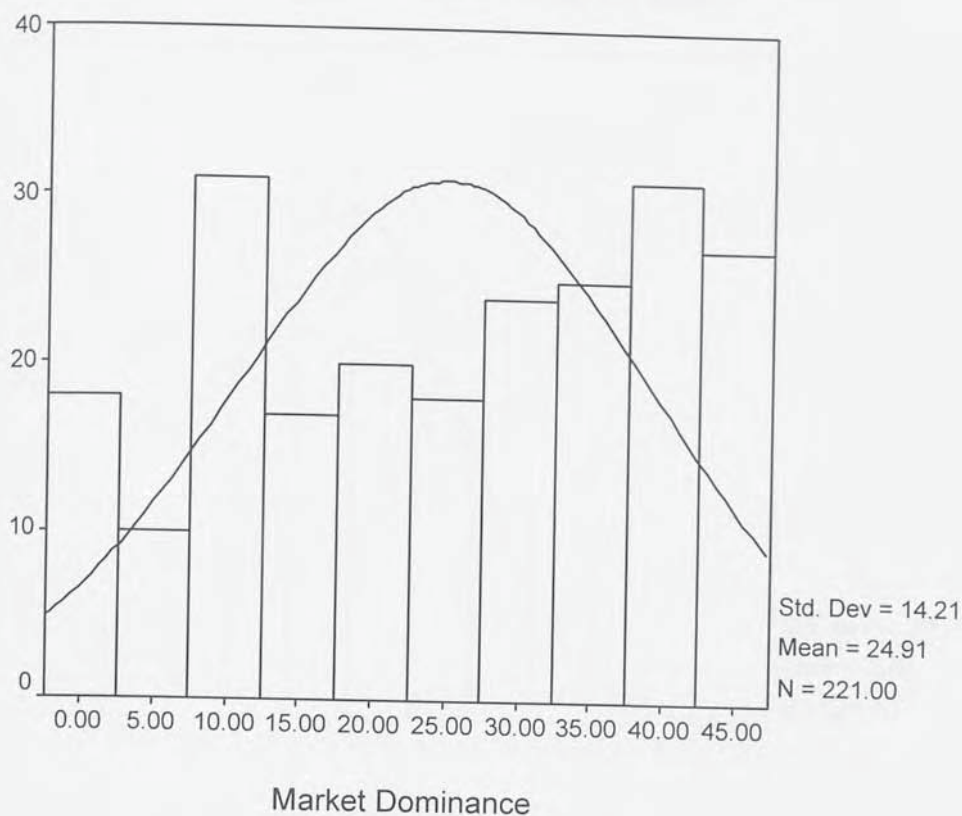
5.10.5 Differences in Domes tic and Export Market Environments

Figures 5.16 and 5.17 display the frequency distribution of the differences in domestic and export market environments scale, and no missing value was observed. The distribution was skewed towards lower values and the mean score of the variable was at 3.67 and 1.07 respectively. Nevertheless, a nonsignificant KS test was returned, suggesting that the scale was normally distributed. As a result, the differences in domestic and export market environments scale appeared to display sufficient characteristics for inclusion in the next stage of analysis as it stands.

Figure 5.16: Differences in Domestic and Export Market Environments Frequency Distribution (Original Scale)

Std. Dev = .97
Mean = 3.67
N = 225.00
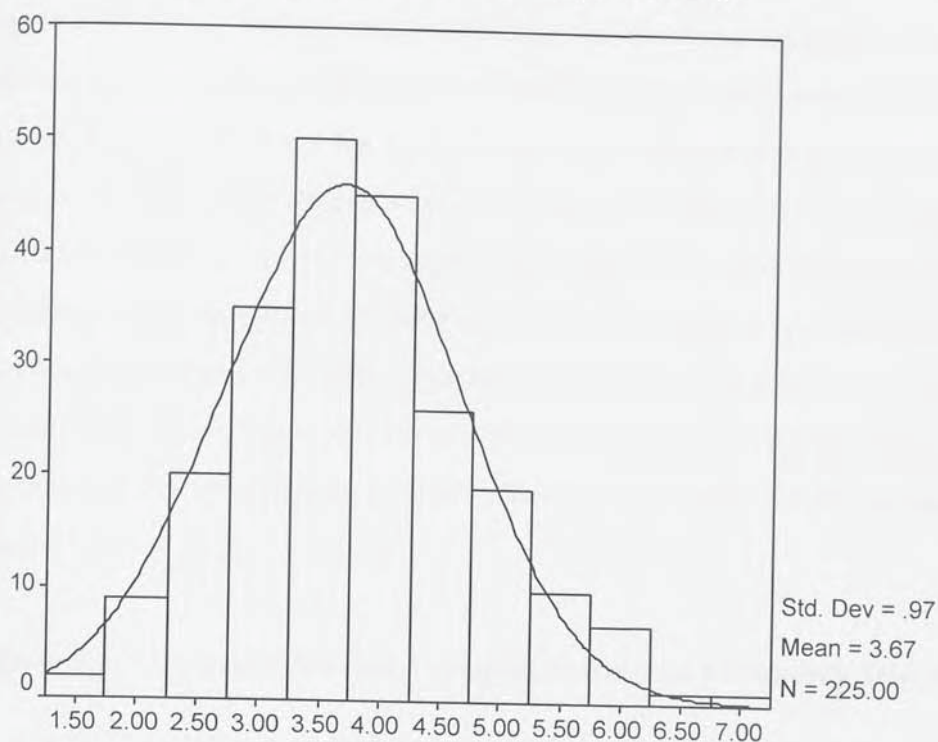
Differences in Domestic and Export Market Environments

Figure 5.17: Differences in Domestic and Export Market Environments Frequency Distribution (Transformation Scale)

Std. Dev = .56
Mean = 1.07
N = 225.00

Differences in Domestic and Export Market Environments

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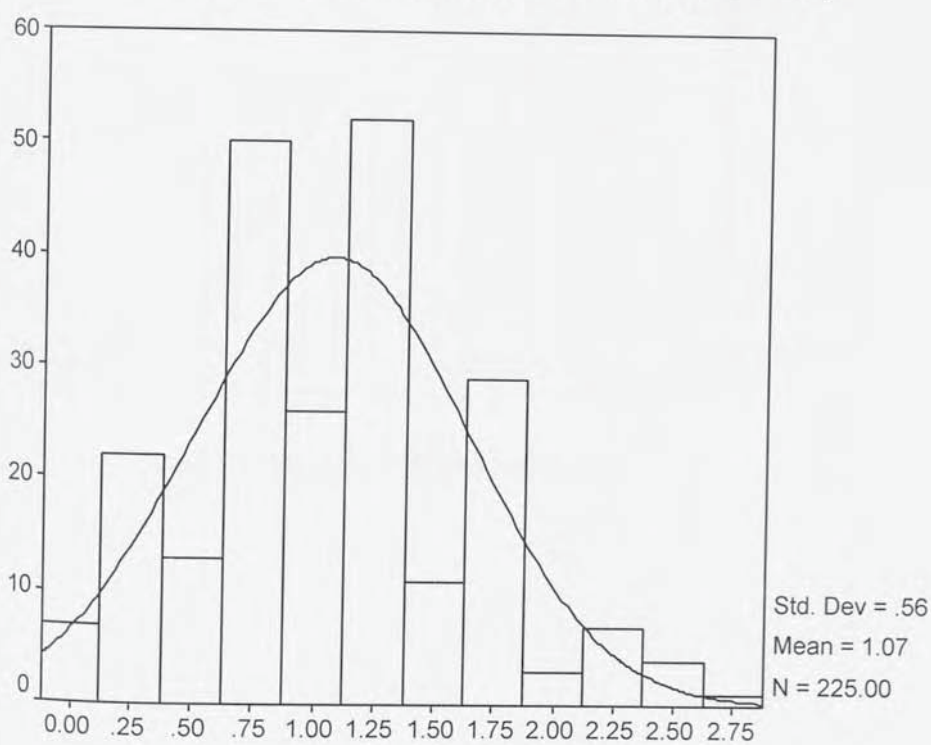
5.10.6 Domestic Market-Oriented Behaviour

Figure 5.18 shows the frequency distribution of the domestic market-oriented behaviour scale, and no missing value was observed. The distribution was skewed towards higher values and the mean score of the variable was slightly above the midpoint score at 5.09 (response ranged from minimum of 2.11 to maximum of 6.89). A KS test returned a nearly nonsignificant result ($p = 0.046$) suggesting that the distribution was very close to normality. A further analysis revealed that the skewness and kurtosis values for domestic market-oriented behaviour were at -0.83 and - 0.54 respectively. The Z-score for kurtosis was 1.68 (i.e. 0.54/0.32) and thus provide support that the variable was normally distributed (Sharma 1996) and hence the scale was retained in its present form.

Figure 5.18: Domestic Market-Oriented Behaviour Frequency Distribution

Domestic Market-Oriented Behaviour

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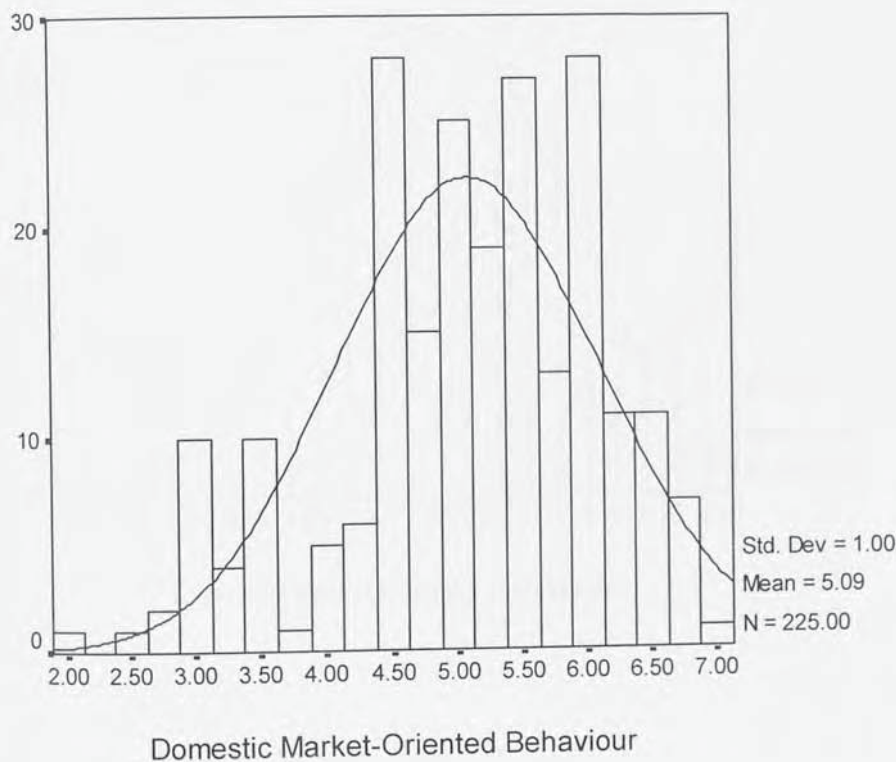
5.10.7 Export Market-Oriented Behaviour

The distribution of export market-oriented behaviour is presented in Figure 5.19. The mean was 4.47, with the scale ranging from a minimum of 1.28 to a maximum of 6.67. This result suggests that the majority of respondents indicated the level of export market-oriented behaviour in the firm moderate or better with very few firms having a very low or very high level of export market-oriented behaviour. The distribution also appears to approximate closely to normality. This is supported by KS test which shows that the distribution was nonsignificant, thus normality of the export market-oriented behaviour measure was assumed.

Figure 5.19: Export Market-Oriented Behaviour Frequency Distribution

Std. Dev = 1.02
Mean = 4.47
N = 225.00

Export Market-Oriented Behaviour
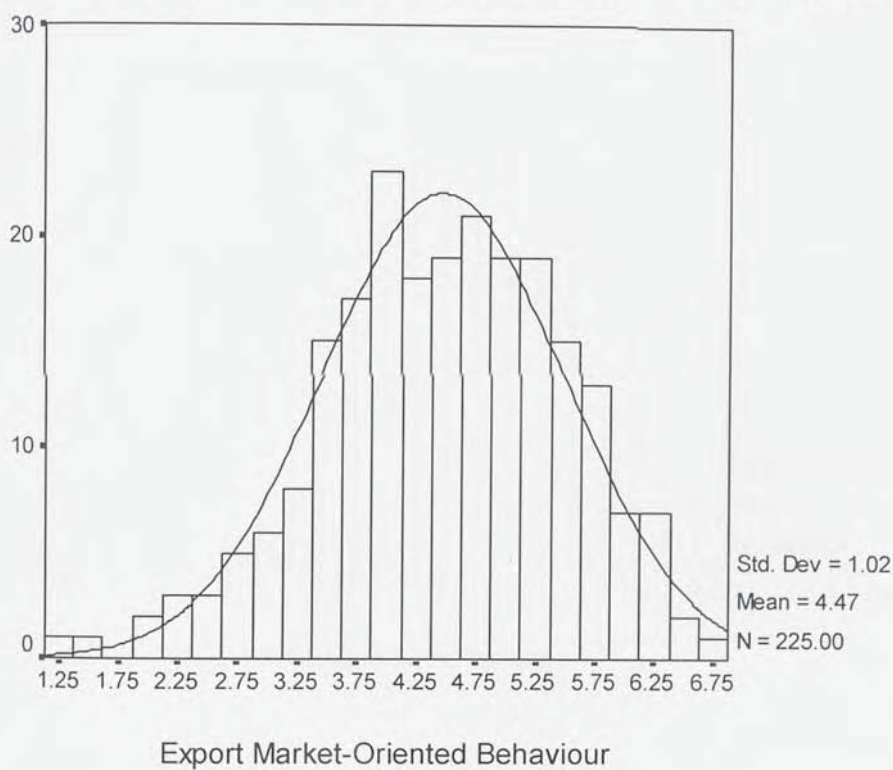
5.10.8 Do mestic Market Turbulence

No missing value was evident in the distribution of the domestic market turbulence scale, which is graphically presented in Figure 5.20. The KS test also showed a significant result, with the mean below the mid-point scale. Since the distribution appeared normal, with kurtosis of -0.48 and skewness of -0.32 is within an acceptable range, the scale appeared suitable for use for the next stage of analysis.

Figure 5.20: Domestic Market Turbulence Frequency Distribution

Std. Dev = 1.26
Mean = 3.76
N = 225.00

Domestic Market Turbulence
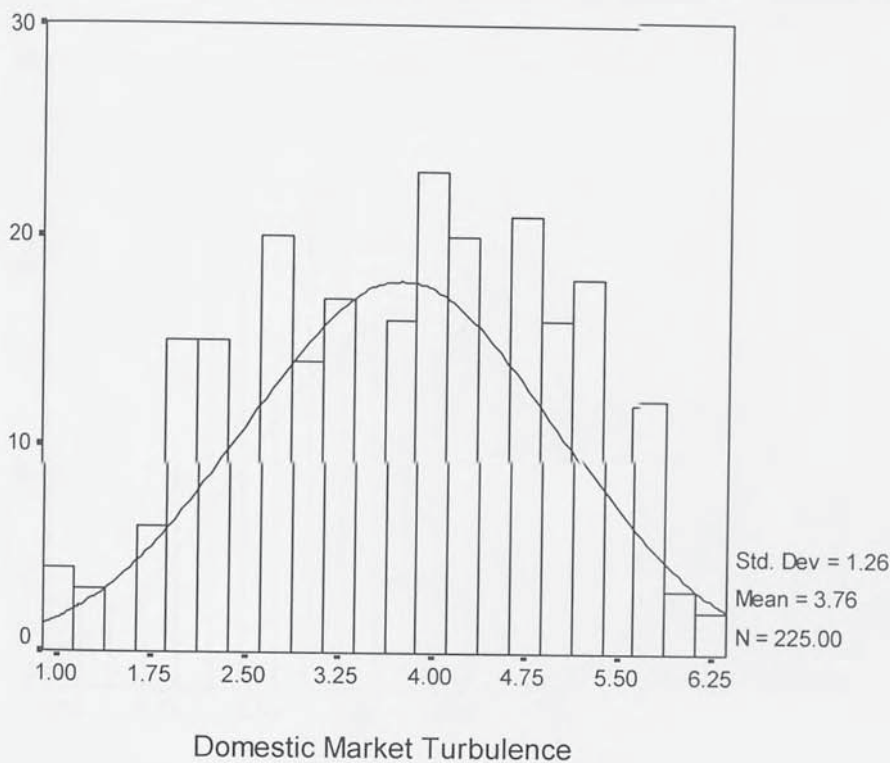
5.10.9. Export Market Turbulence

Figure 5.21 displays the frequency distribution of the export market turbulence scale, and no missing value was observed. The mean value of 3.65, was slightly lower than the neutral mean of 4, while the minimum and maximum were 1 and 6 respectively. A KS test was performed and it returned a nonsignificant result suggesting no significant deviation from normality. As a result, the export market turbulence measure displays sufficient robustness to be utilised for model testing.

Figure 5.21: Export Market Turbulence Frequency Distribution

Std. Dev = 1.23
Mean = 3.65
N = 225.00

Export Market Turbulence
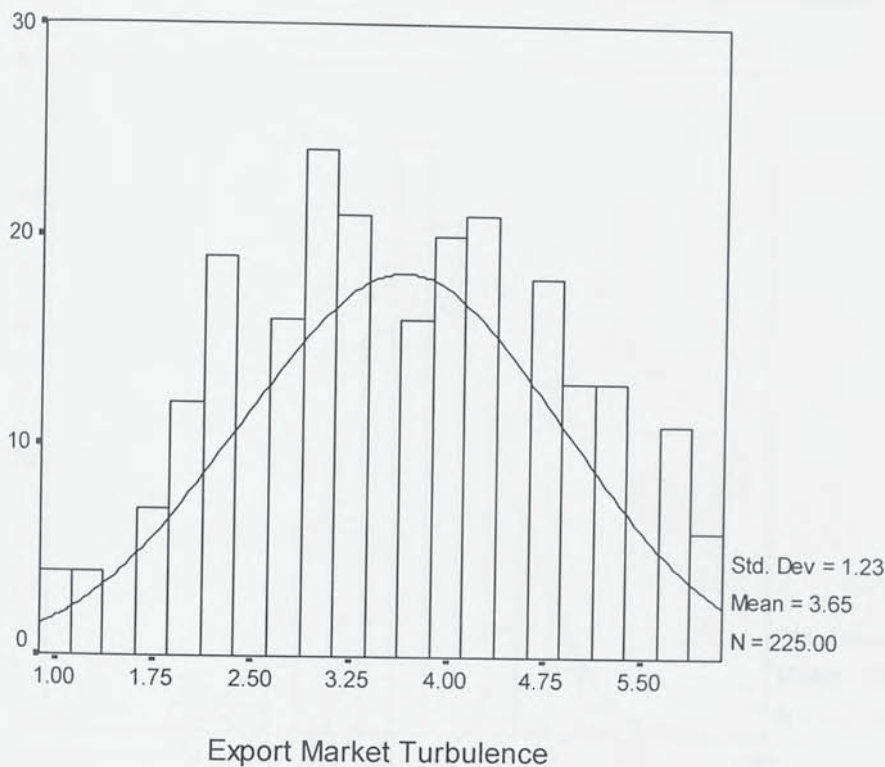
5.10.10 Overall Sales Performance

Export sales performance consists of two items; the absolute annual percentage of sales growth during the past three years and a single item of the firm's average annual sales growth compared to the industry average, and the procedure to create the single scale was presented in Section 4.3.2.6. Figure 5.22 presents the frequency distribution of the final scale of overall sales performance. Values ranged from −1.35 to 1.43 (standard deviation = 0.34) and returned a nonsignificant KS result, thus the scale was suitable to use for model testing.

Figure 5.22: Overall Sales Performance Frequency Distribution

Std. Dev = .34
Mean = .05
N = 221.00

Overall Sales Performance
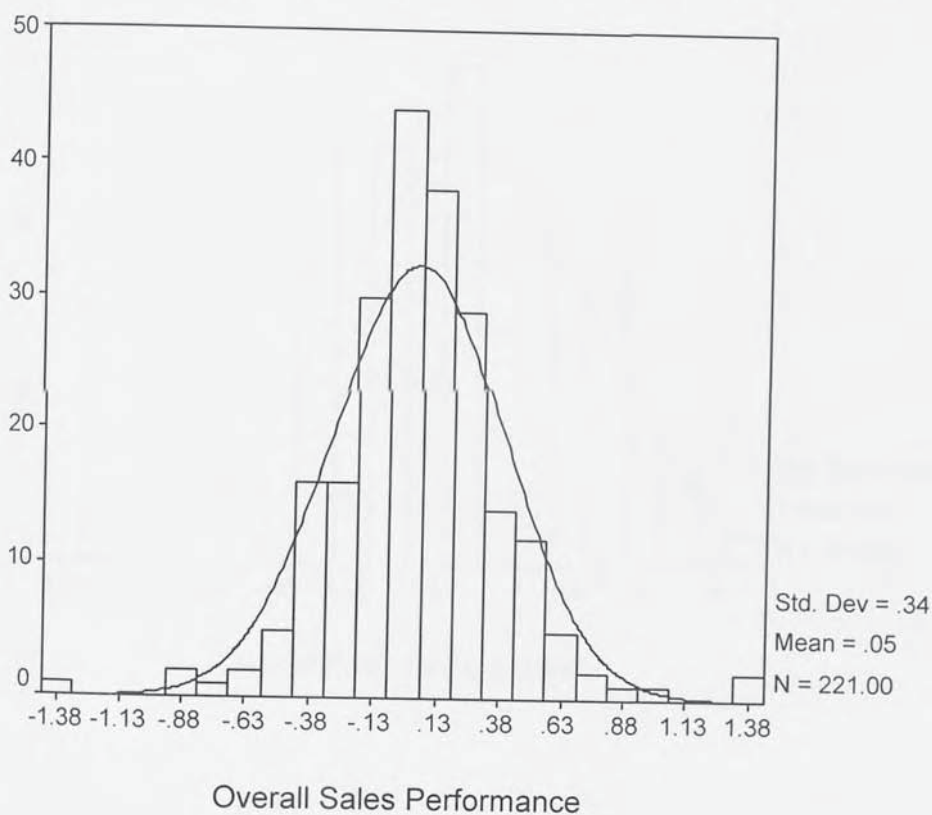
5.10.11 Overall Profit Performance

Figure 5.23 displays the frequency distribution of the overall profit performance measure, and four missing values were observed. The scale median was 0.005 and the response ranged from a minimum of -1.32 to a maximum of 1.051. As can be seen, the distribution appears normally distributed and this was supported by a non significant KS test.

Figure 5.23: Overall Profit Performance Frequency Distribution

Overall Profit Performance

Std. Dev = .44
Mean = .00
N = 221.00
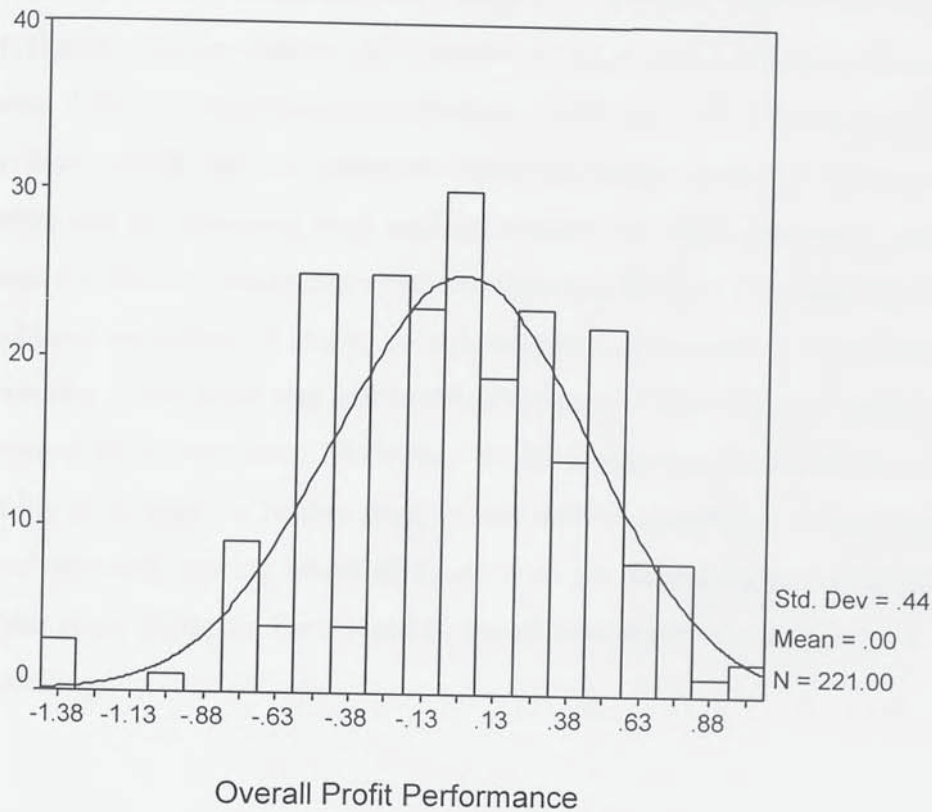
5.11 SUMMARY

The purpose of this chapter was twofold. The first was to provide descriptive measures to the key variables of interest in the study. It was shown that firms from all sizes and business background were represented in the sample. The exporting firms in the sample also export to various export markets thus expose themselves to different kinds of business and environmental pressures.

Secondly, the aim was to construct and purify measures used in this study including developing two new scales; differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments scales. All measures were subjected to thorough analysis and it has been shown that the measures were unidimensional, internally consistent, and demonstrate construct validity. Measures were also assessed for their discriminant validity and no problems were noted. Finally, a single measure of the scale was constructed, and normality of the scale was assessed and the results show that normality could be assumed for all measures. Therefore, the measures were found to have sufficient quality to be used for further analysis and used in hypothesis testing. The next chapter involved model testing where all hypotheses developed in the conceptualisation stage of this study (Chapter Three) will be tested simultaneously using structural equation modelling.

CHAPTER 6

RESULTS OF THE STUDY

6.1 INTRODUCTION

In Chapter 3 it was proposed that there exist differences in firms' market-oriented behaviour levels across their domestic and export operations. Then a model that identifies five key drivers that contribute to such differences was developed. The identified factors are interfunctional interactions, interfunctional strategic symmetry, mutual dependence, market dominance, and differences in domestic and export market environments and they act as antecedents to differences in market-oriented behaviour levels across a firm's domestic and export operations. It was also suggested that firms' differences in market-oriented behaviour levels across their operations would affect their overall sales and overall profit performance. This chapter will describe the multivariate analysis techniques used to assess the hypotheses discussed in Chapter 3.

The chapter is structured in the following way. First, the structural equation modelling technique used for the analysis is described. Second, the hypothesis concerning firms' differences in market-oriented behaviour levels across their domestic and export operations is presented. This is followed by model testing of the antecedents to market-oriented behaviour levels across a firm's domestic and export operations. Fourth, the consequences of domestic market-oriented and domestic market-oriented behaviour on organisational performance are examined and the results outlined. Finally, the results are discussed and summarised.

6.2 MODEL TESTING USING STRUCTURAL EQUATION MODELLING TECHNIQUES

Following the guidelines in the literature (e.g., Hair, Anderson, Tatham et al. 1998; Hoyle 1995; West, Finch and Curran 1995) the data was analysed with the assumptions underlying structural equation modelling met. Four major assumptions are

normally required in order to draw conclusions about the structural models, namely; normality, continuous, linearity, and independence. Under the assumption of normality, it was assumed that the data as well as the individual constructs were normally distributed. Evidence of normality of the data for this study has been provided in Section 5.10 and the patterns, histogram distribution and KS tests indicate that the assumption of normality for this study is within an acceptable level. Nevertheless, in general, SEM approaches are relatively robust regarding modest departures from normal distribution (Chou and Bentler 1995; Hoyle 1995; West, Finch and Curran 1995).

It is also assumed that data used in this study is continuous. For the majority of the rating scales used here, it is reasonable to assume that a continuous variable underlies each measurement scale. The assumption of linearity has been a common feature in market orientation studies especially when analysing the latter's relationship with performance. Therefore, in the absence of evidence to suggest otherwise, linear relationships was hypothesised in this study. Where moderators are proposed, appropriate methods are adopted to assess them. Finally, the research design adopted in this study ensured that each participating organisation answered only one questionnaire. Thus, the assumption of independence appears to have been satisfied.

6.2.1 Analysis Issues

Additional issues related to model testing were also considered as they may have implications on the analysis procedures and also on inferences made from the results. Issues that were given attention were regarding outliers and influential data point, multicollinearity, power of analysis and sample size.

Outliers are extreme data points that may significantly affect the results of structural equation modelling (West, Finch and Curran 1995). It is therefore important to identify these values and to check for plausibility and take necessary actions such as deletion, redefining the population of study, or respecifying the model (West, Finch and Curran 1995). This problem, however, is minimised since all of the variables of interest has a strictly defined range of between 1 to 7 and 1 to 10. The only potential outliers may

arise from descriptive data such as firm size in terms of firms' overall sales and number or employees. However, the decision to eliminate an outlier or influential data point must be based on what Kleinbaum et al. (1998, p. 232) call "scientific judgement". However, they warn against data snooping simply to improve model fit. They state " [s]ome observation must be the most extreme in every sample. It would be silly to delete automatically… Scientific judgement is more important here than statistical tests, once influential observations have been flagged. Of course, deleting the most deviant observations always at least slightly improves – and sometimes substantially improves – the fit of the model, but one must resist the temptation to polish the fit of the model by discarding troublesome data points (Kleinbaum et al. 1998, p. 232-233). For this reason, extreme values were eliminated from the model only if strong reasons to eliminate them were apparent.

For example, considering the number of employees, the descriptive statistics show that two cases of having extremely high number of employees (above 7,600 employees). It is likely that removing these two cases from the analysis would have improved the data fit to the model. In order to assess whether the two cases have any significant impact on the study findings, they were tested on two groups of CFA models[1]. The removal of these cases was found to have no significant effect on the path coefficients, all the fit indices provide the almost values. Furthermore, the change in χ^2 on moving from the CFA model with full data set (n = 225) to the CFA model with extreme values (n = 223) was insignificant at $p = 0.05$ ($\Delta \chi^2 = 1.270$ and 0.104). Subsequently, the two cases were retained for the analysis.

Multicollinearity refers to the situation where there is high correlation between the independent variables in the model (c.f. Kleinbum et al. 1998). The presence of multicollinearity creates instability in the resulting test statistics. When two or more independent variables are highly correlated, it is difficult to separate the effects of each independent variable on the dependent variables (Kleinbaum, Kupper, Muller et al. 1998). There are several strategies to deal with the problem. Cohen and Cohen (1975)

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[1] The two CFA models used were the first order factor for domestic market-oriented ,export market oriented behaviour and differences in market-oriented behaviour across their domestic and export operations, and the CFA model of performance measures.

suggest the deletion of one of the independent variables which displays high multicollinearity. Another strategy is to use a centering approach (Aiken and West 1991; Ping 1995) for variables that are involved when the interaction terms for moderator variables are introduced (see Section 6.5.2). Furthermore, as stated in Table 5.13 the correlations between variables of interest lies between 0.013 and 0.561 thus provide evidence that multicollinearity does not pose a problem in the model (see Grewal, Cote and Baumgartner 2005).

The power of a test is related to the probability of rejecting the null hypothesis when the alternative hypothesis is true (Sharma 1996). It is important that the test power be as high as possible in order to improve confidence when interpreting the findings. Lack of power may eventually lead to false conclusions. Of particular importance here is related to the sample size used in the analysis. This is especially important since SEM requires a large sample size of at least 200 (Jackson 2003; Kelloway 1998). Furthermore, Marsh, Bella and MacDonald (1988) note that a small sample size (less than 200) may lead to inaccurate parameter estimates. On the other hand, too large sample size also poses a problem for SEM analysis because if the model is too large, it may lead to over rejection of acceptable model due to increased power of the model fit tests (c.f. Saris and Satorra 1993). Alternatively, Bentler and Chou (1987) suggest a more flexible approach and suggest that the ratio of sample size to parameters to be between 5:1 and 10:1 for acceptably stable estimates to be computed, while Kline (1998) suggests the range of 10:1 and 20:1 as appropriate ratio. As discussed in Chapter 4, this study has a sample size of 225 while the effective sample size ranged from 219 to 225 depending on the analysis of different model used, thus providing sufficient power for the subsequent analysis and results.

6.2.2 Operationalisation of the Variables

All variables used in this study were found to have adequate fit for model testing as has been demonstrated in Chapter 5. In addition to the minimum sample size requirement for SEM analysis, an additional step was taken to include Bentler and Chou's (1987) recommended sample size to parameter estimate ratio. As discussed in

Chapter Two, there are two models that need to be analysed and the issue of ratio of parameter estimates were dealt with separately.

The next three sections describe the analysis and results of hypotheses testing. In Section 6.3, the results for hypotheses concerning firms' differences in market-oriented levels across their domestic and export operations are presented. Sections 6.4 and 6.5 provide the procedures and results for model testing concerning the antecedents and performance consequences of differences in market-oriented behaviour levels across firms' domestic and export operations.

6.2.3   Overall Analysis Approach

In order to test the hypotheses, a latent variable path model is constructed based on the conceptual framework detailed in Chapter 3. The first model is concerning the antecedents to differences in market-oriented behaviour across firms' domestic and exports operations, and the second model concerns with the consequences of firms' domestic and exports market-oriented behaviour on performance. The conceptual models to be tested are presented in Figure 6.2 and 6.4 respectively. The covariance matrix were used in both models, and the maximum likelihood estimation (MLE) procedure was employed. Furthermore, for the second model, Ping's (1996) procedures for structural equation model with interaction terms using the MLE procedure was used.

6.3 DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS

H1: Exporting firms ma y have different levels of market-oriented behaviour across their domestic and export marketing operations.

Hypothesis 1 suggests that firms' market-oriented behaviour levels could differ across their export and domestic operations. Evidence to support this hypothesis is provided by looking at the distribution of the differences in market-oriented behaviour levels across firms' domestic and export operation variable. If firms have similar levels of market orientation in both their domestic and export markets, then one would expect to see the variable has a score of around 3.5 (the mid-point of the scale), with very little variance about this value. However, the mean value of the differences in market-oriented behaviour levels across firms' domestic and export operation variable is 4.24, and a one-sample t-test shows that the sample has a mean value significantly different from 3.5 (t-value = 13.325).

Furthermore, the range of values obtained for the differences in market-oriented behaviour levels across firms' domestic and export operation variable is high, from 1 to 6, and is normally distributed. These findings combined provide support for hypothesis 1, and can be interpreted as demonstrating that while most firms are more market-oriented in their domestic markets relative to their export markets, approximately 20% of the firms sampled reported that they are more market-oriented in their export markets relative to their domestic markets.

6.4 KEY DRIVERS OF DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS

The model initially consists of seven variables with 23 indicators. However, as discussed in Chapter 5, some of the variables were obtained by aggregating across two scales. The mutual dependence scale consists of two dimensions; domestic dependence and export dependence. The mutual dependence scale was created by aggregating

domestic dependence and export dependence scores of scale items. Furthermore, with a single item scale of interfunctional strategic symmetry, differences in domestic and export market environments and market dominance, the model was left with six variables and 16 indicators thus providing the model with an acceptable parameter estimates ratio of $1:13^2$ to satisfy Bentler and Chou's (1987) recommended sample size to parameter estimate ratio.

Following Bollen (1989), Muthén (1983), Powers and Xie (1999), Xie, Song and Stringfellow (1998) and Xie (1989), the exogenous categorical variable of strategic symmetry was treated as a continuous variable. This follows the argument that when a categorical variable is exogenous, the fit is actually a marginal maximum likelihood and thus can be treated as continuous (Bollen 1989).

For the single indicant scales, the error variance was set at $[(1 - \alpha) \times \sigma^2]$, where α is the construct reliability from the sample and σ^2 is the standard deviation of the construct in the sample (see Anderson and Gerbing 1988; Brown et al. 2002; Kelloway 1998; Ping 1996). The value for the construct reliability of the differences in domestic and export market environments, and mutual dependence[3] scales were taken from the composite reliability scores in Chapter 5. The variance was taken from the single summated scale. As for the market dominance and interfunctional strategic symmetry, the scale was assumed to have a reliability of 0.7 (see Cadogan et al. 2005) while the variance for the observed score was computed from the standard deviation for each variable. The values and the resulting error variance loadings are shown in Table 6.1.

Table 6.1: Single Indicant Operationalisation Statistics

Measure	Reliability	Variance	Error Variance
Interfunctional Strategic Symmetry	0.70	0.230	0.069
Mutual Dependence	0.86	1.149	0.161
Market Dominance	0.70	201.811	60.543
Differences in Domestic and Export Market Environments	0.72	0.318	0.089

[2] The effective sample size for the model was 221, thus the parameter estimate ration was (221/16) or 13:1.

[3] The mean of the construct reliability was computed by taking the average of the two dimensions representing the construct.

6.4.1 Antecedents to Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

The hypothesised antecedent variables to differences in market-oriented behaviour levels across firms' domestic and export operations, and their expected direction of influence are shown in Figure 6.1. The analysis was performed using LISREL 8.52 with maximum likelihood estimation (ML) procedure, and analysed through covariance matrix.

Figure 6.1: Antecedent Variables to Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations (*reproduced for ease of reference*)
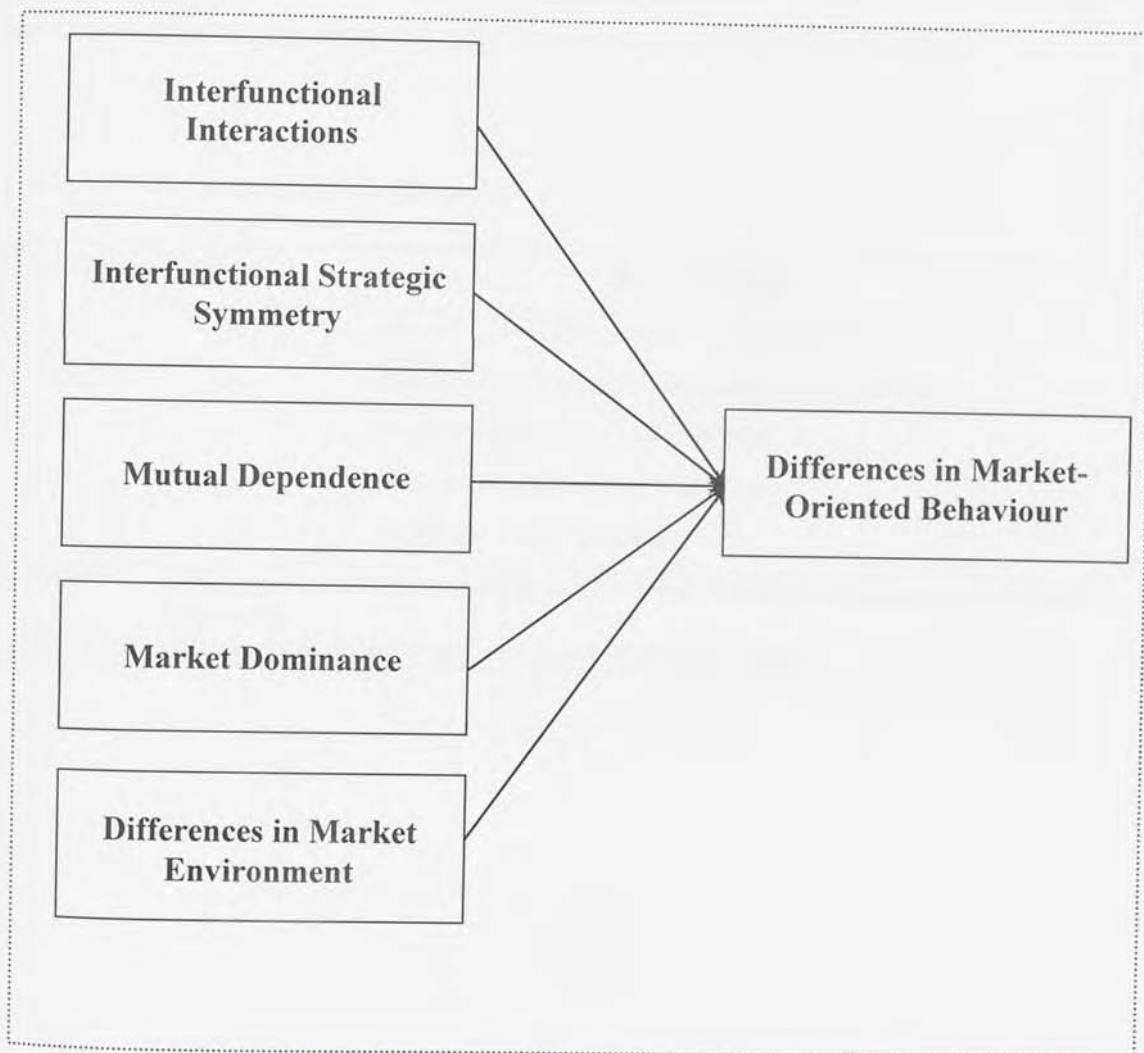
6.4.2 Model Specification

A full structural model of antecedents to differences in market-oriented behaviour levels across firms' domestic and export operations is presented in Figure 6.2. The observed indicator is represented by x, and the error term associated with it is δ. The exogenous (independent) variables are represented by ξ, endogenous (dependent) variables are represented by η. For each endogenous latent variable, the residual term is represented by ζ. The paths between the constructs represent how each construct relates to the other. The relationship between exogenous and endogenous variables is represented by γ.

Additionally, the hypotheses presented in Chapter 3 are restated in Table 6.2 with additional information about the path for each hypothesised relationship.

Table 6.2: Hypotheses to be Tested

Hypothesis	Path	Relationship
H_2	γ_{11}	Interfunctional Interactions → (-) MODiff*
H_3	γ_{12}	Interfunctional Strategic Symmetry → (-) MODiff
H_4	γ_{13}	Mutual Dependence → (-) MODiff
H_5	γ_{14}	Market Dominance → (+) MODiff
H_6	γ_{15}	ENVDiff** → (+) MODiff

* MODiff : Differences in market-oriented behaviour levels across firms' domestic and export operations.
** ENVDiff: Differences in domestic and export market environments.

Figure 6.2: **Hypothesised Structural Equation Model Specifications for Antecedents to Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations**

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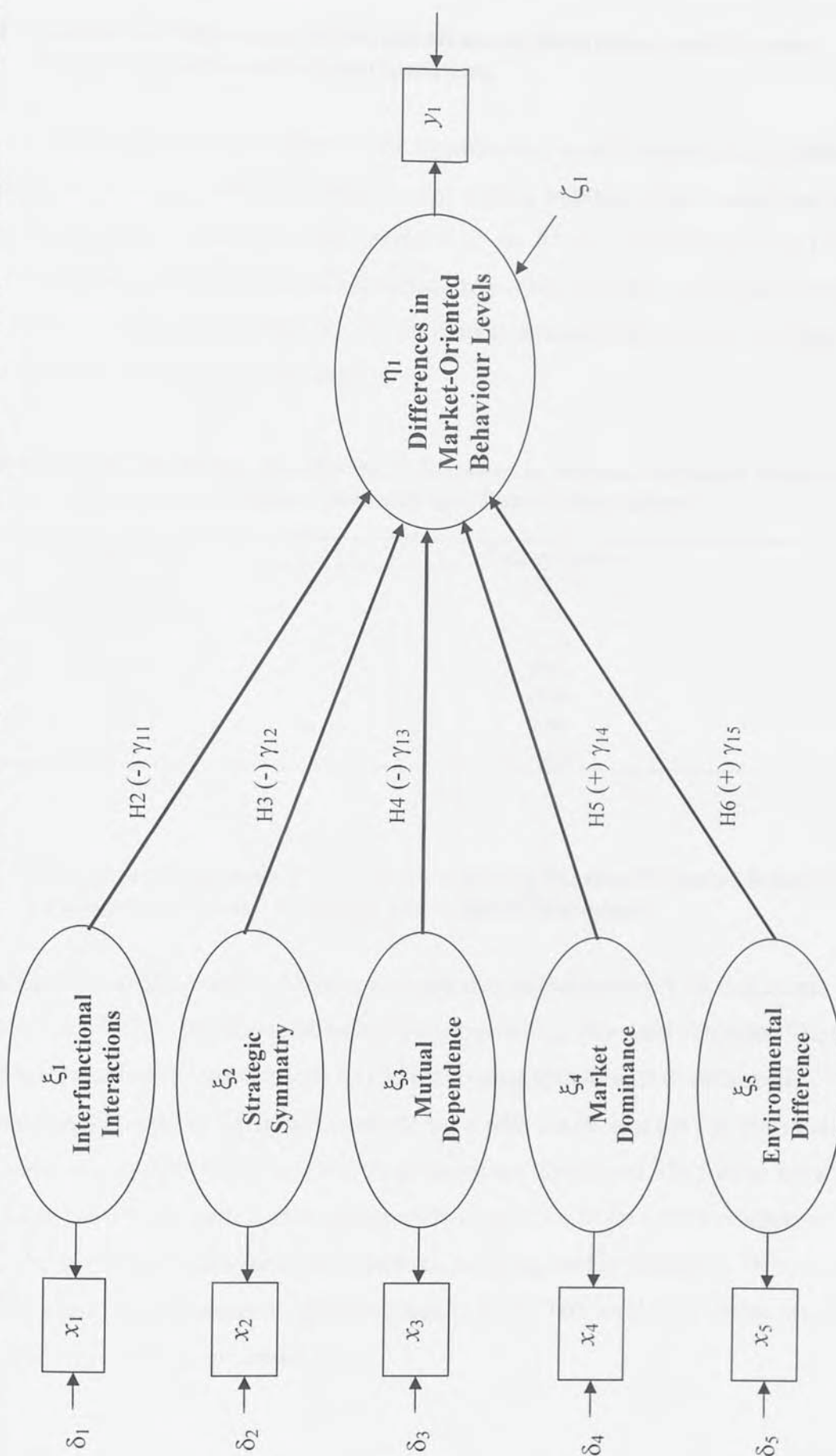
6.4.3 Results for Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

The results from the ML procedure for the hypothesised model returned an excellent model fit as shown in Table 6.3. The χ^2 also returned a non-significant model, and all of the other heuristic indices indicate excellent fit. An R^2 of 0.3675 was achieved in the structural equations thus the model's proposed antecedents are able to explain about 37% of the variance in the differences in the market-oriented behaviour levels across firms domestic and export operations.

Table 6.3: Test Results for Results for Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

Fit Statistic	Model Score
Chi-Square	109.79
Degree of Freedom	93
p-value	0.11
RMSEA	0.03
CFI	0.98
NNFI	0.98
GFI	0.94

6.4.4 Individual Hypothesis Tests of Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

While the fit statistics described earlier provide an acceptable model fit, it does not provide much insight into the relationship between the hypothesised variables. Thus detail analysis of each hypothesised relationship using structural path estimate is discussed in this section. Each path estimate has a path coefficient (or γ in this model) and t-value associated with it. Since all hypotheses are directional, the t-value for a statistically significant path coefficient needs to exceed 1.645 for a 95% confidence level. The summary results for each hypothesis are presented in Table 6.4. Overall, all five hypotheses tested returned significant results at the 0.05 level. Discussion on the individual hypothesis is presented next.

Table 6.4: Individual Hypothesis Test Results for of Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

Hypothesis	Path	Relationship	Standardised Parameter	t-value
H_2	γ_{11}	Interactions → (-) MODiff**	-0.159	-2.169*
H_3	γ_{12}	Strategic Symmetry → (-) MODiff	-0.211	-3.193*
H_4	γ_{13}	Mutual Dependence → (-) MODiff	-0.151	-1.722*
H_5	γ_{14}	Market Dominance → (+) MODiff	0.210	2.738*
H_6	γ_{15}	ENVDiff*** → (+) MODiff	0.335	4.444*

*: Relationship significant at 5% (one tailed test).
**: MODiff = Differences in market-oriented behaviour levels across firms' domestic and export operations
***: ENVDiff = Differences in domestic and export market environments.

6.4.4.1 Hypothesis Relating to Interfunctional Interactions

H2: The g reater the interfunctional interactions between firms' domestic and export functions, the smaller the differences in market-oriented behaviour levels across firms' domestic and export operations.

The hypothesis on interfunctional interactions was supported at 0.05 level. This hypothesis had a path coefficient of –0.159 and a t-value of –2.169. The result indicates that increases in the level of interactions between domestic and export functions bring about lower levels of differences in market-oriented behaviour levels across firms' domestic and export operations. This suggests that firms in the sample tend to adopt similar level of market-oriented behaviour if the levels of interactions between domestic and export marketing functions increase. This suggests that the amount of contact among managers from different functions or departments is important to develop extensive market orientation programmes that cover the domestic and export operations.

6.4.4.2 Hypothesis Relating to Interfunctional Strategic Symmetry

H3: The degree of in interfunctional strategic symmetry between firms' domestic and export functions is negatively related to the differences in market-oriented behaviour levels across firms' domestic and export operations.

Hypothesis 3 which predicts that interfunctional strategic symmetry would be associated negatively with differences in market-oriented behaviour levels across firms' domestic and export operations did find support. The coefficient for this path was –0.207, with a t-value of –3.129. Thus, it seems that firms' strategic symmetry in their domestic and export markets lead managers to generate, disseminate and respond to market intelligence in the same way, leading to lower level of differences in market-oriented behaviour levels across firms' operations. This finding suggests that the degree and emphasis in firms' market orientation differs according to the firms' strategy types. By focussing on the firms' strategic symmetry in the export and domestic markets, the finding from this study also indirectly supports the empirical evidence by Lukas (1999) that firms' market-oriented behaviour tend to follow the same route when the strategy archetype is similar.

6.4.4.3 Hypothesis Relating to Mutual Dependence

H4: The g reater the mutual dependence between firms' domestic and export marketing functions, the smaller the differences in market-oriented behaviour levels across firms' domestic and export operations.

Hypothesis 4 was supported with a coefficient of –0.151 and a t-value of –1.722. The significant finding provides evidence that the interdependence between export and domestic departments in terms of resources (e.g. personnel), support (technical assistance) and output (product design) enhances the sharing of information and thus can be applied to the implementation stage of generation, dissemination and responsiveness to the market intelligence requirement. The finding suggests that interdependence between marketing in the domestic operations and export functions reduces the degree of coerciveness between one unit and another (c.f. Fisher, Maltz and Jaworski 1997), thus enabling various functions to work more closely to achieve organisational objectives. This is also in line with the work of Fisher, Maltz and

Jaworski (1997) that found interfunctional interdependence between engineering and marketing department has a significant association with the bidirectionality of the communication as it helps to increase the clarity of communication exchanges.

6.4.4.4 Hypothesis Relating to Market Dominance

H5: The greater the degree to which either domestic market sales or export market sales dominate firms' sales activities, the greater the difference in market-oriented behaviour levels across firms' domestic and export marketing operations.

This hypothesis related to the positive association between market dominance and differences in market-oriented behaviour levels across firms' domestic and export operations and was also strongly supported. It returned a coefficient of 0.210 and t-value of 2.738. This result shows that firms' market-oriented behaviour tend to differ if the degree to which a firm's domestic or export market sales are more dominant over the other. Thus, if a market is perceived to be more important in terms of sales volume, managers are more willing to commit more on market-oriented activities in that particular market. On the other hand, the results indicate that managers were less keen to generate, disseminate and respond to market intelligence to lesser important markets. This is perhaps in line with the suggestion that market orientation activities are expensive, and firms' commitment and investment in market-oriented behaviour need to be justified. Thus when a firm is highly involved in one market over the other, there will be large differences in their market-oriented behaviour levels across their domestic and export operations. Thus hypothesis 5 is supported.

6.4.4.5 Hypothesis Relating to Differences in Domestic and Export Market Environments

H6: The greater the difference in the environmental turbulence across firms' domestic and export markets, the greater the difference in the level of market-oriented behaviour across firms' domestic and export marketing operations.

The final hypothesis for the antecedents to differences in market-oriented behaviour levels across firms' domestic and export operations was also supported. This path hypothesised that differences in domestic and export market environments would have positive direct effect on firms' differences in market-oriented behaviour levels across firms' domestic and export operations. This hypothesis had a path coefficient of 0.335 and a t-value of 4.444. The finding provides strong evidence about the role of environment in determining firms' market-oriented behaviour. As the evidence suggested, differences in the level of environmental turbulence leads to firms' having different market-oriented behaviour levels across their domestic and export operations. Furthermore, the results provide tentative support that managers align the environmental pressure/characteristics with organisational market orientation (c.f. Khandwalla 1976; Miles and Snow 1978) to achieve superior organisational performance.

6.4.5 Section Summary

Overall, the research findings from the antecedents to differences in market-oriented behaviour levels across firms' domestic and export operations model show that differences in domestic and export market environments returns the highest standardised path coefficient while the mutual dependence between domestic and export functions is the least predictor of firms' differences in market-oriented behaviour levels across domestic and export operations. Thus firms' environmental turbulence in the domestic and export markets appear to play a critical role in determining the degree of differences in market-oriented behaviour levels across firms' domestic and export operations. The next section discusses the findings of the consequences of such differences on firms' overall performance.

6.5 CONSEQUENCES OF DOMESTIC AND EXPORT MARKET-ORIENTED BEHAVIOUR ON PERFORMANCE

The general hypotheses in this model concern the relationship between domestic market-oriented behaviour and export market-oriented behaviour on overall organisational performance. Specifically, it has been hypothesised that the higher the degree of a firm's domestic market-oriented, the better the firm will perform in terms of its overall sales performance. Similarly, in the firm's export market, it is proposed that a higher export-market-oriented behaviour will lead to better overall sales performance. Additionally, this section also test the domestic and export market turbulence in moderating the effect of domestic market orientation and overall sales performance, and export market orientation with overall sales performance respectively.

The analysis technique for the second model follows Ping's (1996; 1998) procedures for structural model with interaction terms using the maximum likelihood estimation (ML). Similar to the first model, covariance matrix was used in the analysis, however, the analysis technique used in this model was different from the first model in three major ways. First, item parcelling technique was used for *all* variables in the model. Second, to reduce problems associated with multicollinearity arising from the interaction terms used in the model, all single indicants of exogenous and endogenous variables were mean-centred (Kenny and Judd 1984; Ping 1994). Ping (2003) noted that failing to mean-center the exogenous and endogenous variables can lead to structural coefficient bias. Third, the interaction terms were created where the mean centred score was used throughout this multiplicative procedure. The loadings and error variances for each of the interaction terms were estimated using Ping's (1995) formulae. Details of the procedures are described in the preceding sections.

For the main model, there were 13 variables and 35 indicators. As the model exceed the sample size to parameter estimate ratio suggested by Bentler and Chou (1987), item parcelling technique (see Bagozzi and Edwards 1998; Hagtvet and Nasser 2004; Kim and Hagtvet 2003; Little et al. 2002) was used to create summated single construct for all scales used in this model. With a single item scale, the main model has

six indicators thus giving a ration of 36.83:1, far exceeding the minimum recommendation of Bentler and Chou' (1987) ration. The variance for the single indicators of the main effect structural models was set at $[(1 - \alpha) \times \sigma^2]$ (Ping 2004). The construct reliability of the scale was used for all scales except for the overall sales performance and overall profit performance, where the scale was assumed to have a reliability of 0.7 (see Cadogan et al. 2005). The values and the resulting error variance loadings for the single indicant latent variables and for the interaction terms (see preceding discussion) are shown in Table 6.5.

Table 6.5: Single Indicant Operationalisation Statistics for Model Two

Measure	Reliability	Variance	Error Variance
Domestic Market-Oriented Behaviour	0.85	1.007	0.151
Export Market-Oriented Behaviour	0.82	1.039	0.187
Domestic Market Turbulence	0.74	2.456	0.639
Export Market Turbulence	0.86	1.518	0.213
Overall Sales Performance	0.70	0.566	0.170
Overall Profit Performance	0.70	0.596	0.179

Figure 6.3 presents the conceptual framework of the firms' market-oriented behaviour and their performance consequences. This figure is taken from the conceptual framework in Chapter 3. The resulting path diagram is presented in Figure 6.4 and model specification follows the one described earlier (Section 6.3.2). Additionally, the relationship between endogenous and exogenous variables is represented by β and is presented in Figure 6.6. Ping's (1995; 2004) two-step estimating interaction effects techniques were used for model testing. Model testing follows the three procedures outlined earlier.

Figure 6.3: Firms' Domestic Market-Oriented Behaviour, Export Market-Oriented Behaviour, Environmental Turbulence Moderators and Performance Outcomes (*Reproduced for ease of reference*).
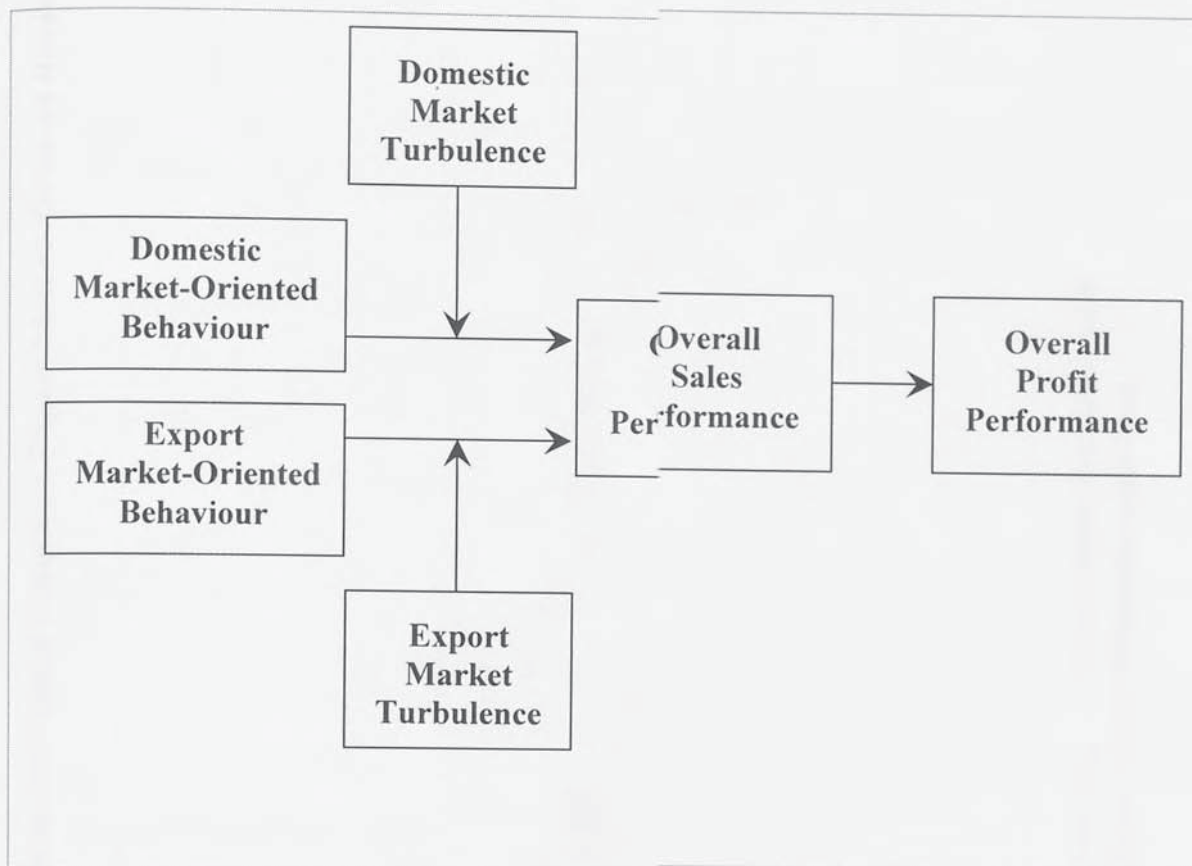
Figure 6.4: **Hypothesised Structural Model of Firms' Domestic Market-Oriented Behaviour, Export Market- Oriented Behaviour, and Environmental Turbulence**

Note:

ξ_1 = Domestic Market-Oriented Behaviour; ξ_2 = Domestic Market Turbulence; $\xi_1 \xi_2$ = Domestic Market Interaction Term.

ξ_3 = Export Market-Oriented Behaviour; ξ_4 = Export Market Turbulence; $\xi_3 \xi_4$ = Export Market Interaction Term.

η_1 = Overall Sales Performance; η_1 = Overall Profit Performance.
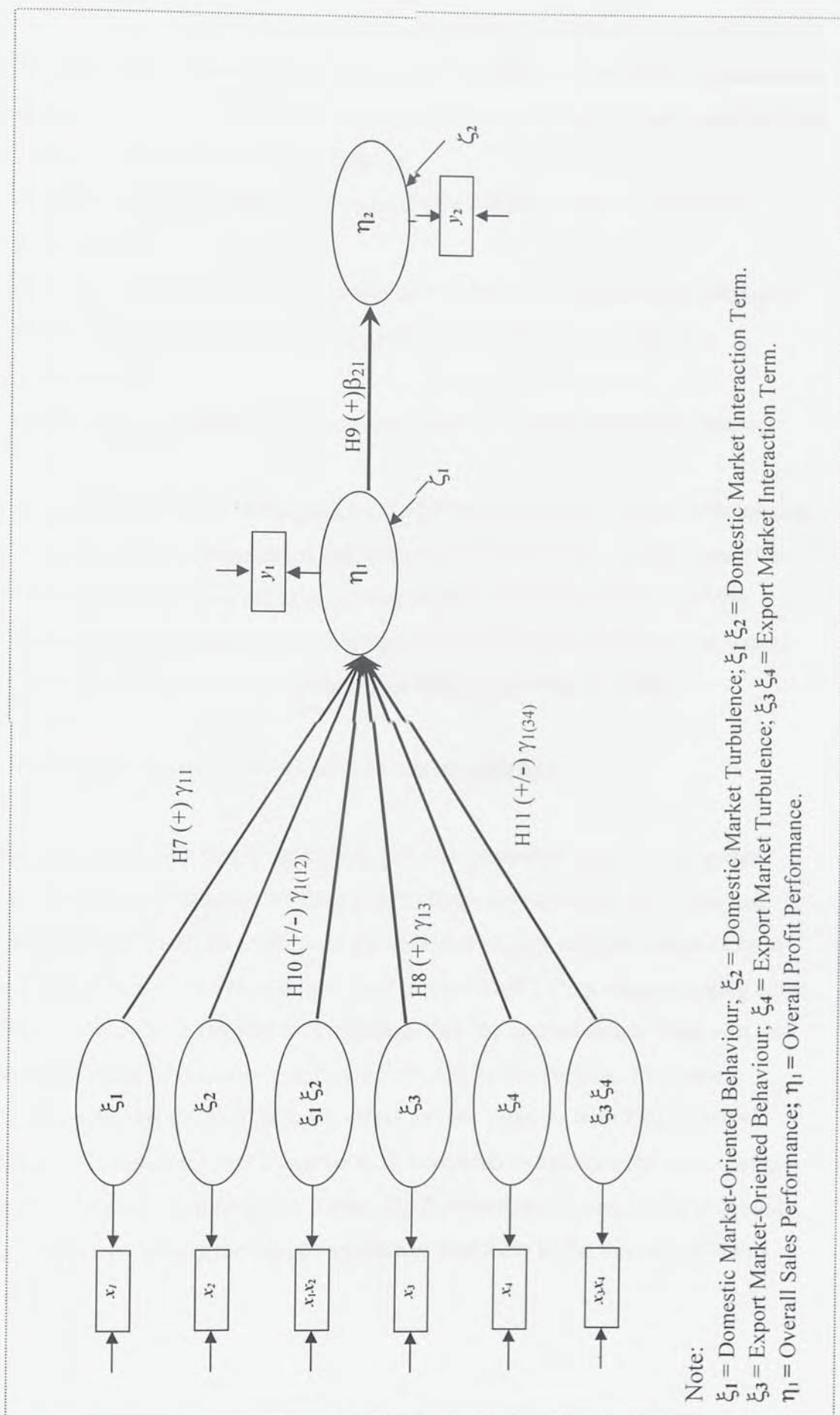
6.5.1 Analysis Techniques

Ping's (1995, 2004) two-step procedures for the evaluation of structural models with interaction terms were followed to test the model. The first step involves the estimation of the main effect models. Specifically, there are four equations that were modelled for the main effect. They are specified as follows:

1. Domestic market-oriented behaviour as direct antecedent to overall sales performance.

2. Domestic market turbulence as direct antecedent to overall sales performance.

3. Export market-oriented behaviour as direct antecedent to overall sales performance.

4. Export market turbulence as direct antecedent to overall sales performance.

Furthermore, as overall sales performance is hypothesised to have a direct relationship with the overall profit performance, a link between the two latent variables was also added to the model. The main effect structural model was estimated first and the results show an excellent model fit, where the GFI, NNFI and CFI returned at values around 0.990. The full result of the main effect test is presented in Table 6.7.

6.5.2 Structural Equation Model with Interaction Effect

The error variance for the single indicant scales was computed using the procedure outline in Section 6.4. Furthermore, Ping (1995) proposes replacing the Kenny and Judd (1984) product indicators with a single indicator to deal with the complexity of analysing moderated structural equation model. Specifically, Ping suggests using sums of indicators as is done in regression. Following this, the second step of Ping was performed where the interaction terms were included in the analysis. The error variance and factor loadings of the main effect model, together with Ping's (1995) equations (see Equation 6.1 and Equation 6.2) were used to estimate the error variance and factor loadings of the interaction terms. Furthermore, according to this procedure, the intercorrelations among the latent variables of that form to the interaction terms were freed.

A simplified export market-oriented behaviour – export performance model developed by Cadogan, Diamantopoulos and Siguaw (2002) was used to illustrate the interaction effect and is shown in Figure 6.5. In this model, export market-oriented behaviour (X) association with export performance (Y) is moderated by export environmental turbulence (Z). The mean-centred single indicaints of X and Y were then multiplied to create an interaction term of XZ. Using Ping's (2003) formulae, the indicators for indicator x:z the loading ($\lambda_{x:z}$) and the error variance is given by:

Equation 6.1: The loading for x:z

$$\lambda_{x:z} = \Lambda_X \Lambda_Z$$

Equation 6.2: The error variance for x:z

$$\theta_{\varepsilon_{x:z}} = \Lambda_X^2 \text{Var}(X)\theta_Z + \Lambda_Z^2 \text{Var}(Z)\theta_X + \theta_X\theta_Z$$

where $\Lambda_X = \lambda_{x1} + \lambda_{x2}$,

$\quad\quad \theta_X = \text{Var}(\varepsilon_{x1}) + \text{Var}(\varepsilon_{x2})$,

$\quad\quad \Lambda_Z = \lambda_{z1} + \lambda_{z2}$,

$\quad\quad \theta_Z = \text{Var}(\varepsilon_{z1}) + \text{Var}(\varepsilon_{z2})$.

Figure 6.5: Interaction Effect Model for Export-Market-Oriented Behaviour and Export Market Environment
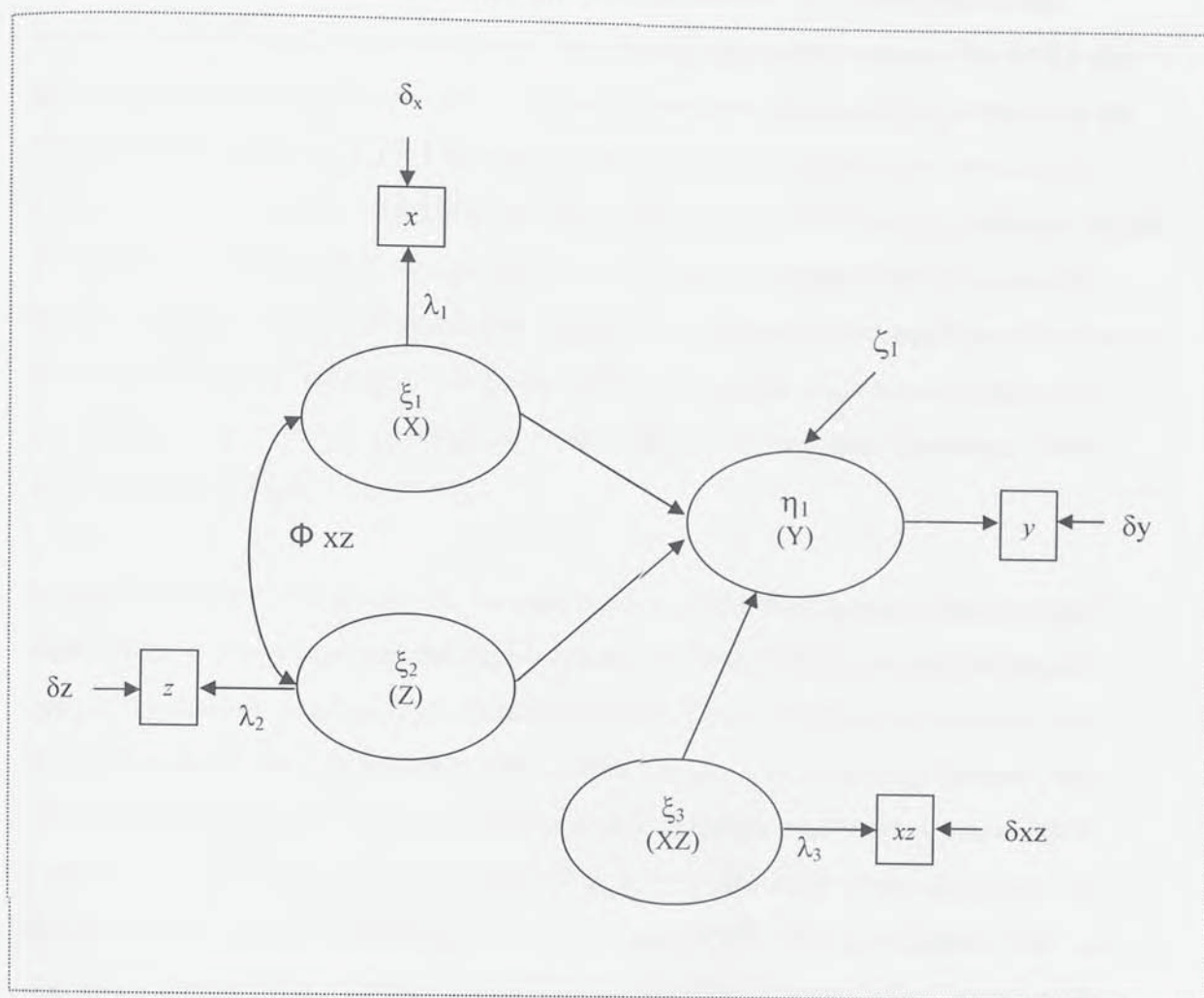
Using the same procedures the two interaction terms in the model were performed. The loadings and the error variance for the interaction terms are presented in Table 6.6.

Table 6.6: The Interaction Terms Operationalisation, Loadings and Error Variance

Interaction Terms	Abbreviation	Loadings	Error Variance
Domestic Market-Oriented Behaviour x Domestic Market Turbulence	Domestic Market Interaction Term	0.689	0.462
Export Market-Oriented Behaviour x Export Market Turbulence	Export Market Interaction Term	0.712	0.320

The interaction effect model was then estimated, in which all the main effect equations along with the interaction terms were added to the model. The interaction latent variables were treated as antecedents to the overall sales performance. The fit for the interaction-effects model were then estimated, however, the model fit particularly the NNFI score was poor at 0.77. Full result is presented in Table 6.7 (see Interaction-Effects I). This is hardly surprising as Ping (2003) notes that adding an indicator for an interaction (i.e. the product of other indicators) does not improve model to data fit because products of indicators are non-normal. As the model has two interaction terms (product indicators) linking to two paths making the model even more complex thus the deteriorating in model fit could be expected (see Gerbing and Heatherton 1994; Kenny and Judd 1984; Ping 2003).

In order to improve the model fit, an examination of the modification indexes was undertaken. It was found that the export market-oriented behaviour and the export market interaction term has high correlated errors. Given that the two variables are attached to the shared components, their errors are likely to correlate (Cortina 2003). Thus, the measurement error between these two variables was freed (Cortina 2003; Cortina et al. 2001; Joreskog and Yang 1996; Kenny and Judd 1984). As a result of this procedure, the model fit improved further, and NNFI was approaching 0.86, and the result is reported in Table 6.7. (see Final Interaction-Effects Fully Unrestricted). The final interaction effect returned a better model fit, with all fit indexes showing substantial improvement.

Table 6.7: Consequences of Firms' Differences in Market-oriented Behaviour Test Results

Model	χ2 (d.f.)	RMSEA	GFI	NNFI	CFI
Main Effects	6.115 (64)	0.049	0.995	0.966	0.998
Interaction-Effects I	31.692 (10)	0.099	0.965	0.765	0.901
Final Interaction-Effects (Fully Unrestricted)	20.422 (9)	0.077	0.977	0.857	0.949
Fully Restricted	27.281 (11)	0.082	0.970	0.845	0.928

Furthermore, the decrease in χ^2 on moving from the Interaction-Effects I model to the Final Interaction-Effect (fully unrestricted) was significant at $p = 0.05$ ($\Delta \chi^2 = 11.270$; Δ d.f. = 1). Finally, a fully restricted model was run, in which all interaction paths were constrained to zero. In the fully restricted model, the increase in χ^2 resulting from constraining interaction path coefficients was significant $p = 0.05$ ($\Delta \chi^2 = 6.859$; Δ d.f. = 2). In addition, all fit indices, particularly NNFI, showed improvement on the fully unrestricted model. Thus, the results from the unrestricted model were used to test the hypotheses.

The R^2 values for the structural equations are also encouraging (see Table 6.8). The overall sales performance returned a higher R^2 value indicating that the proposed model is capable of predicting over 35% of variances in firms' domestic market-oriented and export market-oriented behaviour. The R^2 for overall profit performance is slightly low but is sufficient.

Table 6.8: R^2 values for performance

Endogenous Variable	R^2
Overall Sales Performance	0.3557
Overall Profit Performance	0.1653

6.5.3 Results for Consequences of Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations on Performance

The hypotheses presented in Chapter 3 are restated in Table 6.9 with additional information about the path for each of the hypothesised relationship. The full structural model with interaction terms of firms' market-oriented behaviour and their performance consequences is presented in Figure 6.4. Table 6.10 provides the standardised and unstandardised parameter estimates for this model.

Table 6.9: Hypotheses to be Tested

Hypothesis	Path	Relationship
H7	γ_{11}	Domestic Market-Oriented Behaviour → (+) Overall Sales Performance
H8	γ_{13}	Export Market-Oriented Behaviour → (+) Overall Sales Performance
H9	β_{21}	Overall Sales Performance → (+) Overall Profit Performance
H10	$\gamma_{1(12)}$	Domestic Market Interaction → (+/-)Overall Sales Performance
H11	$\gamma_{1(34)}$	Export Market Interaction → (+/-) Overall Sales Performance

6.5.4 Individual Hypothesis Tests for Consequences of Firms' Differences in Market-Oriented Behaviour Levels Across Domestic and Export Operations

The individual results from this procedure are presented in the individual hypothesis discussion in the following section. Table 6.10 provides results obtained from the model testing. The overall results show that market-oriented behaviour is important and has significant influence on organisational performance. Thus the findings provide strong support for the notion that a firm's domestic market-oriented and export market-oriented behaviour are important determinants of its organisational success. The presence of moderator effects were also detected and detail of the analysis is presented in the next section.

Table 6.10: Estimated Effects within the Causal Model

Hypotheses	Path	Relationship	Unstandardised Parameter	Standardised Parameter	t-values
H7	γ_{11}	DMOB → (+) OSP	0.101	0.285	2.303*
	γ_{12}^{+}	DME → OSP	0.028	0.100	1.017
H8	γ_{13}	EMOB → (+) OSP	0.091	0.267	2.061*
	γ_{14}^{+}	EME → OSP	-0.061	-0.218	-2.193*
H9	β_{21}	OSP → (+) OPP	0.639	0.495	6.336*
H10	$\gamma_{1(12)}$	DMI → (+/-) OSP	0.037	0.135	1.548**
H11	$\gamma_{1(34)}$	EMI → (+/-) OSP	-0.046	-0.135	-2.456*

Note:
* : Relationship significant at 5% (one-tailed test)
**: Relationship significant at 10% (one-tailed test)
⁺ : Unhypothesised relationship
DMOB = Domestic market-oriented behaviour
EMOB = Export market-oriented behaviour
OSP = Overall sales performance
OPP = Overall profit performance
DME = Domestic market environment
EME = Export market environment
DMI = Domestic market interaction term
EMI = Export market interaction term

6.5.4.1 The effect of Domestic Market-Oriented Behaviour on Overall Sales Performance

H7: There is a positive relationship between firms' domestic market-oriented behaviour levels, and firms' overall sales performance.

Support was evident within the data analysis conducted for hypothesis 7. Hence, firms' domestic market-oriented behaviour was found to have a direct and positive effect on overall sales performance. A path coefficient of 0.29 was presented and supported by a significant t-value of 2.30. The finding suggests that a firm's domestic market-oriented behaviour is indeed a significant predictor of its overall sales performance.

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6.5.4.2 The effect of Export Market-Oriented Behaviour on Overall Sales Performance

H8:   There is a positive relationship between firms' export market-oriented behaviour levels, and firms' overall sales performance.

Overall hypothesis 8 receives strong support that export market-oriented behaviour is a significant predictor of firms' overall sales performance. The export-market-oriented behaviour returned a high coefficient value (0.19) and has a t-value of 2.061. Thus the finding provides strong evidence for the notion that export market-oriented behaviour is an important determinant of organisational success.

6.5.4.3 The Effect of Overall Sales Performance on Overall Profit Performance

H9:   Overall sales performance is a positively related to overall financial performance.

Support was identified for hypothesis 9, and hence the overall sales performance was seen to impact positively and significantly on overall profit performance. For this relationship a path coefficient of 0.50 was supported by a significant t-value of 6.34. The results indicate that sales success in firms' export and domestic market would contribute positively to firms' overall profit performance.

The results also indirectly suggest that firms' export and domestic performance are predictors of their overall performance. Furthermore, result from this hypothesis reinforces the initial finding that firms' domestic market-oriented and export market-oriented behaviour indirectly predict the firms' overall profit performance through firms' sales performance.

6.5.4.4 The Moderating Effect of Domestic Market Turbulence on Domestic Market-Oriented Behaviour – Domestic Performance Relationships

H10: Domestic environmental turbulence moderates the positive relationship between domestic market-oriented behaviour and overall sales performance: under low levels of domestic environmental turbulence, the relationship is weak; however, as domestic environmental turbulence increases, so too does the strength of the relationship between export market-oriented behaviour and overall sales performance.

In the firm's domestic operations, the main effect of the domestic market turbulence on overall sales performance was positive but non significant (t-values = 1.017). However, the domestic market interaction term returned a significant coefficient of 0.04 (t-value = 1.55) which is significant at $p = 0.10$[4].

Next, partial derivative on a regression equation of overall sales performance was performed in order to get additional insight (Cadogan, Cui and Li 2003; Greenley 1995a; Jaccard, Turrisi and Wan 1990; Schoonhoven 1981). The multiplicative interaction term of the regression equation for overall sales performance is given by Equation 6.3. Taking the partial derivative of the regression Equation 6.3, it can be seen that the slope of the overall sales performance on domestic market turbulence changes for every one unit change in this variable.

Equation 6.3: Regression Equation for Overall Sales Performance

$$Y = \alpha + \beta_0 \, DMO + \beta_1 \, ENV + \beta_2 \, (DMOxENV) + \varepsilon$$

Where:

Y	= Overall Sales Performance
DMO	= Domestic Market-Oriented Behaviour
ENV	= Domestic Market Turbulence
DMOxENV	= Domestic Market Interaction Term
ε	= Random Error Term

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[4] The 0.1 level (t-value of 1.28) was considered to be acceptable considering the research is largely exploratory.

The partial derivative of Equation 6.3, is presented in Equation 6.4. The slope of the overall sales performance on domestic market-oriented behaviour for any value of domestic market turbulence thus can be computed.

Equation 6.4: Partial Derivative of Overall Sales Performance on Domestic-Market-Oriented Behaviour

$$\frac{\partial[\text{Overall Sales Performance}]}{\partial[\text{DMO}]} = \beta_0 + \beta_1 (\text{ENV}) + \beta_2 (\text{ENV})$$

Where:

β_0 = unstandardised regression coefficient for DMO = 0.101

β_1 = unstandardised regression coefficient for ENV = 0.028

β_2 = unstandardised regression coefficient for DMOxENV = 0.037

The point of inflextion, the point where domestic market-oriented behaviour has zero effect on the overall sales performance, was computed by setting the Equation 6.4 equals to zero. Looking in detail at the domestic market turbulence, it can be seen that for every one unit change in this variable, the slope of the overall sales performance changes at the inflexion point. In this case the point of inflexion occurred at a mean-centred domestic market turbulence value of -1.55. The actual domestic market turbulence point of inflexion, therefore, was equal to 2.21 (i.e. -1.55 plus the mean of domestic market turbulence). From Equation 6.4 it was also possible to show that at domestic market turbulence below 2.21, the slope of the overall sales performance on domestic market-oriented behaviour was negative and turned to positive above the inflexion point. As the domestic turbulence was measured on a 7-point Likert scale, with 1 indicating very low turbulence in the domestic market and a 7 indicating high turbulence in the domestic market environment, the findings suggest that when the domestic environmental turbulence is very low, higher domestic market-oriented behaviour leads to lower overall sales performance. In other words, the relationship between domestic market-oriented behaviour and overall sales performance has only had a significant and positive contribution to the overall sales performance under the condition of moderate to high domestic market turbulence. The relationship becomes

stronger and positive as the domestic market turbulence becomes more intensive. The relationship is presented in Figure 6.6 and the overall findings support hypothesis10.

Figure 6.6: Relationships between Domestic-Market-Oriented (DMO) Behaviour, Domestic Market Turbulence and Overall Sales Performance
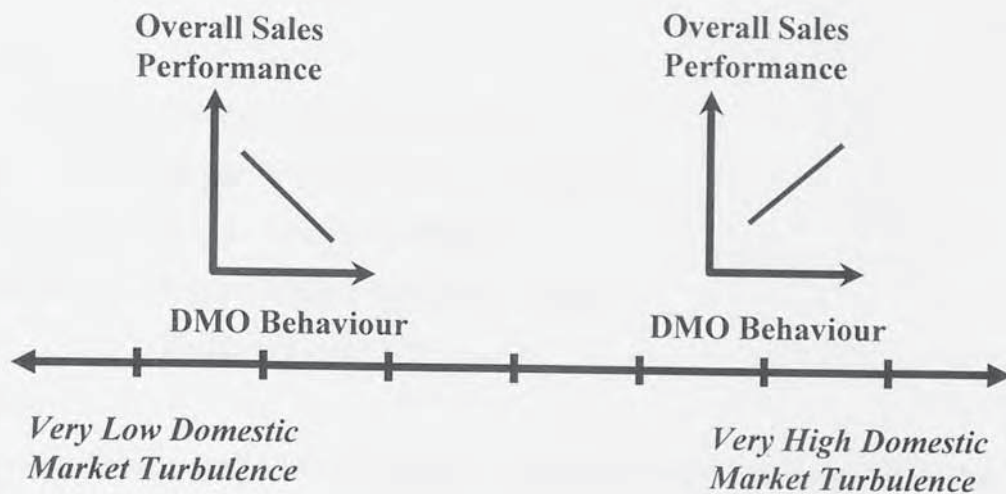
6.5.4.5 The moderating effect of Export Market Turbulence on Export Market-Oriented Behaviour– Export Performance Relationships

H11: Export environmental turbulence moderates the positive relationship between export market-oriented behaviour and overall sales performance: under low levels of export environmental turbulence, the relationship is weak; however, as export environmental turbulence increases, so too does the strength of the relationship between export market-oriented behaviour and overall sales export performance.

The direct effect of the export market turbulence on overall sales performance is negative and significant at $p = 0.05$. This suggests that increases in export market turbulence leads to lower firms' sales performance. The export market interaction term also returned significant result ($\gamma_{1(34)} = -0.14$, $p < 0.05$) and hence partial derivative analysis of the regression for the overall domestic sales performance was performed (see Equation 6.5) in order to gain additional insight. The slope of the overall sales

performance on export market-oriented behaviour for any value of export market turbulence is represented by Equation 6.5.

Equation 6.5: Regression Equation for Overall Sales Performance

$$Y = \alpha + \beta_0 \, EMO + \beta_1 \, ENV + \beta_2 \, (EMOxENV) + \varepsilon$$

Where:

Y	= Overall Sales Performance
EMO	= Export Market-Oriented Behaviour
ENV	= Export Market Turbulence
EMOxENV	= Export Market Interaction Term
ε	= Random Error Term

The slope of the overall sales performance on export market-oriented behaviour for any value of export market turbulence is shown in Equation 6.6.

Equation 6.6: Partial Derivative of Overall Sales Performance on Export Market-Oriented Behaviour

$$\frac{\partial [\text{Overall Sales Performance}]}{\partial [\text{EMO}]} = \beta_0 + \beta_1 ENV + \beta_2 (ENV)$$

Where:

β_0 = unstandardised regression coefficient for EMO = 0.091

β_1 = unstandardised regression coefficient for ENV = - 0.060

β_2 = unstandardised regression coefficient for EMOxENV = - 0.046

The point of inflexion for export market turbulence, where export market-oriented behaviour has zero effect on the overall sales performance, is at 0.86 for the mean-centred value of domestic competitive environment or 4.51 for the actual value of the export market turbulence. The point of inflexion was computed by setting the Equation 6.6 equal to zero. In this case the point of inflexion is at 0.86 for the mean centred

value of export market turbulence or 4.16 for the actual value of the export market turbulence.

From equation 6.4, it is also possible to show that at export market turbulence values below 4.16, the slope of the overall sales performance was positive, while above 4.16, the slope becomes negative. In other words, export market-oriented behaviour has a positive relationship with overall sales performance at values of export market turbulence below than 4.16. This relationship is reversed at values above 4.16. The export market turbulence was measured on a 7-point Likert scale, with 1 indicating very low turbulence in the export market environment and a 7 indicating high turbulence in the export market environment. Therefore, the point of inflexion occurred at a slightly above the midpoint score. When the export market turbulence values were below than the inflexion point, the slope of the overall sales performance on export market-oriented behaviour was positive. In this regard, export market-oriented behaviour had a positive relationship with the overall sales performance for low values of export market turbulence (values lower than 4.16). Since this value is near the middle value of 4, it can be seen that the positive relationship only holds for low values of export market turbulence. A negative relationship holds for values above 4.16, and this relationship decreases in strength as the export market turbulence score increases to a maximum.

This relationship is presented in Figure 6.7. The findings show that for medium and high level of export market turbulence, export market-oriented behaviour is negatively linked to overall sales performance. On the contrary, export market-oriented behaviour is positively related to domestic sales performance in conditions of low export market turbulence. Thus, despite the presence of export environmental moderator in the relationship, the overall results show that the effect of export market turbulence moderator in the export market-turbulence and overall sales performance relationship is in the opposite direction from the hypothesised relationship. Consequently this finding provides a partial support for hypothesis 11.

Figure 6.7: Relationships between Export-Market-Oriented (EMO) Behaviour, Export Market Turbulence and Overall Sales Performance
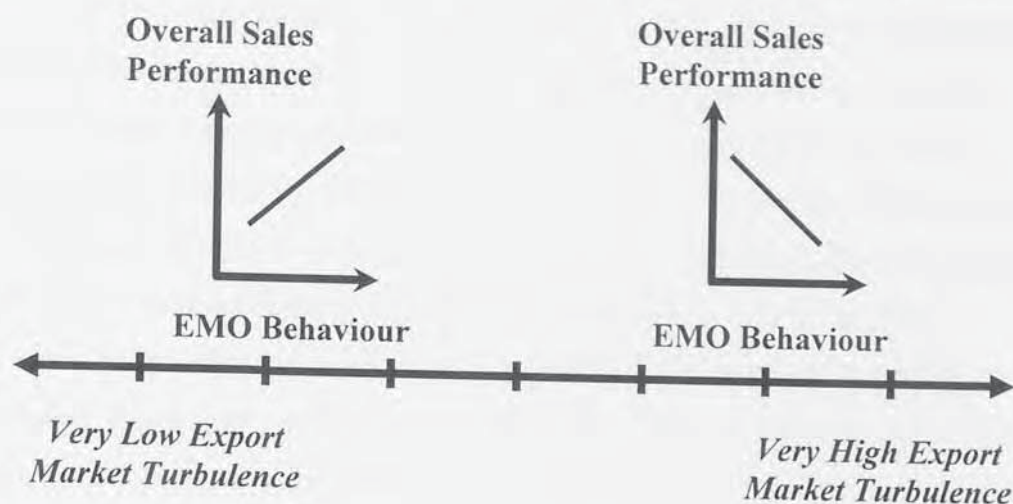
6.6   CHAPTER SUMMARY

The purpose of this chapter was threefold; to find out whether firms' have different market-oriented behaviour levels across their domestic and export operations; to test the hypothesised antecedents to differences in market-oriented behaviour levels across firms' domestic and export operations, and to analyse the consequences of such differences on various organisational performance. First, the result shows firms do have different market-oriented behaviour levels across their domestic and export markets. Further tests show that that there are several important predictors of such differences in market-oriented behaviour levels. The most important contributor is the differences in domestic and export market environments. Market dominance also has a positive and significant impact on such differences. However, interfunctional strategic symmetry, interfunctional integration, and mutual dependence have significant impact on a firm's differences in market- oriented behaviour levels across their domestic and export operations, but their relationships are negative.

The consequences of differences in market-oriented behaviour levels across firms' domestic and export operations on performance were also investigated. The results show that domestic market-oriented and export market-oriented behaviour provided strong support for this relationship. Furthermore, the results of the moderating role of environment were also supported. The presence of the environment moderators were more evident in the export operations. Specifically, it was found that export market

turbulence moderates the export market-oriented behaviour and overall sales performance, while the domestic market turbulence moderates the domestic market-oriented behaviour – overall sales performance but the relationship is weak and only significant at 10% level. However, the impacts of these two moderators on overall sales performance are in the opposite direction. For low level of domestic market turbulence, domestic market-oriented behaviour is negatively associated with overall sales performance, whilst for medium and high levels of domestic market turbulence, domestic market-oriented behaviour is positively associated with overall sales performance. On the other hand, for firms' export operations, high export market-oriented behaviour is only beneficial when the export market turbulence is low. This former finding appears to indicate that, from an efficiency-based perspective, and in line with Jaworski and Kohli's (1993) suggestion, the returns accruing from having high levels of domestic market-oriented behaviour under low levels of market turbulence are not as great as the returns accruing from having high levels of domestic market-oriented behaviour under high levels of turbulence. Furthermore, the results reinforce that firms have different level of environmental turbulence across domestic and export operations and firms need to operate different levels of market orientation across their domestic and export operations as the impact of market-oriented behaviour may differ across these two markets.

Furthermore, the overall sales performance has always had positive influence on firms' overall profit performance which implies that both domestic market-oriented behaviour and export market-oriented behaviour have a strong positive relationship with overall profit performance. The overall findings show that the effect of domestic market-oriented and export market-oriented behaviour depends on the level of environmental turbulence firms experienced in the domestic and export markets. The findings add to the growing body of evidence which suggest that high market-oriented behaviour may not always beneficial for firms.

The next chapter synthesises the major findings and the contribution of this study. Following this, the managerial implications of the study findings are discussed. Finally, the limitations of the study are highlighted, and several directions for future research are identified.

CHAPTER 7

DISCUSSION AND CONCLUSION

7.1 INTRODUCTION

This chapter presents a discussion and final conclusions of the first study within the domain of market orientation, and describes a conceptual and empirical investigation of the firms' differences in market-oriented behaviour levels across their domestic and export operations. The implication of the findings are analysed in the context of their contribution to both marketing theory and practice. In the first section, the contributions of the study to the existing body of marketing literature are outlined in the form of both theoretical and methodological implications. Managerial implications of the research are also discussed and several practical recommendations relevant to exporting organisations are provided. In the second section, the study limitations are outlined and some avenues for further research are indicated.

7.2 THEORETICAL AND METHODOLOGICAL IMPLICATIONS

The present theory surrounding the construct of market orientation is mostly concentrated on domestic based literature. Only more recently, have researchers started to study the firms' market-oriented behaviour in the exporting context. Subsequently, some authors posit that firms may have different levels of market-oriented behaviour across their domestic and export markets, however to date, no empirical research has been undertaken to investigate this issue. This study has provided insights into firms' differences in market-oriented behaviour and provided empirical evidence of the existence of differential market-oriented behaviour levels across firms' domestic and export operations. However, little is known about factors that lead to firms' differences in their market-oriented behaviour levels and whether such differences have any impact on business performance. In order to deliver the above, the following sub-sections discuss the theoretical and

methodological implications of antecedents and consequences of firm's differences in market-oriented behaviour levels across their domestic and export markets.

7.2.1 Measurement Implications

This study has contributed to the existing literature by developing and quantitatively testing differences in market-oriented behaviour levels across firms' domestic and export operations and in the differences in domestic and export market environments scales. First, a measure of differences in market-oriented behaviour levels across firms' domestic and export operations was constructed in which the scale taps the difference in the firm's generation, dissemination and responsiveness to market intelligence in the domestic and export markets. Second, a measure of differences in domestic and export market environments was developed. The development of valid measures of these two scales thus extends the application of market orientation theory and contributes to the growing body of export knowledge. In some ways, it can be argued that the measures presented in this study provide an important contribution to the scientific studies of market orientation and in marketing as a whole.

The applicability of the scales developed in this study has enhanced our understanding of market orientation and environmental turbulence in the context of internationally active firms' domestic and exporting operations. The scales were shown to be stable and can be used to assess firms' differences in their levels of market-oriented behaviour across their domestic and export operations and the differences in domestic and export market environments that firms encounter in domestic and foreign market operations.

In addition to the scales of differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments, this research is also the first to operationalise market orientation at the domestic operations context. The exporting literature in particular, thus far, only assumed that the *general* level of market orientation studies in most research provides an implicit reference to the firms' domestic operations. However, there is no study that has

specifically measured firm's domestic market-oriented behaviour, thus this study presents the first attempt to investigate the domestic market-oriented behaviour. The construct and the components of domestic market-oriented and export market-oriented behaviour (i.e., the generation, dissemination and responsiveness of market intelligence), however, remain the same as previous studies (Cadogan et al. 2001; Jaworski and Kohli 1993). Nevertheless a clear distinction was made in the scales to reflect the emphasis given to the domestic settings. In this regard, all items used to measure domestic market-oriented behaviour were modified, in order to capture domestic aspects of firms' market-oriented behaviour.

Building on this argument, four measures used in this study were also modified slightly in order to emphasise the specific study settings. Subsequently, the measures for the exogenous environmental turbulence (domestic market turbulence, export market turbulence), business strategy (domestic strategy type, export strategy type) interfunctional interactions and mutual dependence (domestic marketing dependence and export marketing dependence) were modified accordingly, to reflect the emphasis placed on the specific markets, and in this case the domestic and export contexts.

7.2.2 Antecedents to Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

Prior to this study, no empirical studies have been undertaken to model firms' differences in market-oriented behaviour levels across their domestic and export operations. Previous research had mainly focused on the antecedents to market orientation either in the exporting contexts or the antecedents to some general level of market orientation. This study has developed a measure of differences in market-oriented behaviour levels across firms' domestic and exports operations and identified five key variables that have been found to be associated with such differences. These factors are: interfunctional interactions, interfunctional strategic symmetry, mutual dependence, market dominance and differences in domestic and export market environments which can aid managers in management of market orientation levels. The five identified variables act as antecedents

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to market orientation differences that lead to the development of the first model of the research. The model was then tested using structural equation modelling techniques that explained approximately 36% of the variance in firms' differences in market-oriented behaviour levels across their domestic and export operations.

As argued in Chapter One, if firms have differences in their market-oriented levels across their domestic and export operations, there would be some implications on their business performance. Subsequently, as it was shown from the second model that differences in their levels of market orientation across domestic and export markets have significant relationships with firms' overall sales performance to varying degrees (see the following discussion).

It was found that relative environmental turbulence is the most significant predictor of firm's differences in their market-oriented behaviour across domestic and export operations. As the environmental conditions in firms' domestic markets differ from their export markets, firms' market-oriented behaviour also tend to vary substantially across their domestic and export operations. As a result, the bigger the difference in the environmental turbulence, the bigger the market-oriented behaviour differences across firms' domestic and export operations. In addition, the study has provided further evidence that some aspects of interfunctional factors play an important role in influencing firms' differences in market-oriented behaviour levels across their domestic and export operations. Lack of interfunctional interactions and low interdependence between export and domestic operations also contribute to such differences in market-oriented behaviour levels. Different strategy pursued by exporting firms in their export and domestic markets, and market dominance – the importance of a particular market in terms of the sales contribution to the organisation, are also significant predictors of firms' differences in their domestic and export operations.

7.2.3 Consequences of Firms' Differences in Market-Oriented Behaviour Levels Across their Domestic and Export Operations on Organisational Performance

The study has also developed a framework of performance consequences of domestic market-oriented and export market-oriented behaviour. Prior to this study, theory surrounding the market orientation centred on either domestic or export market orientation behaviour. The theoretical underpinning of the second framework developed in this study is that a firm's domestic market-oriented behaviour level differs from its export market-oriented behaviour levels and such differences may affect its performance. The study also contributes the first attempt to model firms' market orientation differences across their domestic and export operations and the implications of such differences on organisational performance. This provides an important contribution to the market orientation theory and in marketing in general. In doing so, this study presents the first step in integrating domestic and export marketing strategies by examining the impact of domestic market-oriented and export market-oriented behaviour simultaneously on organisational performance.

Specifically, modelling domestic market-oriented and export market-oriented behaviour simultaneously provides additional insights into the present understanding of market orientation knowledge and theory (c.f. Katsikeas, Leonidou and Morgan 2000). Furthermore, by examining the combined effects of domestic market-oriented and export market-oriented behaviour on performance, a more holistic approach to analysing market orientation is offered and should advance our understanding of market orientation knowledge and theory. Specifically, and as hypothesised, the degree to which a firm exhibits domestic market-oriented behaviour, and also export market-oriented behaviour has a positive impact on firm's performance. Thus, the findings from this study confirm the important role of domestic market-oriented and export market-oriented behaviour in predicting organisational performance.

The environmental turbulence in the domestic and export markets was also found to influence market-oriented behaviour - performance relationships, but the effects vary depending on the context. The findings provide further evidence that firms' domestic

market turbulence and export market turbulence moderate the domestic market-oriented and export market-oriented behaviour relationship with measures of organisational performance. This issue is discussed further in the next section. The results, in general, are in support of studies that find the moderator effects such as those by Appiah-Adu (1998); Cadogan et al. (2002), Gray et al. (1998); Greenley (1995a), Grewal and Tansuhaj (2001); Harris (2001) and Homburg and Pflesser (2000).

7.2.4 Highlights of Key Results for the Relationship Between Market-Oriented Behaviour, Environmental Turbulence and Overall Performance

The findings of this study contribute to our knowledge in this area by providing a number of insights into the role of environmental conditions in moderating the market orientation and performance relationship. Furthermore, the results also suggest that firms can still reap better performance with low market orientation levels. This is because the association between market orientation and performance does change in strength and direction under differing levels of environmental turbulence. In fact the study findings point out that firms do not necessarily have to maintain a high level of market orientation in all environmental conditions in order to achieve superior performance. This seems to run counter to some findings of previous research.

Figure 7.1 provides a matrix that suggests an ideal situation for firms facing different forces of environmental turbulence in their domestic and export markets. As shown in the figure, a firm may possibly face any one of the four sets of domestic environmental turbulence and export environmental turbulence. These sets of domestic and export environmental turbulence are represented in four quadrants: A, B, C and D. As the environmental moderators play a significant role in determining performance, a firm needs to be more responsive to environmental turbulence to achieve a better performance level. Subsequently, firms that could match the domestic market-oriented and export market-oriented behaviour levels to the environmental turbulence in the domestic and export markets could achieve optimal performance. In other words high performing firms are the ones that manage to successfully identify the level of environmental turbulence and align them with the market orientation levels. Hence, understanding the set of possible match

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between levels of market-oriented behaviour and forces of environmental conditions could enhance a firm's performance. Cell A demonstrates a firm that faces a low level of domestic and export environmental turbulence as opposed to Cell D. Cell B depicts a situation where a firm's domestic environmental turbulence is lower than its export environmental turbulence, while Cell C shows that a firm's domestic environmental turbulence is higher than its export environmental turbulence level.

Given the level of domestic and export environmental turbulence levels, an exporting organisation can enhance its performance if it can match the level of market-oriented levels with that of its environmental conditions. The ideal situations for each quadrant are described next.

Figure 7.1: Domestic Market-Oriented (DMO) and Export Market-Oriented (EMO) Behaviour Levels and Firms' Optimal Situations

Export Environmental Turbulence

		LOW	HIGH
	LOW	A	B
Domestic Environmental Turbulence			
	HIGH	C	D

Cell A

Cell A demonstrates a situation where a firm faces low levels of environmental turbulence in both domestic and export markets. Looking at the figures presented in Section 6.3.3.3, a low level of domestic environmental turbulence has adverse effects on overall sales performance when a firm has a high domestic market-oriented behaviour. Conversely, being in Cell A, a low level of domestic market-oriented behaviour is sufficient to achieve better overall sales performance under the conditions of very low domestic market turbulence. For the firm's export operations, low export market-oriented behaviour heightens overall sales performance when the export market turbulence is low. When the export market turbulence is high, higher export market-oriented behaviour reduces a firm's overall performance.

Cell B

If a firm experiences low domestic environmental turbulence and high export environmental turbulence as in Cell B, the benefits from such situations could only be attained if a firm can manage market orientation levels across their domestic and export operations. In the domestic context, low domestic market-oriented behaviour level is associated positively with overall sales performance when the domestic market turbulence is very low. Overall, the optimal situation for low domestic market-oriented behaviour is similar to the one presented earlier (as in Cell A) – which indicates a low level of domestic market-oriented is positively related to overall performance when the domestic market turbulence is medium to high.

For the firm's exporting operation, it can still achieve better overall sales performance when the export environmental turbulence is high by maintaining low export market-oriented behaviour. In other words, when there is high turbulence in the export markets, engaging lower export market-oriented behaviour leads a firm to achieve better sales performance.

Cell C

Cell C shows high domestic environmental turbulence, but low environmental turbulence in the firm's export markets. Under such circumstances, a firm can benefit if it has medium to high domestic market-oriented behaviour. On the other hand, firms would gain from low export environmental turbulence when its export market-oriented behaviour is high.

Cell D

The level of environmental turbulence in both the firm's domestic and export markets is high. Overall, given the environmental turbulence, firms would be benefit from the domestic market-oriented behaviour being high. On the other hand, low export market-oriented behaviour is beneficial under such environmental conditions.

7.3   IMPLICATIONS FOR MARKETING PRACTICE

The findings suggest that that the study sample exhibits different levels of market-oriented behaviour across their domestic and export operations. The finding also show that being market-oriented is critical for organisational success. This is evident from the study that domestic market-oriented and export market-oriented behaviour have strong positive association with firms' performance. However, further analysis reveals that, and as discussed in the previous section, the relationships between market-oriented behaviour and performance were not a straightforward process due to the presence of environment moderators that tend to alter the nature of the relationships. The findings also show that the effects of domestic market-oriented and export market-oriented behaviour on performance could be positive or negative depending on the levels of environmental turbulence which firms encounter in the markets. Of particular importance is that the relationships between market-oriented behaviour in the domestic and export markets display different modes.

7.3.1 Consequences of Domestic Market-Oriented and Export Market-Oriented Behaviour on Organisational Performance

This study also found that domestic market-oriented behaviour was positively associated with overall sales performance, and the relationship returned to negative only when the domestic market turbulence was at a very low level (at 2.21 of a 7-point scale; see Section 6.5.4.4.). This may indicate that the costs of being more domestic market-oriented at home increase only marginally relative to the increase in benefits accruing from being domestic market-oriented at home as turbulence increases. Thus, when the domestic market forces are strong, higher domestic market-oriented behaviour level is beneficial for firms' performance. As overall sales performance is a function of domestic sales performance and domestic dependence, it appears that firms would enjoy the benefits of higher domestic market-oriented behaviour through improved domestic sales performance. The implication to the managers is that they need to be aware of the nature of the interrelationship between domestic market-oriented behaviour and overall sales performance. Indeed, with higher level of domestic dependence, firms should commit more resources in order to generate, disseminate and respond to domestic market intelligence. This will strengthen firms' both domestic and overall performance.

For the firms export operations, export market-oriented behaviour was found to have positive association with overall sales performance where export market turbulence moderates the relationship. The relationships between export market-oriented behaviour and overall sales performance could be either negative or positive depending on the degree of export market turbulence. For example, in an environment characterised by low export market turbulence, high export market-oriented behaviour level is positively associated with overall sales performance. As the export environment becomes highly intensified, increase in export market-oriented behaviour reduces firms' sales performance. This may indicate that the costs of being export market-oriented under high export turbulence increase, and the benefits, accruing from being export market-oriented under these conditions may not grow accordingly. Furthermore, the results also indicate that performance as measured at the domestic and exporting levels are both predictors of the organisational performance. Indirectly, the findings suggest that both domestic market-

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oriented and export market-oriented behaviour can predict overall sales performance, which ultimately leads to improved organisational financial performance.

From the findings it is important that managers are able to comprehend the complexity of the relationships among variables of interests; domestic market-oriented behaviour, export market-oriented behaviour, domestic and export market turbulence and the various performance indicators. Subsequently, understanding how environmental forces interact with market-oriented behaviour becomes a prerequisite for successful implementation of market orientation across organisations. In other words, *matching* the market orientation levels to the firms' environmental forces becomes very critical for strategic marketing (Gatignon and Xuereb 1997), and for organisational success (Lukas, Tan and Hult 2001; McKee, Varadarajan and Pride 1989; Zajac, Kraatz and Bresser 2000). In other words, the findings suggest that superior organisational performance can be achieved if firms are capable of aligning their internal capabilities with external forces.

The contention is that market orientation and environmental conditions interact in a dynamic co-alignment process resulting in a fit between market orientation and its environment thus leading to positive implications on performance (Venkatraman and Prescott 1990). This is not something new, as it has a rich tradition in strategic management research, particularly with respect to contingency theory (see Donaldson 2001; Grant 2003; McDaniel and Kolari 1987; McKee, Varadarajan and Pride 1989; and Miller 1988). Environmental conditions in firms' domestic and export markets thus provide a foundation for firms' strategic management process, and managers' inability to predict environmental forces could pose a fundamental challenge to their strategic planning activities (Grant 2003; Tan and Tan 2005). For managers, this study suggests that market orientation – environment compatibility is important as it affects firms' outcomes, thus market-oriented organisations need to put high priority in understanding their business environment so that appropriate response plan (i.e., generation, dissemination and responsiveness to market intelligence) can be designed and implemented.

In light of the above suggestion, marketing managers also need to remain cautious about some potential problems when attempting to align market orientation levels to the environmental conditions. One setback of this strategy is that environment conditions in the export or domestic markets may not easily be monitored and categorised. For example, in industries that experience high growth, market conditions are likely to change drastically, making it difficult for firms to keep track with the changes. Furthermore, fine-tuning market orientation levels to match environmental levels are also not without criticism. Slater and Narver (1994) argue that maintaining market orientation is complex and expensive and requires considerable resources. As a result, adjusting market orientation to dynamic environmental turbulence may not be cost-effective in the long run. However, as the study suggests, managers' willingness and capability to develop strategy to develop appropriate market orientation levels when facing environmental changes may become more important features for strategic marketing process and this determines firms' profitability and ultimately their survival.

The study, as well as the findings from past research has provided strong evidence that firms' domestic market-oriented and export market-oriented behaviour significantly correlated with various measures of organisational success. Furthermore, despite the study findings that suggest market orientation could be negatively associated with performance, it is important to note that the *overall* results, as presented in Section 6.5.4 showed that higher domestic market-oriented and export market-oriented behaviour have always had positive linkage to overall performance. However, a further implication from the finding here is that managers need to be aware that higher market orientation levels are not always necessary. Indeed, in some circumstances, higher market orientation levels could reduce firms' performance (Cadogan, Cui and Li 2003, Gray et al 1998; Greenley 1995a). This is possible as developing and maintaining market orientation is time consuming and expensive in terms of financial expenditure, resource investment and opportunity costs (Cadogan, Cui and Li 2003; Greenley 1995a), thus the associated benefits derived from engaging in such activities lead to deteriorating performance.

7.3.2 Differences in Market-Oriented Behaviour Levels Across Firms Domestic and Export Operations and Difference in Domestic and Export Market Environment

Although no direct relationship between differences in market-oriented behaviour levels across firms' domestic and export operations and performance is modelled and tested, this research provides evidence that the degree of a firm's level of domestic market-oriented and export market-oriented behaviour would have some implications on its performance. Additionally, the environmental moderators also have different effects across different markets. The findings suggest that the nature of the interrelationship between domestic market-oriented behaviour and organisational sales performance is different from that of export market-oriented behaviour and overall sales performance. Subsequently, such differences in the market-oriented behaviour levels across firms' operations have major implications for marketing managers.

In this regard, it is important for marketing practitioners to identify whether their firms have similar or different levels of market-oriented behaviour across their business operations. Managers also need to analyse whether such differences or similarities in firms' market-oriented behaviour are warranted. Similarly, in light of the finding that suggest the important role of environmental turbulence as moderators, firms also need to know the extent to which environmental turbulence in firms' domestic markets differ from their export markets. Indeed, with the newly developed differences in market-oriented behaviour levels across firms' domestic and export operations and differences in domestic and export market environments scales, firms may be able to use them in order to address this issue.

Consequently, the scales can be used as an analytical tool to investigate firms' commitment and manage the levels of their market orientation activities in the domestic and export operations. For example, firms wishing to pursue specific objectives such as achieving greater market share or increasing profitability in domestic and/or export markets need to assess the degree to which it generates, disseminates and responds to market information across different markets. A firm pursuing market share strategy, when

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environmental forces are highly intensified, need to make sure that the market orientation is substantially high in the domestic markets as compared to the export markets. Thus, the differences in market-oriented behaviour levels across firms' domestic and export operations scale can be used to gauge whether a firm has really given enough emphasis to fulfil the customers needs and wants through the implementation of market-oriented activities in that particular market. At the same time the firm also needs to consider the level of environmental conditions in both operations, so that appropriate marketing strategy could be developed and implemented.

7.4 LIMITATIONS AND AVENUES FOR FUTURE RESEARCH

The limitations of this study are due to trade-off decisions required when conducting research of this nature. The following section highlights several limitations to the study with a view to stimulating future research in this area.

This study represents the first attempt to study key drivers and performance consequences of firms' differences in market-oriented behaviour levels across firms' domestic and export operations. The two models presented in this study were tested using rigorous analysis technique thus they presented a high degree of generalisability. Nevertheless, the frameworks developed and tested in this study, must be further tested on different samples in order to provide additional evidence of their robustness and their generalisability. As a result, there is a need to replicate the frameworks and relationships described in the hypotheses. Notably, the sample was drawn from the British exporters, thus it is possible that findings from the relationships established in this study may differ depending on the country of origin of the exporters. Therefore, replication of the study with samples drawn from other countries would provide cross-cultural validation of the findings and offer indication as to whether they can be generalised.

In addition, given the large number of variables used in this study, it is possible that lack of power may be possible. A more rigorous approach would be the use of multi-item product terms, which requires very much larger sample sizes. Thus, replication with a larger sample size may provide further empirical insights into the interrelationship discussed in the study. With a larger sample size, perhaps firms could be classified into several subgroups (e.g., small, medium and large, or service and manufacturing) so that cross-group analysis could be performed. This would enable similarities and differences among groups to be identified and more specific management guidelines could be developed.

While special attention was given to follow the methodological guidelines in locating appropriate informants, ensuring key informant knowledgeability, guaranteeing anonymity, and designing the survey to maximize respondent objectivity, the potential still exists for information bias in the data set. One area of the study, which has implication for future research directions, concerns the issue of the choice of respondents. Although CEOs and other senior management chosen in this study are in a position to provide knowledgeable information about the constructs measured here, data collected from multiple sources, such as from managers and employees with specific responsibility for the domestic and export operations would lead to a more complete understanding of the relationships between market orientation difference, domestic market-oriented behaviour and export market-oriented behaviour and performance. Confidence in the validation of the framework would increase through replication work which employed multiple respondents approach. For example, as discussed in Chapter Four, dyad techniques where each respondent from domestic and export functions or departments could be chosen to answer questions specific to their operations. In this case the domestic and export marketing managers paired dyad would be the optimal respondents that future study could consider.

This study has identified five potential influences of differences in market-oriented behaviour across firms' domestic and export operations. However, it has not identified all possible antecedents factors. Consequently, it may be that developing more detailed

models of its determinant can generate new insights into the development of differences in market-oriented behaviour across firms' domestic and export operations. Researchers may be interested in investigating whether additional factors such as interfunctional dynamics (rivalry, coordinating mechanism, collaboration, trusts, and commitment), structural processes (age, formalisation, departmentalisation, autonomy), organisational culture (shared values, norms, behaviour, and artefacts) and top management factors (emphasis, risk postures, and experience) have any significant impact that inhibits or facilitates firms' differences in market-oriented behaviour levels across their domestic and export operations.

Furthermore, while the research has provided some insights into the indirect link between domestic market-oriented behaviour on domestic and export performance, an examination of the potential direct and indirect linkages between domestic market-oriented behaviour on the export success may also prove to be fruitful. It is also possible that there are some synergies between domestic market-oriented behaviour and export market-oriented behaviour that would affect the domestic and export performance respectively. Examples of potential research questions in this area include the following. Does a firm's level of domestic market-oriented behaviour have any influence on its export market-oriented behaviour and vice versa? Alternatively, does higher level of domestic market-oriented behaviour have significant influence on firms' export market-oriented behaviour behaviour? An examination of such issues may provide new empirical insights into these relationships. In this way, a better understanding of the interaction and interrelationships between domestic market-oriented behaviour and export market-oriented behaviour could be developed.

Throughout this study, it has been found that domestic and export environments have a moderating impact on domestic market-oriented behaviour and export market-oriented behaviour-performance respectively. However, with the opening of national borders through free trade, foreign direct investment and globalisation, firms may possibly face *similar* environmental turbulence in both export and domestic markets in some part of their operations. Subsequently, it would be interesting to see whether domestic

environment has any direct or moderating effects on firms' export operations. Similarly, export environment pressures may possibly have some moderating effects on firms' domestic operations. Consequently it may be possible for firms to adopt domestic strategy based on the level of environmental turbulence in their export operations, thus providing an interesting avenue for further research.

Furthermore, additional performance criteria may also be important and may provide insightful information. For example, the financial performance used in this study uses subjective measures, thus it would be advantageous if the objective performance measures (such as ROI and ROA) and additional subjective assessment (such as new product success) could be obtained and tested. Further examination of other potential consequences is also merited.

This research conceptualised market-oriented as a single construct of intelligence generation, dissemination and responsiveness. However, there are studies that treat market orientation as three conceptually distinct market-oriented behaviour (intelligence generation, intelligence dissemination and intelligence responsiveness) (e.g., Jaworski and Kohli 1993). If a similar approach were adopted in an extension of the current study, it would be possible to see the interrelationships of the export market-oriented behaviour and domestic market-oriented behaviour constructs on performance at a micro-level. As a result, it is strongly recommended that future research examines the impact of domestic market-oriented behaviour and export market-oriented behaviour at the three constructs separately. Furthermore, it may also be possible to see whether there is any linkage or similarity between the constructs that are adopted in the domestic and export markets. For example, is there any linkage between a firm's generation of market intelligence in its domestic and export markets? If so, how does it impact on performance? Do firms respond to market intelligence in the same way in both the domestic and export markets under certain environmental conditions? A deeper investigation into the intra-dynamics of the framework developed in this study has the potential to extend the contribution of this study.

The hypotheses were tested with cross-sectional data and are therefore unable to conclude empirically the causality in the relationships examined. Having established these linkages using cross sectional data, it may be worthwhile to utilise longitudinal research designs in future research to empirically confirm empirically the causality and assess performance implications over time. In a longitudinal study, researchers may be able to directly observe the changes in performance attributed to the variables identified in the models.

In addition, the scales developed in this study could provide future researchers with the opportunity to replicate and extend the theories developed here, and enable comparability of future work in the same field. Furthermore, future work in this area should not be restricted to the domestic and export markets as presented in this study. More specifically, an interesting area where the scales, as well as the framework developed in this study should be able to extend the study to address whether an exporting firm has different export market-oriented behaviour across its exporting markets. Even in the domestic markets, managers may want to know whether firms have different market-oriented behaviour across their markets or products and whether such differences or similarities have important implications for their success.

In summary, the study supports previous findings on the market orientation–performance relationship and provides empirical evidence that market orientation theory can be extended to develop firms' differences in market-oriented behaviour levels across their domestic and export market models. Additional research is required in order to gain a better understanding of the relationships uncovered in this study. The findings of this study will hopefully stimulate further research in the area and the suggestions provided above should provide preliminary interests and directions.

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APPENDICES

FINAL POOL OF ITEM USED IN THE QUESTIONNAIRE

Export Market-Oriented Behaviour

Export Market Intelligence Generation (EXGEN)

EXGEN1	we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our export markets
EXGEN2	we constantly monitor our level of commitment and orientation to serving export customer needs
EXGEN3	we are slow to detect fundamental shifts in our export environment (e.g., export regulation, technology, economy) (R)
EXGEN4	we periodically review the likely effect of changes in our export environment (e.g., regulation, technology)
EXGEN5	we generate a lot of information in order to understand the forces which influence our overseas customers' needs and preferences
EXGEN6	we do not generate enough reliable/relevant information concerning our competitors' activities in our export markets (R)

Export Market Inteligence Responsiveness (EXRES)

EXRES1	if a major competitor were to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately
EXRES2	we respond quickly to significant changes in our competitors' price structures in foreign markets
EXRES3	we rapidly respond to competitive actions that threaten us in our export markets
EXRES4	we are quick to respond to important changes in our export business environment (e.g., regulation, technology, economy)
EXRES5	our export strategy for competitive advantage is based on our understanding of export customer needs

Export Market Inteligence Dissemination (EXDIS)

EXDIS1	too much information concerning our export competitors is discarded before it reaches decision makers (R)
EXDIS2	information which can influence the way we serve our export customers takes forever to reach export personnel (R)
EXDIS3	important information about our export customers is often 'lost in the system' (R)
EXDIS4	information about our export competitors' activities often reaches relevant personnel too late to be of any use (R)
EXDIS5	important information concerning export market trends (regulation, technology) is often discarded as it makes its way along the communication chain (R)
EXDIS6	top management regularly discuss export competitors' strengths and strategies

Domestic Market-Oriented Behaviour

Domestic Market Intelligence Generation (DOMGEN)

DOMGEN1	we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our UK markets
DOMGEN2	we constantly monitor our level of commitment and orientation to serving our UK customer needs
DOMGEN3	we are slow to detect fundamental shifts in our industry in the UK (e.g., regulation, technology, economy) (R)
DOMGEN4	we periodically review the likely effect of changes in our industry (e.g., UK regulation, technology)
DOMGEN5	we generate a lot of information in order to understand the forces which influence our UK customers' needs and preferences
DOMGEN6	we do not generate enough reliable/relevant information concerning our competitors' activities in our UK markets (R)

	Domestic Market Intelligence Responsiveness (DOMRES)
DOMRES1	if a major competitor were to launch an intensive campaign targeted at our UK customers, we would implement a response immediately
DOMRES2	we respond quickly to significant changes in our competitors' price structures in our UK markets
DOMRES3	we rapidly respond to competitive actions that threaten us in our UK markets
DOMRES4	we are quick to respond to important changes in our UK business environment (e.g., regulation, technology, economy)
DOMRES5	our strategy for competitive advantage in the UK is based on our understanding of customer needs

	Domestic Market Intelligence Dissemination (DOMDIS)
DOMDIS1	too much information concerning competitors in our UK markets is discarded before it reaches decision makers (R)
DOMDIS2	information which can influence the way we serve our UK customers takes forever to reach relevant personnel (R)
DOMDIS3	important information about our UK customers is often 'lost in the system' (R)
DOMDIS4	information about our competitors' activities in the UK market often reaches relevant personnel too late to be of any use (R)
DOMDIS5	important information concerning market trends (regulation, technology) is often discarded as it makes its way along the communication chain (R)
DOMDIS6	top management regularly discuss our UK competitors' strengths and strategies

	Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations
MODIFF1	Generating information on market trends
MODIFF2	Monitoring customer satisfaction
MODIFF3	Detecting fundamental environmental shifts
MODIFF4	Rapidly communicating important information
MODIFF5	Disseminating information to all levels in the business
MODIFF6	Communicating between employees
MODIFF7	Discussing customers' needs with other units
MODIFF8	Updating the business on important market changes
MODIFF9	Speed of market response
MODIFF10	Competitive response activities
MODIFF11	Overcoming competitive threats

Environmental Turbulence

	Domestic Market Turbulence (DMT)
DME1	our customers' product preferences change quite a bit our time
DME2	new customers tend to have product-related needs that are different from those of our existing customers
DME3	our customers in the UK tend to look for new products all the time

	Export Market Turbulence (EMT)
EME1	our export customers' product preferences change quite a bit over time
EME2	new export customers tend to have product-related needs that are different from those of our existing export customers
EME3	our export customers tend to look for new products all the time

Differences in Domestic and Export Market Environments (RMT)

RMT1	Export customers have greater predictability
RMT2	Export customers have greater price sensitivity (R)
RMT3	Export customers have similar buying patterns
RMT4	Export customers have more stable product preferences

Strategy Types

Defender	This type of business unit attempts to locate and maintain a secure niche in a relatively stable product or service area. The business unit tends to offer a more limited range of products or services than its competitors, and it tries to protect its domain by offering higher quality, superior service, lower prices, and so forth. Often this business unit is not at the forefront of developments in the industry – it tends to ignore industry changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited area.
Prospector	This type of business unit typically operates within a broad product-market domain that undergoes periodic redefinition. The business unit values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. This organisation responds rapidly to early signals concerning areas of opportunity, and these responses often lead to a new round of competitive actions. However, this business unit may not maintain market strength in all of the areas it enters.
Analyzer	This type of business unit attempts to maintain a stable, limited line of products or services while at the same time moving quickly to follow a carefully selected set of the more promising new developments in the industry. This organisation is seldom "first in" with new products and services. However, by carefully monitoring the actions of major competitors in areas compatible with its stable product-market base, this business unit can frequently be "second in" with a more cost-efficient product or service.
Reactor	This type of business unit does not appear to have a consistent product-market orientation. This organisation is usually not as aggressive in maintaining established products and markets as some of its competitors, nor is it willing to take as many risks as other competitors. Rather, this type of business unit responds in those areas where it is forced to by environmental pressures.

Interfunctional Interactions (INTERACTIONS)

INTERACTION1	Had formal meetings
INTERACTION2	Circulated memorandums
INTERACTION3	Circulated reports
INTERACTION4	Circulated forms

Mutual Dependence

Export Marketing Dependence (EXDEP)

EXDEP1	Resources (e.g., personnel, equipment, information)
EXDEP2	Supports (e.g., advice or technical assistance)
EXDEP3	Outputs (e.g., new product designs)

Domestic Marketing Dependence (DOMDEP)

DOMDEP1	Resources (e.g., personnel, equipment, information)
DOMDEP2	Supports (e.g., advice or technical assistance)
DOMDEP3	Outputs (e.g., new product designs

Organisational Performance

Domestic Sales Performance (DOMESTIC SALES)

DSG1	Percentage of growth/decline:
DSG2	how does your average annual UK sales growth/decline compare to the industry average?

Domestic Profit Performance (DOMESTIC PROFIT)

Overall, how profitable have your UK business operations been over the past 3 years?

DPP1	1999-2000
DPP2	2000-2001
DPP3	2001-2002

Export Sales Performance (EXPORT SALES)

ESG1	Percentage of growth/decline:
ESG2	How does your average annual export sales growth/decline compare to the industry average?

Export Profit Performance (EXPORT PROFIT)

Overall, how profitable has exporting been over the past 3 years?

EPP1	1999-2000
EPP2	2000-2001
EPP3	2001-2002

Export Dependence

Approximately what percentage of total sales turnover is derived from <u>exports</u>?

Business Experience

How long has your company been in business? (years)

How long has your company been exporting? (years)

Firm Size

Approximately how many full-time employees does your company currently have? (only consider those on your UK payroll).

Approximately, what is your company's annual total sales turnover?

Export Destinations

Which of the following regions do you currently export to?

EU; North America; Asia; Eastern Europe; Middle East; Africa; South/Central America; Australia/New Zealand; Others.

Number of Countries Exported

Approximately, to how many countries does your company export?

PRE-TESTING QUESTIONNAIRE

BUSINESS PRACTICES OF BRITISH EXPORTERS

ASTON
UNIVERSITY

ASMAT NIZAM
DOCTORAL CANDIDATE

AND

DR JOHN W. CADOGAN
LECTURER IN MARKETING

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1. *Below is a list of statements other managers have made about marketing and sales issues relating to* <u>*EXPORT MARKETING*</u> *operations within their companies. Please use the following scale to indicate the extent to which the statements below describe the situation in* <u>*your*</u> *company (place the appropriate number in the box provided).*

Very Strongly Disagree			Neither Agree nor Disagree			Very Strongly Agree
1	2	3	4	5	6	7

In our EXPORT operations ...

we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our export markets .... ☐

we constantly monitor our level of commitment and orientation to serving export customer needs......... ☐

we are slow to detect fundamental shifts in our export environment (e.g., export regulation, technology, economy).. ☐

we periodically review the likely effect of changes in our export environment (e.g., regulation, technology).. ☐

we generate a lot of information in order to understand the forces which influence our overseas customers' needs and preferences... ☐

we do not generate enough reliable/relevant information concerning our competitors' activities in our export markets... ☐

if a major competitor were to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately... ☐

we respond quickly to significant changes in our competitors' price structures in foreign markets .... ☐

we rapidly respond to competitive actions that threaten us in our export markets............................ ☐

we are quick to respond to important changes in our export business environment (e.g., regulation, technology, economy)... ☐

our export strategy for competitive advantage is based on our understanding of export customer needs... ☐

too much information concerning our export competitors is discarded before it reaches decision makers... ☐

information which can influence the way we serve our export customers takes forever to reach export personnel.. ☐

important information about our export customers is often 'lost in the system'................................. ☐

information about our export competitors' activities often reaches relevant personnel too late to be of any use.. ☐

important information concerning export market trends (regulation, technology) is often discarded as it makes its way along the communication chain... ☐

top management regularly discuss export competitors' strengths and strategies................................ ☐

employees in the export unit and those in other functional areas (e.g., R & D) help each other out......... ☐

there is a strong collaborative working relationship between export and 'production'........................ ☐

2. *Below is a list of statements other managers have made about marketing and sales issues relating to* <u>*DOMESTIC (UK) MARKETING*</u> *operations within their companies. Please use the following scale to indicate the extent to which the statements below describe the situation in <u>your</u> company (place the appropriate number in the box provided).*

Very Strongly Disagree			Neither Agree nor Disagree			Very Strongly Agree
1	2	3	4	5	6	7

In our <u>UK markets</u> operations ...

we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our UK markets.. ☐

we constantly monitor our level of commitment and orientation to serving our UK customer needs........ ☐

we are slow to detect fundamental shifts in our industry in the UK (e.g., regulation, technology, economy).. ☐

we periodically review the likely effect of changes in our industry (e.g., UK regulation, technology)... ☐

we generate a lot of information in order to understand the forces which influence our UK customers' needs and preferences... ☐

we do not generate enough reliable/relevant information concerning our competitors' activities in our UK markets.. ☐

if a major competitor were to launch an intensive campaign targeted at our UK customers, we would implement a response immediately.. ☐

we respond quickly to significant changes in our competitors' price structures in our UK markets .... ☐

we rapidly respond to competitive actions that threaten us in our UK markets................................ ☐

we are quick to respond to important changes in our UK business environment (e.g., regulation, technology, economy)... ☐

our strategy for competitive advantage in the UK is based on our understanding of customer needs........ ☐

too much information concerning competitors in our UK markets is discarded before it reaches decision makers .... ☐

information which can influence the way we serve our UK customers takes forever to reach relevant personnel .... ☐

important information about our UK customers is often 'lost in the system'................................. ☐

information about our competitors' activities in the UK market often reaches relevant personnel too late to be of any use .... ☐

important information concerning market trends (regulation, technology) is often discarded as it makes its way along the communication chain .... ☐

top management regularly discuss our UK competitors' strengths and strategies................................ ☐

Please read the following four statements concerning types of business operations.

Type 1

This type of business unit attempts to locate and maintain a secure niche in a relatively stable product or service area. The export unit tends to offer a more limited range of products or services than its competitors, and it tries to protect its domain by offering higher quality, superior service, lower prices, and so forth. Often this business unit is not at the forefront of developments in the industry – it tends to ignore industry changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited area.

Type 2

This type of business unit typically operates within a broad product-market domain that undergoes periodic redefinition. The business unit values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. This organization responds rapidly to early signals concerning areas of opportunity, and these responses often lead to a new round of competitive actions. However, this business unit may not maintain market strength in all of the areas it enters.

Type 3

This type of business unit attempts to maintain a stable, limited line of products or services while at the same time moving quickly to follow a carefully selected set of the more promising new developments in the industry. This organization is seldom "first in" with new products and services. However, by carefully monitoring the actions of major competitors in areas compatible with its stable product-market base, this business unit can frequently be "second in" with a more cost-efficient product or service.

Type 4

This type of business unit does not appear to have a consistent product-market orientation. This organization is usually not as aggressive in maintaining established products and markets as some of its competitors, nor is it willing to take as many risks as other competitors. Rather, this type of business unit responds in those areas where it is forced to by environmental pressures.

1. *Which of these statements do you think* __best represent__ *your EXPORT operations?*
   (Please circle only one option).

   Our __EXPORT__ *business type is closest to .....*

Type 1	Type 2	Type 3	Type 4
1	2	3	4

2. *Which of these statements do you think* __best represent__ *your operations in the UK MARKETS?*
   (Please circle only one option).

   Our __UK business__ *type is closest to .....*

Type 1	Type 2	Type 3	Type 4
1	2	3	4

Please circle the number which indicates the extent to which the statements below describe the Export and UK (Domestic) operations in your company.

1. *Please compare your UK and Export marketing operations on the following activities:*

	Exporting Superior			About the Same			UK Operations Superior
Generation of information on market trends	1	2	3	4	5	6	7
Monitoring customer satisfaction	1	2	3	4	5	6	7
Detecting fundamental environmental shifts	1	2	3	4	5	6	7
Rapidly communicate important information	1	2	3	4	5	6	7
Disseminate information to all levels in business	1	2	3	4	5	6	7
Communication between employees	1	2	3	4	5	6	7
Discussing customers' needs with other units	1	2	3	4	5	6	7
Updating the business on important market changes	1	2	3	4	5	6	7
Speed of market response	1	2	3	4	5	6	7
Competitive response activities	1	2	3	4	5	6	7
Overcoming competitive threats	1	2	3	4	5	6	7

2. *Over the last 3 months the Export Marketing function and other (non-export focused) departments have ...*

	Very Strongly Disagree			Neither Agree nor Disagree			Very Strongly Agree
experienced problems coordinating work activities	1	2	3	4	5	6	7
had compatible goals and objectives	1	2	3	4	5	6	7
agreed on the priorities of each department	1	2	3	4	5	6	7
had senior managers who were "at odds"	1	2	3	4	5	6	7
hindered each other's performance	1	2	3	4	5	6	7
competed for the same resources	1	2	3	4	5	6	7
cooperated with each other	1	2	3	4	5	6	7

3. *For this firm to achieve its goals and responsibilities in its export markets, how much does it rely on other (non-export focused) departments' ...*

	Very Little			Moderately			Very Much
Resources (e.g., personnel, equipment, information)	1	2	3	4	5	6	7
Supports (e.g., advice or technical assistance)	1	2	3	4	5	6	7
Outputs (e.g., new product designs)	1	2	3	4	5	6	7

4. *During the past 3 months to what extent did the firm's Exporting function(s) have the following activities with the firm's other business functions (e.g., manufacturing, marketing/sales, etc):*

	Not At All			Moderately			To an Extreme Extent
Achieve collective goals	1	2	3	4	5	6	7
Share the same vision for the company.	1	2	3	4	5	6	7
Have a mutual understanding	1	2	3	4	5	6	7
Work together as a team.	1	2	3	4	5	6	7
Shared information	1	2	3	4	5	6	7
Shared resources.	1	2	3	4	5	6	7
Formal meetings	1	2	3	4	5	6	7
Memorandums.	1	2	3	4	5	6	7
Circulated reports	1	2	3	4	5	6	7
Circulated forms	1	2	3	4	5	6	7

5. Please use the following scale to indicate the extent to which the statements below describe the situation in your company (place the appropriate number in the box provided).

Not at all   To an extreme extent
| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 |

Please consider the interaction between and within functional areas/departments in your firm.

in this company, there is a sense of teamwork going right down to the 'shop floor'............................. ☐

functional areas in this company pull together in the same direction... ☐

the activities of our business functions (e.g., exports, marketing/sales, manufacturing, R&D, ☐
     finance/accounting, etc.) are integrated in pursuing a common goal ....

we resolve issues and conflicts through communication and group problem-solving.......................... ☐

people from different functional areas in our company discuss their problems openly and constructively... ☐

DECISION PROCESS RELATED TO EXPORT MARKETS

1. *Please allocate a total of 100 points between the following 5 departments (i.e., Export, Marketing, Finance/Accounting, Manufacturing, R&D) for each of the marketing decision processes identified in the column headings.*

Over the last 12 months how influential are the following departments in terms of:

DEGREE OF DEPARTMENTS' INFLUENCE ON DECISIONS PROCESSES

	New Product Development for Export Markets	Pricing for Export Markets	Improving Export Customer Satisfaction	Export Customer Service and Support
Export Function				
Marketing/Sales				
Finance/Accounting				
Manufacturing				
R&D				
TOTAL	100	100	100	100

DEGREE OF DEPARTMENTS' INFLUENCE ON DECISIONS PROCESSES

	Measurement Of Customer Satisfaction in Export Markets	Distribution Strategy in Export Markets	Expansions into New Export Markets	Advertising Messages for Export Markets
Export Function				
Marketing/Sales				
Finance/Accounting				
Manufacturing				
R&D				
TOTAL	100	100	100	100

DECISION PROCESS RELATED TO THE UK MARKETS

1. *Please allocate a total of 100 points between the following 5 departments (i.e., Export, Marketing, Finance/Accounting, Manufacturing, R&D) for each of the marketing decision processes identified in the column headings.*

Over the last 12 months how influential are the following departments in terms of:

DEGREE OF DEPARTMENTS' INFLUENCE ON DECISIONS PROCESSES

	New Product Development for UK Markets	Pricing Decisions for UK Markets	Improving UK Customer Satisfaction	UK Customer Service and Support
Export Function				
Marketing/Sales				
Finance/Accounting				
Manufacturing				
R&D				
TOTAL	100	100	100	100

DEGREE OF DEPARTMENTS' INFLUENCE ON DECISIONS PROCESSES

	Measurement of Customer Satisfaction in UK	Distribution Strategy in UK	Expansions into New UK Markets	Advertising Messages in UK
Export Function				
Marketing/Sales				
Finance/Accounting				
Manufacturing				
R&D				
TOTAL	100	100	100	100

2. *For this firm to achieve its goals and responsibilities in its* <u>UK markets</u>, *how much does it rely on Export Marketing's ...*

	Very Little		Moderately			Very Much	
Resources (e.g., personnel, equipment, information)	1	2	3	4	5	6	7
Supports (e.g., advice or technical assistance)	1	2	3	4	5	6	7
Outputs (e.g., new product designs)	1	2	3	4	5	6	7

Please use the scale below to indicate the extent to which you agree with each statement (place the appropriate number in the box provided).

Not at all
To an extreme extent

| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 |

EXPORT BUSINESS ENVIRONMENT

In our EXPORT markets ...

our export customers' product preferences change quite a bit over time .... ☐

new export customers tend to have product-related needs that are different from those of our existing export customers... ☐

our export customers tend to look for new products all the time... ☐

in our export markets, there are many 'promotion wars'.. ☐

one hears of a new competitive move in our export markets almost every day .... ☐

in our foreign markets, aggressive selling is the norm.. ☐

Regarding the impact of technology on your EXPORT business:

The technology in our industry is changing rapidly .... ☐

Technological changes provide big opportunities in our industry.. ☐

A large number of new product ideas have been made possible through technological breakthroughs in our industry.. ☐

UK BUSINESS ENVIRONMENT

In our UK markets ...

our customers' product preferences change quite a bit our time .... ☐

new customers tend to have product-related needs that are different from those of our existing customers... ☐

our customers in the UK tend to look for new products all the time .... ☐

in our UK markets, there are many 'promotion wars'.. ☐

one hears of a new competitive move almost every day in our UK markets .... ☐

aggressive selling is the norm in this country.. ☐

Regarding the impact of technology on your UK business operations:

The technology in our industry is changing rapidly .... ☐

Technological changes provide big opportunities in our industry.. ☐

A large number of new product ideas have been made possible through technological breakthroughs in our industry.. ☐

Please circle the number which best indicate the extent to which you agree on the following questions:

Relative to our customers in our UK market(s), Export customers have...

Greater Predictability	1	2	3	4	5	6	7	Less Predictability
Greater Price Sensitivity	1	2	3	4	5	6	7	Less Price Sensitivity
Similar Buying Patterns	1	2	3	4	5	6	7	Different Buying Patterns
More Stable Product Preferences	1	2	3	4	5	6	7	Less Stable Product Preferences

Relative to competitors in our UK market(s), Export competitors ...

Are Stronger	1	2	3	4	5	6	7	Are Weaker
Use Price Competition More	1	2	3	4	5	6	7	Use Price Competition Less
Use More Promotional Wars	1	2	3	4	5	6	7	Use Less Promotional Wars
Are More Threatening	1	2	3	4	5	6	7	Are Less Threatening

Relative to technology in our UK market(s), technological developments in our Export market(s) ...

Are More Radical	1	2	3	4	5	6	7	Are Less Radical
Are Major	1	2	3	4	5	6	7	Are Minor
Obsolete Quicker	1	2	3	4	5	6	7	Obsolete Slower
Provide More New Products	1	2	3	4	5	6	7	Provide Fewer New Products

SECTION 5: ABOUT YOUR COMPANY

1. *How long has your company been in business?* ☐ *years*

2. *How long has your company been exporting?* ☐ *years*

3. *Does your company have a separate formal export department? (Please tick)* Yes ☐ No ☐

4. a) *How many full-time employees does your company currently have?*
   (only consider those on your UK payroll) _____

   b) *Of these employees, how many are DIRECTLY involved with export matters?* _____

5. *Approximately what percentage of total sales turnover is derived from exports?* _____ %

6. *To how many countries does your company export?* _____ *number of countries.*

7. *Which of the following regions do you currently export to? (Please tick all the relevant boxes).*

EU Countries ☐	Eastern Europe ☐	South/Central America ☐
North America ☐	Middle East ☐	Australia/New Zealand ☐
Asia ☐	Africa ☐	Others: _____

8. *What are the main product groups produced by your firm? (Please tick the relevant box).*

Consumer Goods ☐	Industrial Goods ☐
Consumer Services ☐	Industrial Services ☐

COMPANY'S PERFORMANCE IN ITS EXPORT MARKETS

1. *Relative to our major competitor(s) in our <u>key export market(s)</u>, our <u>export sales revenue</u> is probably:*

   Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

2. *Relative to our major competitor(s) in our <u>key export market(s)</u>, our <u>operating costs</u> are probably:*

   Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

3. *In our <u>key export market(s)</u> the likelihood of a new competitor being able to <u>earn satisfactory profits</u> within 3 years after entry are:*

   Extremely Low | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely High

4. *How successful are your <u>export customers</u> in negotiating lower prices from you?*

   Not At All | 1 | 2 | 3 | 4 | 5 | 6 | 7 | To An Extreme Extent

5. *Over the past 3 years, what has been the average annual <u>growth/decline</u> rate of your EXPORT SALES? (Please delete as appropriate).*

   _____ % | Growth | Decline |

6. *How does your <u>average annual</u> EXPORT SALES <u>growth/decline</u> compare to the industry average?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

7. *Overall, how satisfied are you with your performance over the past 3 years, along the following dimensions? (Please circle the appropriate number).*

   Export Sales Volume very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied
   Export Market Share very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied
   Export Profitability very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied
   Export Market Entry very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied

8. *Overall, how PROFITABLE has EXPORTING been over the past 3 years?*

   1999-2000 very unprofitable 1 2 3 4 5 6 7 8 9 10 very profitable
   2000-2001 very unprofitable 1 2 3 4 5 6 7 8 9 10 very profitable
   2001-2002 very unprofitable 1 2 3 4 5 6 7 8 9 10 very profitable

9. *Overall, how would you rate your company's EXPORT PERFORMANCE over the past 3 years?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

COMPANY'S PERFORMANCE IN ITS UK MARKETS

1. *Relative to our largest competitors in our <u>key UK market(s)</u>, our <u>UK sales revenue</u> are probably:*

   Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

2. *Relative to our major competitors in our <u>key UK market(s)</u>, our <u>operating costs</u> are probably:*

   Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

3. *In our <u>key UK market(s)</u>, the likelihood of a new competitor being able to <u>earn satisfactory profits</u> within 3 years after entry are:*

   Extremely Low | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely High

4. *How successful are your customers in your key UK market(s) in <u>negotiating lower prices</u> from you?*

   Not At All | 1 | 2 | 3 | 4 | 5 | 6 | 7 | To An Extreme Extent

5. *Over the past 3 years, what has been the average annual <u>growth/decline</u> rate of your SALES in UK? (Please delete as appropriate).*

   _____ % | Growth | Decline |

6. *How does your <u>average annual</u> UK SALES <u>growth/decline</u> compare to the industry average?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

7. *Overall, how satisfied are you with your performance in your <u>key UK market(s)</u> over the past 3 years, along the following dimensions? (Please circle the appropriate number).*

Sales Volume in UK	very dissatisfied	1	2	3	4	5	6	7	8	9	10 very satisfied
Market Share in UK	very dissatisfied	1	2	3	4	5	6	7	8	9	10 very satisfied
Profitability in UK	very dissatisfied	1	2	3	4	5	6	7	8	9	10 very satisfied
New Market Entry	very dissatisfied	1	2	3	4	5	6	7	8	9	10 very satisfied

8. *Overall, how PROFITABLE has your operation in your <u>key UK market(s)</u> been over the past 3 years? (Please circle the number of your choice on the scale provided).*

1999-2000	very unprofitable	1	2	3	4	5	6	7	8	9	10 very profitable
2000-2001	very unprofitable	1	2	3	4	5	6	7	8	9	10 very profitable
2001-2002	very unprofitable	1	2	3	4	5	6	7	8	9	10 very profitable

9. *Overall, how would you rate your company's PERFORMANCE in your UK MARKET(S) over the past 3 years?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

OVERALL COMPANY'S PERFORMANCE (COMBINED DOMESTIC AND EXPORTS)

1. *Approximately, what is your company's annual TOTAL sales turnover? £*_____

2. *Over the past 3 years, what has been the average annual growth/decline rate of your FIRM'S TOTAL sales? (Please delete as appropriate box).*

   _____ % | Growth | Decline |

3. *How does your company's average annual total sales growth/decline compare to the industry average?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

4. *Overall, how satisfied is your company with its OVERALL PERFORMANCE (combined Domestic and Export) over the past 3 years, along the following dimensions? (Please circle the appropriate number).*

Sales Volume	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
Market Share	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
Profitability	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
Market Entry	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied

5. *Overall, how PROFITABLE has your company been over the past 3 years?*

1999-2000	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2000-2001	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2001-2002	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable

6. *Overall, how would you rate your company's OVERALL PERFORMANCE (combined Domestic and Export) over the past 3 years?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

7. *What is the relative influence of your firm's domestic and exporting activities on your company's overall performance?*

	Domestic is Major Contributor			About the Same			Export is Major Contributor	
Profits Objectives............................	1	2	3	4	5	6	7	8	9
Growth Objectives	1	2	3	4	5	6	7	8	9
Sales Objectives	1	2	3	4	5	6	7	8	9
Market Share Objectives	1	2	3	4	5	6	7	8	9
New Market Entry Objectives	1	2	3	4	5	6	7	8	9
New Product Success Objectives	1	2	3	4	5	6	7	8	9

8. *How much responsibility do you have on your firm's export and UK market operations? (Please tick)*

   Major Responsibility ☐   Some Responsibility ☐   No Responsibility ☐

9. *Please state your position or title in the company:*_____

Thank You For Your Time And Participation
Your Contribution To This Study Is Greatly Appreciated

If you would like to receive a summary report of the findings of this study, please enclose your business card along with this questionnaire in the reply envelope.

APPENDIX 4-3

COVER LETTER FOR PRE-TESTING

Date: _____
Email: asmatnat@aston.ac.uk
Tel: +44(0) 121-359-3611 *ext.* 4902

University logo
and address

Name and address of respondent

Dear _____,

We would very much appreciate your help with a study we are currently undertaking into the Business Practices of British Exporters. The study is concerned with marketing management and firm's practices in today's competitive environment. The findings of the study will both help identify the successful practices and major problems associated with implementing market orientation in UK and overseas markets and suggest areas for improvement.

As your answers are critical for the accuracy or our research, we would be extremely grateful if you could find the time to fill the attached questionnaire. I am well aware that this represents a demand on your already busy schedule, but your participation really could make the difference between success and failure of both this study and my Phd degree!

The information you provide will be used for the purpose of my thesis and anticipated marketing publications. However, your answers will stay confidential, and at no time will you or your firm be identified in the analysis. The questionnaire will take approximately 25 minutes for you to complete. We would be grateful if you could return it in the enclosed *post-paid* return envelope at your earliest convenience.

Because of the wide scope of companies involved in this study (large and small, product and service marketing) some of the questions may seem not applicable to your organisation. However, rather than not answering those particular questions, please adapt their interpretation to suit your organisation. For example, if you are not a large enough company to have an export marketing 'department', answer those questions in terms of the individual(s) whose function export marketing is, or, if you are a service organisation, translate 'manufacturing' into the terminology of your industry.

We would be more than happy to discuss any questions you may have and can be contacted at the address above. Alternatively, you could contact my supervisor Dr. John Cadogan on ext: 5035. Once again, thank you very much in advanced for your co-operation. Your support is greatly appreciated.

Yours sincerely

Asmat Nizam
Doctoral Candidate

John Cadogan
Lecturer in Marketing

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BUSINESS PRACTICES OF BRITISH EXPORTERS

ASTON
UNIVERSITY

ASMAT NIZAM
DOCTORAL CANDIDATE

AND

DR JOHN W. CADOGAN
LECTURER IN MARKETING

RESEARCH INSTITUTE
ASTON BUSINESS SCHOOL
ASTON TRIANGLE
ASTON UNIVERSITY
BIRMINGHAM B4 7BR
TEL: 0121 3593611 EXT 4902
E-MAIL: asmatnat@aston.ac.uk

1. *Below is a list of statements other managers have made about marketing and sales issues relating to EXPORT MARKETING operations within their companies. Please use the following scale to indicate the extent to which the statements below describe the situation in your company (place the appropriate number in the box provided).*

Very Strongly Disagree			Neither Agree nor Disagree			Very Strongly Agree
1	2	3	4	5	6	7

In our EXPORT operations ...

we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our export markets ....

we constantly monitor our level of commitment and orientation to serving export customer needs.........

we are slow to detect fundamental shifts in our export environment (e.g., export regulation, technology, economy)...

we periodically review the likely effect of changes in our export environment (e.g., regulation, technology)...

we generate a lot of information in order to understand the forces which influence our overseas customers' needs and preferences.................................

we do not generate enough reliable/relevant information concerning our competitors' activities in our export markets..

if a major competitor were to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately...............................

we respond quickly to significant changes in our competitors' price structures in foreign markets ....

we rapidly respond to competitive actions that threaten us in our export markets.............................

we are quick to respond to important changes in our export business environment (e.g., regulation, technology, economy)...

our export strategy for competitive advantage is based on our understanding of export customer needs...

too much information concerning our export competitors is discarded before it reaches decision makers..

information which can influence the way we serve our export customers takes forever to reach export personnel..

important information about our export customers is often 'lost in the system'......................................

information about our export competitors' activities often reaches relevant personnel too late to be of any use..

important information concerning export market trends (regulation, technology) is often discarded as it makes its way along the communication chain...

top management regularly discuss export competitors' strengths and strategies...................................

employees in the export unit and those in other functional areas (e.g., R & D) help each other out.........

there is a strong collaborative working relationship between export and 'production'.........................

2. Below is a list of statements other managers have made about marketing and sales issues relating to *DOMESTIC (UK) MARKETING* operations within their companies. Please use the following scale to indicate the extent to which the statements below describe the situation in *your* company (place the appropriate number in the box provided).

Very Strongly Disagree			Neither Agree nor Disagree			Very Strongly Agree
1	2	3	4	5	6	7

In our UK market operations ...

we generate a lot of information concerning trends (e.g., regulation, technological developments, political, economy) in our UK markets.. ☐

we constantly monitor our level of commitment and orientation to serving our UK customer needs........ ☐

we are slow to detect fundamental shifts in our industry in the UK (e.g., regulation, technology, economy)... ☐

we periodically review the likely effect of changes in our industry (e.g., UK regulation, technology)... ☐

we generate a lot of information in order to understand the forces which influence our UK customers' needs and preferences.. ☐

we do not generate enough reliable/relevant information concerning our competitors' activities in our UK markets.. ☐

if a major competitor were to launch an intensive campaign targeted at our UK customers, we would implement a response immediately.. ☐

we respond quickly to significant changes in our competitors' price structures in our UK markets .... ☐

we rapidly respond to competitive actions that threaten us in our UK markets............................ ☐

we are quick to respond to important changes in our UK business environment (e.g., regulation, technology, economy)... ☐

our strategy for competitive advantage in the UK is based on our understanding of customer needs........ ☐

too much information concerning competitors in our UK markets is discarded before it reaches decision makers .... ☐

information which can influence the way we serve our UK customers takes forever to reach relevant personnel .... ☐

important information about our UK customers is often 'lost in the system'................................ ☐

information about our competitors' activities in the UK market often reaches relevant personnel too late to be of any use .... ☐

important information concerning market trends (regulation, technology) is often discarded as it makes its way along the communication chain .... ☐

top management regularly discuss our UK competitors' strengths and strategies............................... ☐

Please read the following four statements concerning types of business operations.

Type 1

This type of business unit attempts to locate and maintain a secure niche in a relatively stable product or service area. The business unit tends to offer a more limited range of products or services than its competitors, and it tries to protect its domain by offering higher quality, superior service, lower prices, and so forth. Often this business unit is not at the forefront of developments in the industry – it tends to ignore industry changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited area.

Type 2

This type of business unit typically operates within a broad product-market domain that undergoes periodic redefinition. The business unit values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. This organisation responds rapidly to early signals concerning areas of opportunity, and these responses often lead to a new round of competitive actions. However, this business unit may not maintain market strength in all of the areas it enters.

Type 3

This type of business unit attempts to maintain a stable, limited line of products or services while at the same time moving quickly to follow a carefully selected set of the more promising new developments in the industry. This organisation is seldom "first in" with new products and services. However, by carefully monitoring the actions of major competitors in areas compatible with its stable product-market base, this business unit can frequently be "second in" with a more cost-efficient product or service.

Type 4

This type of business unit does not appear to have a consistent product-market orientation. This organisation is usually not as aggressive in maintaining established products and markets as some of its competitors, nor is it willing to take as many risks as other competitors. Rather, this type of business unit responds in those areas where it is forced to by environmental pressures.

1. Which of these statements do you think *best represent* your EXPORT operations?
    (Please tick only one option).

    Our EXPORT business type is closest to .....

    Type 1 ☐   Type 2 ☐   Type 3 ☐   Type 4 ☐

2. Which of these statements do you think *best represent* your UK operations?
    (Please tick only one option).

    Our UK business type is closest to .....

    Type 1 ☐   Type 2 ☐   Type 3 ☐   Type 4 ☐

SECTION 3: EXPORT AND DOMESTIC MARKETING OPERATIONS

1. Please compare your UK and Export marketing operations on the following activities (circle the appropriate number):

	Export Marketing Superior					UK Marketing Superior
Generating information on market trends........................	1	2	3	4	5	6
Monitoring customer satisfaction....................................	1	2	3	4	5	6
Detecting fundamental environmental shifts.......................	1	2	3	4	5	6
Rapidly communicating important information..................	1	2	3	4	5	6
Disseminating information to all levels in the business...........	1	2	3	4	5	6
Communicating between employees................................	1	2	3	4	5	6
Discussing customers' needs with other units.....................	1	2	3	4	5	6
Updating the business on important market changes............	1	2	3	4	5	6
Speed of market response..	1	2	3	4	5	6
Competitive response activities.......................................	1	2	3	4	5	6
Overcoming competitive threats......................................	1	2	3	4	5	6

2. Over the last 3 months the Export Marketing function and other (non-export focused) functions personnel have ...

	Very Strongly Disagree			Neither Agree nor Disagree			Very Strongly Agree
experienced problems coordinating work activities..................	1	2	3	4	5	6	7
had compatible goals and objectives.............................	1	2	3	4	5	6	7
agreed on the priorities of each department.....................	1	2	3	4	5	6	7
had senior managers who were "at odds"..........................	1	2	3	4	5	6	7
hindered each other's performance................................	1	2	3	4	5	6	7
competed for the same resources	1	2	3	4	5	6	7
cooperated with each other	1	2	3	4	5	6	7

3. For this firm to achieve its goals and responsibilities in its <u>export markets</u>, how much does it rely on other (non-export focused) departments' ...

	Not at All			Moderately			To an Extreme Extent
Resources (e.g., personnel, equipment, information)	1	2	3	4	5	6	7
Supports (e.g., advice or technical assistance)........................	1	2	3	4	5	6	7
Outputs (e.g., new product designs).....................................	1	2	3	4	5	6	7

4. During the past 3 months, did the firm's Export function and the firm's other business functions (e.g., manufacturing, marketing/sales, etc) have:

	Not at All			Moderately			To an Extreme Extent
Achieved collective goals	1	2	3	4	5	6	7
Shared the same vision for the company.	1	2	3	4	5	6	7
Had a mutual understanding	1	2	3	4	5	6	7
Worked together as a team..	1	2	3	4	5	6	7
Shared information	1	2	3	4	5	6	7
Shared resources.	1	2	3	4	5	6	7
Had formal meetings...	1	2	3	4	5	6	7
Circulated memorandums.	1	2	3	4	5	6	7
Circulated reports...	1	2	3	4	5	6	7
Circulated forms	1	2	3	4	5	6	7

5. Please use the following scale to indicate the extent to which the statements below describe the situation in your company (place the appropriate number in the box provided).

Not at all   To an extreme extent

| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 |

Please consider the interaction between and within functional areas/departments in your firm.

in this company, there is a sense of teamwork going right down to the 'shop floor'………………...……….. ☐

functional areas in this company pull together in the same direction………………………………………… ☐

the activities of our business functions (e.g., exports, marketing/sales, manufacturing, R&D, finance/accounting, etc.) are integrated in pursuing a common goal …………………………………. ☐

we resolve issues and conflicts through communication and group problem-solving…………...…………….. ☐

people from different functional areas in our company discuss their problems openly and constructively... ☐

EXPORT MARKETING DECISIONS

In the following, please distribute 100 points per column to indicate the relative influence of departments on various export marketing decisions. Use a larger number to indicate a greater relative influence of a functional area on a decision. If a function does not exist (e.g., your firm has no R&D function), then simply allocate the 100 points between the remaining functions.

	DECISION 1 Export Pricing Decisions	DECISION 2 New Product Development for Export Markets	DECISION 3 Export Customer Satisfaction Improvement	DECISION 4 Export Customer Service and Support
Export Function	☐	☐	☐	☐
Marketing/Sales	☐	☐	☐	☐
Finance/Accounting	☐	☐	☐	☐
Manufacturing	☐	☐	☐	☐
R&D	☐	☐	☐	☐
TOTAL	100	100	100	100

	DECISION 5 Export Customer Satisfaction Measurement	DECISION 6 Export Distribution Strategy	DECISION 7 Expansion into New Export Markets	DECISION 8 Export Market Advertising
Export Function	☐	☐	☐	☐
Marketing/Sales	☐	☐	☐	☐
Finance/Accounting	☐	☐	☐	☐
Manufacturing	☐	☐	☐	☐
R&D	☐	☐	☐	☐
TOTAL	100	100	100	100

UK MARKETING DECISIONS

1. *This time, please allocate 100 points per column to indicate the relative influence of different functional areas on various UK marketing decisions. Again larger numbers signify greater influence.*

Over the last 12 months how influential are the following departments in terms of:

	DECISION 1 UK Pricing Decisions	DECISION 2 New Product Development for UK Markets	DECISION 3 UK Customer Satisfaction Improvement	DECISION 4 UK Customer Service & Support
Export Function				
Marketing/Sales				
Finance/Accounting				
Manufacturing				
R&D				
TOTAL	100	100	100	100

	DECISION 5 UK Customer Satisfaction Measurement	DECISION 6 Distribution Strategy in UK	DECISION 7 Expansion into New UK Markets	DECISION 8 UK Advertising
Export Function				
Marketing/Sales				
Finance/Accounting				
Manufacturing				
R&D				
TOTAL	100	100	100	100

2. *For this firm to achieve its goals and responsibilities in its <u>UK markets</u>, how much does it rely on Export Marketing's ...*

	Not at All			Moderately			To an Extreme Extent
Resources (e.g., personnel, equipment, information)	1	2	3	4	5	6	7
Supports (e.g., advice or technical assistance)	1	2	3	4	5	6	7
Outputs (e.g., new product designs)	1	2	3	4	5	6	7

Please use the scale below to indicate the extent to which you agree with each statement (place the appropriate number in the box provided).

Not at all   **To an extreme extent**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

EXPORT BUSINESS ENVIRONMENT

In our EXPORT markets ...

our export customers' product preferences change quite a bit over time .... ☐

new export customers tend to have product-related needs that are different from those of our existing export customers... ☐

our export customers tend to look for new products all the time.. ☐

in our export markets, there are many 'promotion wars'... ☐

one hears of a new competitive move in our export markets almost every day .... ☐

in our foreign markets, aggressive selling is the norm.. ☐

Regarding the impact of technology on your EXPORT business:

The technology in our industry is changing rapidly .... ☐

Technological changes provide big opportunities in our industry.. ☐

A large number of new product ideas have been made possible through technological breakthroughs in our industry... ☐

UK BUSINESS ENVIRONMENT

In our UK markets ...

our customers' product preferences change quite a bit over time .... ☐

new customers tend to have product-related needs that are different from those of our existing customers... .... ☐

our customers in the UK tend to look for new products all the time .... ☐

in our UK markets, there are many 'promotion wars'... ☐

one hears of a new competitive move almost every day in our UK markets .... ☐

aggressive selling is the norm in this country... ☐

Regarding the impact of technology on your UK business operations:

The technology in our industry is changing rapidly .... ☐

Technological changes provide big opportunities in our industry.. ☐

A large number of new product ideas have been made possible through technological breakthroughs in our industry... ☐

Please circle the numbers which best indicate the extent to which you agree on the following questions:

Relative to our customers in our UK market(s), Export customers have...

Greater Predictability	1	2	3	4	5	6	7	Less Predictability
Greater Price Sensitivity	1	2	3	4	5	6	7	Less Price Sensitivity
Similar Buying Patterns	1	2	3	4	5	6	7	Different Buying Patterns
More Stable Product Preferences	1	2	3	4	5	6	7	Less Stable Product Preferences

Relative to competitors in our UK market(s), Export competitors ...

Are Stronger	1	2	3	4	5	6	7	Are Weaker
Use Price Competition More	1	2	3	4	5	6	7	Use Price Competition Less
Use More Promotional Wars	1	2	3	4	5	6	7	Use Less Promotional Wars
Are More Threatening	1	2	3	4	5	6	7	Are Less Threatening

Relative to technology in our UK market(s), technological developments in our Export market(s) ...

Are More Radical	1	2	3	4	5	6	7	Are Less Radical
Are Major	1	2	3	4	5	6	7	Are Minor
Obsolete Quicker	1	2	3	4	5	6	7	Obsolete Slower
Provide More New Products	1	2	3	4	5	6	7	Provide Fewer New Products

---

SECTION 5: ABOUT YOUR COMPANY

1. *How long has your company been in business?* ☐ *years*

2. *How long has your company been exporting?* ☐ *years*

3. *Does your company have a separate formal export department? (Please tick)* Yes ☐ No ☐

4. a) *Approximately how many full-time employees does your company currently have?*
       (only consider those on your UK payroll) _____

    b) *Of these employees, how many are DIRECTLY involved with export matters?* _____

5. *Approximately what percentage of total sales turnover is derived from exports?* _____ %

6. *Approximately, to how many countries does your company export?* _____ *number of countries.*

7. *Which of the following regions do you currently export to? (Please tick all the relevant boxes).*

    EU Countries ☐   Eastern Europe ☐   South/Central America ☐

    North America ☐   Middle East ☐   Australia/New Zealand ☐

    Asia ☐   Africa ☐   Others: _____

8. *What are the main product groups produced by your firm? (Please tick the relevant box).*

    Consumer Goods ☐   Industrial Goods ☐

    Consumer Services ☐   Industrial Services ☐

COMPANY'S PERFORMANCE IN ITS EXPORT MARKETS

(Remember: your responses are confidential)

1. *Relative to our major competitors in our key export markets, our export sales revenue is probably:*

   Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

2. *Relative to our major competitors in our key export markets, our operating costs are probably:*

   Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

3. *In our key export markets the likelihood of a new competitor being able to earn satisfactory profits within 3 years after entry is:*

   Extremely Low | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely High

4. *How successful are your export customers in negotiating lower prices from you?*

   Not At All | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely Successful

5. *Approximately, over the past 3 years, what has been the average annual growth/decline rate of your EXPORT SALES? (Please enter a percentage figure in the relevant box).*

   % GROWTH [   ]   *OR*   **% DECLINE** [   ]

6. *How does your average annual EXPORT SALES growth/decline compare to the industry average?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

7. *Overall, how satisfied are you with your performance over the past 3 years? (Please circle the appropriate numbers).*

   Export Sales Volume   very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied
   Export Market Share   very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied
   Export Sales Growth   very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied
   Export Profitability   very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied
   Export Market Entry   very dissatisfied 1 2 3 4 5 6 7 8 9 10 very satisfied

8. *Overall, how PROFITABLE has EXPORTING been over the past 3 years?*

   1999-2000   very unprofitable 1 2 3 4 5 6 7 8 9 10 very profitable
   2000-2001   very unprofitable 1 2 3 4 5 6 7 8 9 10 very profitable
   2001-2002   very unprofitable 1 2 3 4 5 6 7 8 9 10 very profitable

9. *Overall, how would you rate your company's EXPORT PERFORMANCE over the past 3 years?*

   Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

COMPANY'S PERFORMANCE IN ITS UK MARKETS

1. *Relative to our largest competitors in our key UK markets, our UK sales revenue is probably:*

    Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

2. *Relative to our major competitors in our key UK markets, our operating costs are probably:*

    Very Small | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Large

3. *In our key UK markets, the likelihood of a new competitor being able to earn satisfactory profits within 3 years after entry is:*

    Extremely Low | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely High

4. *How successful are your customers in your key UK markets in negotiating lower prices from you?*

    Not At All | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely Successful

5. *Approximately, over the past 3 years, what has been the average annual growth/decline rate of your UK SALES? (Please enter a percentage figure in the relevant box).*

    % GROWTH [   ]   OR   % DECLINE [   ]

6. *How does your average annual UK SALES growth/decline compare to the industry average?*

    Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

7. *Overall, how satisfied are you with your performance in your key UK markets over the past 3 years? (Please circle the appropriate number).*

UK Sales Volume	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
UK Market Share	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
UK Sales Growth	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
UK Profitability	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
New Market Entry	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied

8. *Overall, how PROFITABLE have your UK business operations been over the past 3 years?*

1999-2000	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2000-2001	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2001-2002	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable

9. *Overall, how would you rate your company's PERFORMANCE in your UK MARKET over the past 3 years?*

    Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

OVERALL COMPANY'S PERFORMANCE (COMBINED DOMESTIC AND EXPORTS)

1. *Approximately, what is your company's annual TOTAL sales turnover? £_____ million.*

2. *Approximately, over the past 3 years, what has been the average annual growth/decline rate of your FIRM'S TOTAL sales? (Please enter a percentage figure in the relevant box).*

    % GROWTH [   ]   *OR*   *% DECLINE* [   ]

3. *How does your company's average annual total sales growth/decline compare to the industry average?*

    Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

4. *Overall, how satisfied is your company with its OVERALL PERFORMANCE (combined Domestic and Export) over the past 3 years?*

Sales Volume	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
Market Share	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
Sales Growth	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
Profitability	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied
Market Entry	very dissatisfied 1 2 3 4 5 6 7 8 9 10	very satisfied

5. *Overall, how PROFITABLE has your company been over the past 3 years?*

1999-2000	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2000-2001	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable
2001-2002	very unprofitable 1 2 3 4 5 6 7 8 9 10	very profitable

6. *Overall, how would you rate your company's OVERALL PERFORMANCE (combined Domestic and Export) over the past 3 years?*

    Poor | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Outstanding

7. *Who makes the most positive contribution to your company's overall performance?*

	Domestic is Major Contributor			About the Same			Export is Major Contributor	
Profit Objectives	1	2	3	4	5	6	7	8	9
Growth Objectives	1	2	3	4	5	6	7	8	9
Sales Objectives	1	2	3	4	5	6	7	8	9
Market Share Objectives	1	2	3	4	5	6	7	8	9
New Market Entry Objectives	1	2	3	4	5	6	7	8	9
New Product Success Objectives	1	2	3	4	5	6	7	8	9

8. *Please state your position or title in the company:_____*

Thank You For Your Time And Participation
Your Contribution To This Study Is Greatly Appreciated

If you would like to receive a summary report of the findings of this study, please provide an e-mail address for contact.

APPENDIX 4-5

REMINDER POSTCARD

I would very much appreciate your help to fill out my questionnaire on the **Business Practices of British Exporters**. I hope that you received it last week. If you have already returned it to me, thank you once more. If you have not yet had the chance to complete the questionnaire (and I am well aware that this does place a strain on your busy schedule), I would like to take this opportunity to tell you that I still need your response, since your opinions will make an important contribution to the quality of both this study and my PhD degree. I confirm that all replies are strictly confidential. If you did not receive a copy of the questionnaire, or have any questions about this study, please do not hesitate to contact me or my supervisor (contact details below). Thank you, your support is greatly appreciated.

Yours sincerely

Asmat Nizam

Research Institute, Aston Business School, Aston University, Birmingham B4 7BR.
Asmat Nizam: asmatnat@aston.ac.uk; Tel: 0121 3593611 ext: 4902.
Supervisor: Dr. J. Cadogan ext: 5035

COVER LETTER FOR THE MAIN SURVEY

Date: _____
Email: asmatnat@aston.ac.uk
Tel: + 44(0) 121-359-3611 *ext.* 4902

<div align="right">University logo
and address</div>

Name and address of respondent

Dear _____,

I would very much appreciate your help with a study I am currently undertaking into the Business Practices of British Exporters. The study is concerned with marketing management and firm's practices in today's competitive environment. The findings of the study will both help identify the successful practices and major problems associated with implementing market orientation in UK and overseas markets and suggest areas for improvement.

As your answers are critical for the accuracy or our research, I would be extremely grateful if you could find the time to fill the attached questionnaire. I am aware that this represents a demand on your already busy schedule, but your participation really could make the difference between success and failure of both this study and my Phd degree!

The information you provide will be used for the purpose of my thesis and anticipated marketing publications. However, your answers will stay confidential, and at no time will you or your firm be identified in the analysis. The questionnaire will take approximately 25 minutes for you to complete. I would be grateful if you could return it in the enclosed *post-paid* return envelope at your earliest convenience.

Because of the wide scope of companies involved in this study (large and small, product and service marketing) some of the questions may seem not applicable to your organisation. However, rather than not answering those particular questions, please adapt their interpretation to suit your organisation. For example, if you are not a large enough company to have an export marketing 'department', answer those questions in terms of the individual(s) whose function export marketing is, or, if you are a service organisation, translate 'manufacturing' into the terminology of your industry.

I would be more than happy to discuss any questions you may have and can be contacted at the address above. Alternatively, you could contact my supervisor Dr. John Cadogan on ext: 5035. Once again, thank you very much in advanced for your co-operation. Your support is greatly appreciated.

Yours sincerely

Asmat Nizam

CORRELATIONS BETWEEN DIFFERENCES IN MARKET-ORIENTED BEHAVIOUR LEVELS ACROSS FIRMS' DOMESTIC AND EXPORT OPERATIONS

Correlations between Differences in Market-Oriented Behaviour Levels Across Firms' Domestic and Export Operations

Item No.	1.	2.	3.	4.	5.	6.	7.
1. Modiff1							
2. Modiff 2	.349						
3. Modiff 3	.494	.370					
4. Modiff 4	.349	.246	.410				
5. Modiff 6	.121	.150	.187	.289			
6. Modiff 8	.410	.291	.474	.394	.345		
7. Modiff 9	.371	.301	.536	.344	.183	.515	
8. Modiff 11	.311	.348	.397	.137	.221	.319	.480

CORRELATIONS BETWEEN DIFFERENCIES IN DOMESTIC AND EXPORT MARKET ENVIRONMENTSS

Correlations between Differences in Domestic and lExport Market Environments

Item No	1	2
1. ENVDiff 1		
2. ENVDiff 2	.235	
3. ENVDiff 3	.241	.132