

DOCTOR OF PHILOSOPHY

Organisational receptivity for change

Azni Taha

2014

Aston University

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**ORGANISATIONAL RECEPTIVITY  
FOR CHANGE: COMBINING  
CONTEXT AND CAPABILITY TO  
EXPLAIN COMPETITIVE  
ADVANTAGE**

AZNI ZARINA TAHA

Doctor of Philosophy

ASTON UNIVERSITY

NOVEMBER 2013

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# DEDICATION

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*This PhD thesis is dedicated to:*

My soulmate – Mozard Mohtar

My beloved little angels – Adrieana Mozard and  
Zafier Mozard

My parents – Taha Ismail and Saadiah Saidun

My grandparents – Saidun Noh, Jamaliah  
Noordin and Tasah Razak

# Table of Contents

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Tables.....	viii
Figures .....	xi
Acknowledgement.....	xii
Abstract.....	xiv
Chapter 1.....	1
Introduction.....	1
1.1 Introduction.....	1
1.2 Research Context.....	3
1.3 Justification / Importance of the Research.....	4
1.3.1 Theoretical Contributions .....	4
1.3.2 Methodological Contributions .....	7
1.3.3 Practical Contributions .....	8
1.4 Research Objectives .....	8
1.5 Outline of the Thesis .....	9
Chapter 2.....	11
Literature Review .....	11
2.1 Introduction .....	11
2.2 Perspectives in Organisational Change.....	12
2.3 Review of Institutional Theory.....	16
2.3.1 Limitations Of Institutional Theory .....	19
2.4 Review of the Resource-Based (Rbv) Theory.....	21
2.4.1 Limitations Of rbv Theory.....	24
2.4.2 Dynamic Capabilities .....	25
2.4.3 RBV Theory and Dynamic Capabilities Concept in Explaining Competitive ..	27
2.5 Combining Institutional Theory with Rbv Theory .....	28
2.6 Organisational Receptivity for Change (ORC).....	34
2.6.1 Development of ORC Theory.....	35
2.6.2 Receptivity Context – Definitions And Dimensions.....	38
2.6.2.1 Pettigrew <i>et al.</i> 's (1992) ORC Framework .....	39
2.6.2.2 Butler and Allen's (2008) ORC Framework.....	43
2.6.3 Issues in the Theory of ORC .....	48
2.6.4 ORC Theory – Moving from the Outside-In Perspective to the Inside-Out Perspective .....	49
2.7 Conceptual Framework .....	51

2.7.1 External Environment and Receptivity Factors .....	53
2.7.2 Receptivity Factors and Competitive Advantage .....	55
2.7.3 Receptivity, Competitive Advantage, and Organisational Performance.....	56
2.8 Conclusion.....	58
Chapter 3.....	59
Research Design.....	59
3.1 Introduction .....	59
3.2 Philosophical Stance .....	59
3.3 Philosophical Views in Organisational Change Theories .....	60
3.4 Philosophical and Methodological Justifications .....	62
3.5 Scale Development Research Design .....	63
3.6 Research Design .....	64
3.7 Phase 1 – Item Generation .....	66
3.7.1 Step 1 – Literature Review .....	66
3.7.2 Step 2 – Semi-Structured Interviews.....	68
3.7.2.1 Data Collection Strategy.....	68
3.7.2.2 Analysis Strategy – Content Analysis .....	69
3.7.2.3 Item Pool Generation Outcome.....	70
3.7.3 Step 3 – Expert Judge: Content Adequacy and Face Validity.....	71
3.7.3.1 Expert Judge Research Design.....	72
3.8 Phase 2 – Scale Development – Survey.....	75
3.8.1 Step 1 – Scale Construction.....	76
3.8.2 Step 2 – Scale Development.....	77
3.8.2.1 Data Collection Strategy.....	78
3.8.2.2 Analysis Strategy.....	78
3.8.2.2.1 Preliminary Analysis.....	78
3.8.2.2.2 Exploratory Factor Analysis.....	80
3.8.3 Step 3 – Scale Evaluations.....	83
3.8.3.1 Common Method Bias.....	83
3.8.3.2 Reliability.....	84
3.8.3.3 Item Reduction and Scale Refinement .....	84
3.8.3.4 Convergent Validity .....	85
3.8.3.5 Discriminant Validity .....	85
3.8.3.6 Factor Structure .....	86
3.8.3.7 2 <sup>nd</sup> Higher-Order Construct.....	88
3.8.3.8 Nomological Validity .....	88
3.8.3.9 Test of Mediation .....	89

3.9 Phase 3 – Scale Evaluation – Survey .....	90
3.9.1 Data Collection Strategy.....	91
3.9.2 Analysis Strategy .....	91
3.10 Conclusion.....	92
CHAPTER 4 .....	93
Phase 1 – Item Generation .....	93
4.1 Introduction .....	93
4.2 Part 1 – Synthesis of Literature .....	93
4.2.1 List of Semi Structured Questions for Interviews.....	96
4.3 Part 2 – Semi-Structured Interviews .....	97
4.3.1 Demographic Profile of the Respondents.....	97
4.3.2 Coding Schemes.....	97
4.3.3 Inter-Coder Reliability .....	98
4.3.4 Results – Exploring Receptivity Factors .....	99
4.3.4.1 RF1: Ideological Vision.....	99
4.3.4.1.1 Coherence and Quality of Vision .....	99
4.3.4.1.2 Identification with Culture .....	100
4.3.4.2 RF2: Leading Change.....	101
4.3.4.2.1 Location of Decision Making.....	102
4.3.4.2.2 Who Implements Change .....	104
4.3.4.2.3 Change Leader’s Action.....	104
4.3.4.2.4 Leading Change Continuity .....	105
4.3.4.3 RF3: Institutional Politics .....	106
4.3.4.3.1 Type of Network Used .....	107
4.3.4.3.2 Powers Relations.....	108
4.3.4.3.3 Support from Other Networks .....	109
4.3.4.3.4 Political Skills.....	109
4.3.4.4 RF4: Implementation Capacity .....	110
4.3.4.4.1 Mechanism Used by Leading Change .....	110
4.3.4.4.2 Speed of Implementation .....	111
4.3.4.4.3 Behaviours of Stakeholders .....	111
4.3.4.4.4 Strategies for Managing Change.....	111
4.3.4.5 RF5: Possibility Space.....	112
4.3.4.5.1 No Universal Best Practice .....	112
4.3.4.5.2 Path Dependency .....	113
4.3.4.5.3 Choice.....	113
4.3.4.5.4 Organisational Play .....	115

4.3.4.6 Other Receptivity Items.....	115
4.3.5 Item Generation Based On Findings.....	116
4.4 Part 3 – Expert Judge – Content Adequacy and Face Validity.....	117
4.4.1 Expert Judge Stage 1 – Review by the Author of the Theory of Receptivity to Change.....	118
4.4.2 Expert Judge Stage 2 – Review by Transformation Project Members.....	119
4.4.3 Stage 3 – Questionnaire.....	121
4.4.3.1 Inter-Coder Reliability.....	122
4.4.4 Analysis of Item Reduction.....	122
4.5 Final List Of Measures for Each of the Receptivity Factors.....	123
4.6 Conclusion.....	126
Chapter 5.....	127
Phase 2: Scale Development.....	127
5.1 Introduction.....	127
5.2 Step 1 – Scale Construction.....	128
5.3 Preliminary Data Analysis.....	128
5.3.1 Missing Value Analysis (MVA).....	128
5.3.2 Deletion and Imputation of MCAR Data and Outliers.....	129
5.3.3 Descriptive Statistics, Univariate and Multivariate Normality.....	129
5.3.4 Comparability and Division of the Sample.....	130
5.4 Step 2 – Scale Construction (1 <sup>st</sup> Sample).....	130
5.4.1 RF1: Ideological Vision.....	131
5.4.2 RF2: Leading Change.....	131
5.4.3 RF3: Institutional Politics.....	132
5.4.4 RF4: Implementation Capacity.....	132
5.4.5 RF5: Possibility Space.....	132
5.4.6 Conclusion from Principal Component Analysis (PCA) Results.....	133
5.5 STEP 3 – Scale Evaluations (2 <sup>nd</sup> Sample).....	135
5.5.1 Preliminary Analysis.....	135
5.5.2 Reliability Assessment.....	136
5.5.3 Scale Refinement – Confirmatory Factor Analysis (CFA).....	136
5.5.4 Convergent Validity.....	141
5.5.5 Discriminant Validity.....	143
5.6 Exploratory Factor Analysis (EFA).....	145
5.7 Confirmatory Factor Analysis – Change Orientation.....	145
5.8 Re-test of Convergent and Discriminant Validities.....	146
5.8.1 Reliability and Convergent Validities.....	146

5.8.2 Discriminant Validity .....	148
5.9 ORC as a 1 <sup>st</sup> Order Four-Factor Structure.....	149
5.10 ORC as a 2 <sup>nd</sup> Higher-Order Construct .....	151
5.11 Nomological Validity.....	157
5.11.1 Choice of Scale .....	157
5.11.2 Antecedents and Outcome Construct Evaluations .....	159
5.11.3 Convergent Validity Test.....	162
5.11.4 Discriminant Validity Test .....	164
5.11.5 Re-Analysis of Convergent and Discriminant Validities .....	165
5.11.5.1 Convergent Validity .....	165
5.11.5.2 Discriminant Validity .....	167
5.12 Structural Equation Modeling (SEM).....	168
5.13 Test of Mediation.....	172
5.14 Conclusion.....	175
Chapter 6.....	176
Phase 3: Scale Evaluations and Hypothesis Testing .....	176
6.1 Introduction .....	176
6.2 Conceptual Framework for Scale Evaluations .....	177
6.3 Choice of Scale.....	177
6.4 Preliminary Data Analysis .....	179
6.4.1 Descriptive Statistics .....	181
6.1.1 Missing Value Analysis.....	182
6.1.2 Concern of Sample Size For SEM .....	183
6.1.3 Outliers and Univariate and Multivariate Normality .....	183
6.5 Step 1 – Scale Evaluations .....	184
6.5.1 Exploratory Factor Analysis of Antecedents, Mediators and Outcomes .....	184
6.5.2. Perceived Environmental Hostility .....	185
6.5.3 Organisational Receptivity Towards Change .....	185
6.5.4 Competitive Advantage .....	188
6.5.5 Organisational Performance .....	189
6.6 Step 2 – Scale Evaluations .....	189
6.6.1 Convergent Validity Test .....	189
6.6.2 Discriminant Validity Test .....	191
6.7 Step 3 – Hypotheses Testing .....	193
6.7.1 Model Evaluations .....	193
6.7.2 Hypothesis Testing.....	196
6.7.3 Test for Mediation.....	202

6.7.4 Control Variables .....	206
6.8 Conclusion.....	209
Chapter 7.....	210
Discussion and Findings .....	210
7.1 Introduction .....	210
7.2 Review of the Scale Development Process.....	211
7.2 Exploring the Receptivity Factors .....	214
7.2.1 Ideological Vision (RF1).....	214
7.2.2 Leading Change (RF2) .....	217
7.2.3 Institutional Politics (RF3) .....	220
7.2.4 Implementation Capacity (RF4) .....	223
7.2.5 Possibility Space (RF5).....	225
7.2.6 Change Orientation .....	228
7.2.7 ORC as a Second Higher-Order Construct.....	229
7.2.8 Comparison between the ORC Scale and Organisational Capacity for Change (OCC) Scale .....	230
7.3 Hypotheses Testing.....	232
7.4 Orc – Combining Institutional Theory and the Resource-Based Theory to Explain Competitive Advantage .....	235
7.5 Conclusion.....	237
Chapter 8.....	238
Conclusion .....	238
8.1 Introduction .....	238
8.2 Contributions .....	238
8.2.1 Theoretical Contribution .....	238
8.2.1.1 ORC Theory - Combining Institutional Theory and RBV Theory .....	238
8.2.1.2 Development of a Psychometrically Sound ORC Scale.....	243
8.2.1.3 Application of the ORC Theory to the Private Sector.....	246
8.2.2 Methodological Contribution.....	246
8.2.2.1 Quantitative Method.....	246
8.2.2.2 Validation of Hinkin’s (1995) Scale Development Process .....	247
8.2.3 Practical Contributions – Managerial Implications .....	248
8.3 Limitations and Future Research .....	250
8.4 Concluding Note.....	252
Reference .....	254
Appendix A .....	275
Appendix B .....	277

Appendix C ..... 288

# Tables

---

Table 2.1 Eight Factors Associated with “Receptivity to Change” .....	40
Table 2.2 Five Receptivity Factors in Butler (2003), and Butler and Allen (2008) ORC framework .....	44
Table 3.1 Criteria for Literature Review .....	67
Table 3.2 Mediation Testing .....	90
Table 4.1 Selection of Articles .....	94
Table 4.2 Semi-structured Questions for Interviews .....	96
Table 4.3 Receptivity sub-dimensions .....	98
Table 4.4 Cohen’s Kappa .....	98
Table 4.5 Content Analysis of Interviews .....	99
Table 4.6 Content Analysis of Interviews .....	102
Table 4.7 Content Analysis of Interviews .....	107
Table 4.8 Content Analysis of Interviews .....	110
Table 4.9 Content Analysis of Interviews .....	112
Table 4.10 Summary of Overlaps between Sub-dimensions .....	116
Table 4.11 Receptivity Items .....	117
Table 4.12 Changes for Receptivity Factors .....	119
Table 4.13 Receptivity Final Lists of Items .....	121
Table 4.14 Intra-Class Correlations .....	122
Table 4.15 Final items for ORC – Scale Development .....	123
Table 5.1 PCA Results for All Receptivity Factors .....	133
Table 5.2 Ideological Vision – Scale and Items Statistics .....	137
Table 5.3 Leading Change – Scale and Item Statistics .....	138
Table 5.4 Institutional Politics – Scale and Item Statistics .....	139
Table 5.5 Implementation Capacity – Scale and Item Statistics .....	140
Table 5.6 Possibility Space – Scale and Item Statistics .....	141
Table 5.7 Item Reliability and Convergent Validity .....	142
Table 5.8 Composite Reliability, Average Variance Extracted and Convergent Validity .....	143
Table 5.9 Discriminant Validity – AVE Analysis .....	144
Table 5.10 Discriminant Validity – Nested Model .....	145
Table 5.11 Change Orientation – Scale and Item Statistics .....	146
Table 5.12 Item Reliability and Convergent Validity .....	147
Table 5.13 Composite Reliability, Average Variance Extracted and Convergent Validity .....	148

Table 5.14 Discriminant Validity .....	148
Table 5.15 Discriminant Validity .....	149
Table 5.16 CFA result for Second-Order Conceptualization of Receptivity Framework	155
Table 5.17 CFA result using average scores for the Four Receptivity Factors in the ORC framework .....	156
Table 5.18 Summary of Receptivity factors Items .....	157
Table 5.19 Summary of Environmental Uncertainty Items .....	158
Table 5.20 Organisational Performance Measures .....	159
Table 5.21 Principal Axis Factoring of Perceived Dynamism, Perceived Complexity, and Market Performance .....	160
Table 5.22 Factor Loading .....	161
Table 5.23 Factor Loading for Environmental Complexity .....	162
Table 5.24 Factor Loading for Organisational Performance .....	162
Table 5.25 Confirmatory Factor Analysis of Perceived Environmental Complexity, Organisational Receptivity for Change and Competitive Performance .....	163
Table 5.26 Discriminant Validity - Average Variance Extracted and Shared Variance Estimates .....	165
Table 5.27 CFA for All Constructs in the Theoretical Framework .....	166
Table 5.28 Discriminant Validity - Average Variance Extracted and Shared Variance Estimates .....	167
Table 5.29 Discriminant Validity - $\chi^2$ Differences – Constraint Model vs Un-constraint Model .....	168
Table 5.30 Structural Model .....	170
Table 5.31 Results of the Hypothesis Testing .....	171
Table 5.32 Sobel Test .....	174
Table 5.33 Bias-Corrected Bootstrap Confidence Interval .....	175
Table 6.1 Proposed Hypotheses .....	177
Table 6.2 Summary of items for Perceived Environmental Hostility .....	178
Table 6.3 Summary of items for Receptivity Factors .....	178
Table 6.4 Summary of items in Competitive Advantage .....	179
Table 6.5 Organisational Performance Measures .....	180
Table 6.6 Descriptive Statistics for Key Informant Information .....	181
Table 6.7 Descriptive Statistics for Hotel Information .....	182
Table 6.8 Test of Multivariate Normality .....	183
Table 6.9 Factor Loading for all the Constructs .....	184
Table 6.10 Factor Loading for Perceived Environmental Hostility .....	185
Table 6.11 Factor Loading for Organisational Receptivity towards Change .....	186
Table 6.12 Factor Loading for Ideological Vision .....	187

Table 6.13 Factor Loading for Leading Change .....	187
Table 6.14 Factor Loading for Institutional Politics .....	187
Table 6.15 Factor Loading for Change Orientation .....	188
Table 6.16 Factor Loading for Competitive Advantage .....	188
Table 6.17 Factor Loading for Organisational Performance .....	189
Table 6.18 Factor Loading for Competitive Advantage .....	190
Table 6.19 Discriminant Validity AVE values .....	191
Table 6.20 Discriminant Validity – Nested Models.....	192
Table 6.21 Summary of Models.....	194
Table 6.22 Goodness of Fit Statistics for All Models .....	196
Table 6.23 Results of the Hypothesis Testing.....	200
Table 6.24 Sobel Test for ORC as a mediator between Perceived Environmental Hostility and Organisational Performance .....	204
Table 6.25 Sobel Test for ORC as a mediator between Perceived Environmental Hostility and Competitive Advantage.....	204
Table 6.26 Sobel Test for Competitive Advantage as a mediator between ORC and Organisation Performance.....	205
Table 6.27: Bias-Corrected Bootstrap Confidence Interval.....	206
Table 6.28: Results for Control Variable.....	207
Table 7.1 Final list of Items for Ideological Vision (RF1) .....	216
Table 7.2 Final list of Items for Leading Change .....	219
Table 7.3 Final list of Items for Institutional Politics (RF3).....	222
Table 7.4 Final list of Items for Implementation Capacity (RF4).....	224
Table 7.5 Final list of Items for Possibility Space (RF5) .....	227
Table 7.6 Final list of Items for Change Orientation.....	228
Table 8.1 List of Items and Contexts for Change Orientation .....	244

# Figures

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Figure 1 Homogeneity – Heterogeneity continuum .....	2
Figure 2.1 Conceptual Model of Institutional Theory and Institutional Forces.....	17
Figure 2.2 Barney’s (1991) Conceptual Model.....	23
Figure 2.3 Dynamic Capabilities Framework .....	26
Figure 2.4 Oliver’s (1997) Conceptual Framework .....	29
Figure 2.5 Conceptual Framework .....	53
Figure 3.1 Scale Development Research Design .....	63
Figure 3.2 This Study’s Research Design.....	65
Figure 3.3 Expert Judge Research Design .....	73
Figure 4.1 Phase 1 Research Design .....	93
Figure 5.1 Phase 2 Research Design .....	127
Figure 5.2 Standardized Solutions for Four-Factor Structure.....	150
Figure 5.3 T-values for Four-Factor Structures .....	151
Figure 5.4 Standardized Solutions for Four-Factor Structure.....	152
Figure 5.5 T-values for Four-Factor Structure.....	153
Figure 5.6 Standardized Solutions for Four-Factor Structure.....	154
Figure 5.7 T-values for Four-Factor Structure.....	154
Figure 5.8 Conceptual Framework .....	157
Figure 5.9 Structural Model – Standardised Solutions.....	169
Figure 5.10 Structural Equation Modeling – Standardised Solutions .....	173
Figure 6.1 Phase 3 Research Design .....	176
Figure 6.2 Conceptual Model.....	177
Figure 6.3 Structural Equation Model .....	199
Figure 6.4 Structural Equation Modeling .....	203
Figure 6.5 Structural Equation Modelling – Conceptual Framework with Control Variables .....	208
Figure 7 ORC – Combining institutional theory and RBV theory.....	236
Figure 8 Conceptual Framework.....	241

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# ABSTRACT

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This thesis explores efforts to conjoin organisational contexts and capabilities in explaining sustainable competitive advantage. Oliver (1997) argued organisations need to balance the need to conform to industry's requirements to attain legitimization (e.g. DiMaggio & Powell, 1983), and the need for resource optimization (e.g. Barney, 1991). The author hypothesized that such balance can be viewed as movements along the homogeneity-heterogeneity continuum. An organisation in a homogenous industry possesses similar characteristics as its competitors, as opposed to a heterogeneous industry in which organisations within are differentiated and competitively positioned (Oliver, 1997). The movement is influenced by the dynamic environmental conditions that an organisation is experiencing.

The author extended Oliver's (1997) propositions of combining RBV's focus on capabilities with institutional theory's focus on organisational context, as well as redefining organisational receptivity towards change (ORC) factors from Butler and Allen's (2008) findings. The authors contributed to the theoretical development of ORC theory to explain the attainment of sustainable competitive advantage. ORC adopts the assumptions from both institutional and RBV theories, where the receptivity factors include both organisational contexts and capabilities.

The thesis employed a mixed method approach in which sequential qualitative-quantitative studies were deployed to establish a robust, reliable, and valid ORC scale. The adoption of Hinkin's (1995) three-phase scale development process was updated, thus items generated from interviews and literature reviews went through numerous exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to achieve convergent, discriminant, and nomological validities. Samples in the first phase (semi structured interviews) were hotel owners and managers. In the second phase, samples were MBA students, and employees of private and public sectors. In the third phase, samples were hotel managers.

The final ORC scale is a parsimonious second higher-order latent construct. The first-order constructs comprises four latent receptivity factors which are *ideological vision* (4 items), *leading change* (4 items), *implementation capacity* (4 items), and *change orientation* (7 items). Hypotheses testing revealed that high levels of perceived environmental uncertainty leads to high levels of receptivity factor. Furthermore, the study found a strong positive correlation between receptivity factors and competitive advantage, and between receptivity factors and organisation performance. Mediation analyses revealed that receptivity factors partially mediate the relationship between perceived environmental uncertainty, competitive advantage and organisation performance.

**Keywords:** Organisational Receptivity for Change, Institutional Theory, Resource-based View Theory, Environment, Competitive Advantage, Organisational Performance, Scale Development.

# Chapter 1

## Introduction

---

### 1.1 INTRODUCTION

This thesis explores how the combination of organisational context and capabilities allows organisations to take advantage of external environmental changes and stay ahead of their competitors. Drawing on Oliver's (1997) proposition, combining institutional theory and RBV theory provides a more holistic explanation of sustainable competitive advantage. Thus, this study posits that organisational receptivity towards change (ORC) theory which combined both context and capabilities will explain competitive advantage better.

One main challenge for organisations is the selection of the best strategic response that allows organisations adapt to external environmental conditions. Strategic response is a balance between the need to achieve legitimacy in the industry, and the need to acquire and exploit unique resource/capabilities to attain competitive advantage (Oliver, 1997). However, there are instances when the two needs send the organisation in different directions, where the need for legitimacy forces organisations to be "similar" to other players in the industry (Scott, 2004), while the need for resource optimization pushes the organisations to be "different" than other players (Newbert, 2008). The first need leads to a homogeneous industry, whilst the second leads to a heterogeneous industry.

These two needs are explained by two distinct organisational theories – institutional theory (DiMaggio & Powell, 1983), and the resource based view (RBV) (Barney, 1991). Institutional theory explains how conforming to dominant practices as authoritative guidelines influence organisational behaviour (Scott, 2004; 1992), often resulting in a more homogeneous industry. On the other hand, RBV theory focuses on explaining the organisational necessity to adapt to environmental uncertainty through the acquisition and manipulation of resources and capabilities (Pfeffer & Salancik, 1978). This theory is focused on explaining heterogeneity in the industry.

The current study adopts Oliver's (1997) proposition that the two theories are complementary, and combining both theories provides a holistic explanation of sustainable competitive advantage. This study advances Oliver's (1991) idea further and

positions institutional theory and RBV as two ends of a homogeneous – heterogeneous continuum, as depicted in **Figure 1**. At one end is a homogenous industry, which is explained by institutional theory. At the other end is a heterogeneous industry, which can be explained by RBV theory. The study assumes organisations move along the continuum based on different environmental pressures that they face at a particular point in time.

**Figure 1 Homogeneity - Heterogeneity continuum**



Organisations often move along the continuum based on the current environmental pressures that are placed on them. External environment brings forth various types of pressures onto the organisations which are coercive, normative and mimetic (DiMaggio & Powell, 1983). When the environment is more stable, an organisation strives to move towards conformity, but when the environment is dynamic, the organisation is forced to change, adapt and use resources and capabilities to stay ahead of competitors (Newbert, 2008). To achieve sustainable competitive advantage, an organisation must develop the right institutional contexts that are receptive to change, which will enhance the ability to change based on the environmental pressure it faces.

In their seminal paper, Pettigrew *et al.*, (1992) developed ORC theory to address issues relating to organisation resistance to change. ORC theory explains the variability of change implementation by identifying eight institutional contexts, which are referred to as receptive or non-receptive contexts which either inhibit or expedite change (Pettigrew *et al.*, 1992).

The receptive and non-receptive factors determine the organisation’s ability to change (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992). The higher the receptivity to change, the more flexible the organisation is to adapt to the environmental pressures (Butler & Allen, 2008). Butler and Allen (2008) asserted that

the receptivity factors are dynamic capabilities an organisation draws upon to enhance its capacity to change and adapt. This assertion proposes the inclusion of RBV theory's assumptions into ORC theory.

This study proposes that ORC theory provides a conceptual framework that combine both organisational context and organisational capabilities to explain how organisations are able to change and adapt faster. It is also consistent with Oliver's (1997) proposition to combine organisation context and capabilities to explain sustainable competitive advantage. The current study extends this proposition by asserting that ORC theory provides a clear framework that combines various contexts and capabilities to explain competitive advantage. It draws from both institutional theory and RBV theory to explain two organisational phenomena: 1) which organisational context and capabilities allows organisations to move along the homogeneity-heterogeneity continuum, and 2) do these contexts and capabilities increase the organisation's competitive advantage and performance.

This study will integrate the receptivity factors in ORC framework into RBV framework used by Newbert (2008) To test how various organisational contexts and capabilities affect the competitive advantage and performance. By doing so, the study can identify the combination of capabilities and institutional factors needed for an organisation to achieve competitive advantage and superior performance. These capabilities and institutional factors are the receptivity factors.

Additionally, ORC provides an indicator if the industry is more prone towards homogeneity or heterogeneity. When the industry promotes higher levels of receptivity, organisations tend to be more heterogeneous. They are focused on higher levels of change and adaptability to attain competitive advantage. On the other hand, lower levels of receptivity indicate that the industry is stable, thus allowing organisations to move towards a homogeneous industry.

## **1.2 RESEARCH CONTEXT**

The global tourism industry has registered high growth, where the World Tourism Organisation (WTO) estimates that by 2020 the total number of tourists will reach 1.62 billion (Chin *et al.*, 2012). The rapid growth rate of the hospitality industry has made the business environment more turbulent, dynamic and uncertain (Ansoff, 1979; Ishak &

Ghazali, 2004). Hospitality researchers found that organisations are highly vulnerable to their environmental conditions (De Noble & Olsen, 1986; Harrington, 2001; Harrington & Kendall, 2005; Slattery & Olsen, 1984).

The level of environmental dynamism has forced hotels to increase capability to adapt (Ishak & Ghazali, 2004; Ishak *et al.*, 2002; Phillips, 1999). Jogaratnam and Tse (2004) argued that capitalizing on their ability to change is one of the deciding factors for organisations in obtaining sustainable competitive advantage. Managers need to generate an organisation's ability to deal with continuous change by generating new source of competitive advantage as well as countering competitors' source of advantage (Jogaratnam & Tse, 2004).

The selection of the hospitality industry is based on the industry's vulnerability to the external environment, where hotels need to have the right organisational context and capabilities to adapt to constant environmental pressures. The prevalence of these environmental conditions will allow this study to identify how hotels adapt and which receptivity factors play a role in a hotel's ability to change.

### **1.3 JUSTIFICATION / IMPORTANCE OF THE RESEARCH**

The contributions which this paper makes are divided into three: theoretical, methodological, and practical contributions. The next few sections will discuss each contribution separately.

#### **1.3.1 Theoretical Contributions**

The main theoretical contribution of this study is to address concerns highlighted by Delmas and Toffel (2008) where they claimed that the relationship between resource and institutional factors are not well understood. They asserted that institutional theory barely addresses issues relating to firm heterogeneity between organisations that shares the same institutional forces.

To address this issue, this study extends the proposition made by Oliver (1997) on the possibility of combining institutional theory and RBV theory to explain sustainable competitive advantage. This study will use ORC theory to combine various organisational contexts and organisational capabilities to explain how organisations are

able to adapt to highly dynamic environmental conditions and attain superior performance.

Oliver (1997) integrated institutional theory with RBV theory to provide a more holistic explanation of heterogeneity. She claimed that heterogeneity is the outcome of an organisation's efforts to gain sustainable competitive advantage, which is attained through the balancing act between institutional conformity and economic considerations. Organisations need to balance resource and institutional capital to create a sustainable competitive advantage. The key factors are the speed by which new capabilities are embedded and integrated into the organisation's existing knowledge base and the frequency with which capabilities are re-evaluated and realigned (Oliver, 1997).

The suggestions made by Oliver (1997) led to the use of ORC theory in this study. ORC theory explains how various receptivity factors affect the organisation's ability to adapt to environmental pressures. The receptivity factors are higher order capabilities which consist of both organisational context and capabilities which allow organisations to integrate new resources, and capabilities with existing knowledge base (Butler & Allen, 2008).

The same phenomenon above can be explained by several other organisational change theories (see Hatum & Pettigrew, 2004; Judge & Douglas, 2009; Judge *et al.*, 2009; Palanisamy & Sushil, 2003). One theory is organisational flexibility defined as "the capacity to respond to environmental change" (Palanisamy & Sushil, 2003; p. 84). However, the development of measures for this construct was not thorough and it was not based on a theoretical framework (Judge & Douglas, 2009). Another study on organisational flexibility was conducted by Hatum & Pettigrew (2004). However, the study used qualitative methods, and there was no discussion in regards to development of measures for any of the construct.

Another theory is organisational change capacity (OCC), which explains how several managerial and organisational capabilities allow certain organisations to adapt quickly and effectively to environmental pressures (Judge & Douglas, 2009). However, the development of OCC dimensions was not based on a theoretical framework. There are some similarities between the OCC dimensions and the receptivity factors in Pettigrew *et al.*'s (1992) and Butler & Allen's (2008) ORC framework. Nevertheless, ORC

framework encompasses more institutional factors compared to those in the OCC framework.

The theories above focuses more on organisational resources and capabilities, and do not capture the broader spectrum of organisational context. In contrast, ORC theory combines the two theories (institutional theory and RBV), where it conjoins organisational contexts and capabilities in one framework. It provides insight on how organisations are able to use various institutional contexts and capabilities to cope with environmental demands (Butler, 2003). In this study, the role of the receptivity factors is examined in helping organisations to balance between isomorphism and adaptation to two allow them to create sustainable competitive advantage (cf. Durand & Calori, 2006).

To combine the two theories (institutional and RBV), receptivity factors are posited to be mediating constructs in RBV framework. Literature on RBV theory has examined the role of organisational resources and capabilities in mediating the effects between the external environment, competitive advantage and organisational performance (see Henderson & Cockburn, 1994; Newbert, 2008; Westhead *et al.*, 2001). The current study adopts RBV framework presented by Newbert (2008). The inclusion of receptivity factors into RBV framework enables this study to extend ORC theory from institutional theory into RBV theory. Thus, a link is formed between these two theories.

The second theoretical contribution is the development of a scale to measure each of the receptivity factors in ORC frameworks by Pettigrew *et al.* (1992) and Butler & Allen (2008). Prior to including the receptivity factors into RBV framework, this study will develop measures for each factor. Such is the gap identified by Pettigrew *et al.*, (1992) who asserted a need to examine ORC in tandem with various receptivity factors and other organisational factors in future research. One limitation of ORC theory is the absence of a psychometric sound ORC scale to measure the receptivity factors (Newton *et al.*, 2003). Indeed, no known scale is currently available (see Butler & Allen, 2008). Literature on ORC has used qualitative methods, and rendered it contextual. As a result, the use of qualitative methods limits the ability of the theory to be generalized to a wider population (Newton *et al.*, 2003).

However, there is a scale that has similar theoretical underpinning as the receptivity factors – Organisational Change Capacity (OCC) scale. But, not all dimensions in the

OCC scale cover all receptivity factors. Therefore, there is a need to develop a scale to encompass all receptivity factors. The endeavour would require the study to undertake a scale development process in which each item that measures the receptivity factors must be relevant to the definition of the factor. Development of ORC scale will allow this study to address its first theoretical contribution. The scale will then be integrated into RBV framework.

The third theoretical contribution is the application of ORC theory to a new research context. The literature on ORC is predominantly conducted in the public sector setting, where a number of studies were analysed in the UK's National Health Service (NHS) (see Newton *et al.*, 2003; Pettigrew *et al.*, 1992, Plsek, 2003). Similarly, Butler (2003) and Butler and Allen (2008) focused their research on the public sector. On the other hand, this study extends the application of ORC theory to the private sector, namely the hospitality industry. This helps extend the application of ORC theory to a new context.

### **1.3.2 Methodological Contributions**

The methodological contribution is the use of quantitative research methods to analyse the role of the receptivity factors in explaining a firm's competitive advantage and performance. Previous literature on ORC theory used qualitative methods to identify the role of receptivity factors to increase the rate and pace of change in organisations.

Qualitative methods have led to some limitations with ORC theory. The first limitation is the generalizability of the theory. Qualitative samples are not representative of the total population (Burns & Bush, 2000). The second limitation of a qualitative study is it limits future research to test and validate the research findings and triangulate the research results (Straub & Carlson, 1989).

Newton *et al.* (2003) contended that future research focus on using quantitative methods to mitigate this limitation. Quantitative methods allow researchers test the applicability of ORC theory to a wider population, therefore enhancing the generalizability of the theory.

To address any limitations from qualitative research methods, this study will use quantitative methods to analyse the effects of receptivity factors on firm's competitive advantage and performance. The process of instrument development is crucial for the

development of theory (Bagozzi, 1980). Hinkin (1995) has outlined the process of instrument development in order to help researchers develop a more reliable and valid scale. ORC scale will enable the current study test the relationship of receptivity factors and other organisational constructs in RBV framework. Furthermore, ORC scale allows future researchers to adopt the measurement instrument in different settings and time (Straub & Carlson, 1989). Confirmatory and replication research add rigour to the development of theory while at the same time increase the robustness of the theory (Hunter *et al.*, 1983). Furthermore, the collection of empirical literature on this theory will allow future research to triangulate the results through meta-analysis (Cook & Cambell, 1979).

### **1.3.3 Practical Contributions**

Newton *et al.* (2003) asserted that ORC framework “identifies a range of discrete facets of organisational change situations and enables analysis to typify individual cases (or contexts) against an ideal.” They claimed receptivity factors can be used as a diagnostic checklist to assist organisations in their change efforts.

The development of ORC scale entails a more refined operationalization of each receptivity factor. Practitioners can then use this scale as the diagnostic checklist as recommended by Newton *et al.* (2003). The checklist will then allow hotel managers to uncover the internal contexts that act as a barrier to change and allow them to make improvements.

## **1.4 RESEARCH OBJECTIVES**

The theoretical contributions of the study help identify and refine the research objectives. The main objective of this research is to identify organisational contexts and capabilities that allow organisations to adapt faster, and enable movement along the homogeneity-heterogeneity continuum based on environmental demands.

The research endeavour is broken-down into three main objectives:

- 1) to develop a scale that measures each of the receptivity factors,
- 2) to determine the relationship between perceived environmental uncertainty and receptivity factors, and,

- 3) to determine the relationship between receptivity factors, competitive advantage and performance.

## **1.5 OUTLINE OF THE THESIS**

This thesis is divided into eight chapters. Below is the thesis structure with a brief description of each chapter:

Chapter 1 (Introduction) offers an overview of the study and introduces the general framework for the design and implementation of the research. The chapter provides the justification for the research and highlights the contributions, which the study makes to knowledge including theoretical, methodological and managerial contributions.

Chapter 2 provides a review of the literature relevant to this study, which includes discussion of institutional theory, RBV theory and ORC theory. The chapter also address how ORC theory conjoins institutional theory with RBV theory. This provides a platform to integrate the receptivity factors in ORC theory to RBV framework. Finally, this chapter describes the conceptual framework for the current study.

In Chapter 3, the methodology used in this study is discussed. It includes the philosophical underpinnings of the research methodology adopted to achieve the research objectives. Various issues related to the use of a mixed methods research design are outlined. This includes discussion on paradigm issues and implications in research design. The last section of the chapter outlines the research design used in the study. It describes the Hinkin (1995) instrument development process as well as some additional steps that were included in the research methodology.

The next four chapters will discuss the results of the research according to the Scale Development Phases that was recommended by Hinkin (1995).

Chapter 4 discusses the first phase of Scale Development, which is the Item Generation Phase. This phase is divided into three steps: 1) literature review, 2) semi-structure questionnaire, and 3) expert judges. The chapter discusses how the list of items was reduced based on each step in this phase. The final result for this phase is a list of items that measures each receptivity factor, which will be brought forward to the next phase in scale development.

Chapter 5 presents the findings from the second phase of the instrument development process. This phase is divided into three steps, which are: 1) Design of the Developmental Study, 2) Scale Construction and 3) Scale Evaluations. The chapter outlines how this study reduces and refines the scale that measures each of the receptivity factors. The final outcome of this chapter will be a more robust scale that measures each of the receptivity factors.

Chapter 6 presents the findings from the final phase – scale evaluation. The objective of this phase is to re-evaluate the new scale's reliability and validity. Next is a discussion of the hypothesis for this study. To test this study's hypothesis, the chapter outlines RBV framework to be used in the final questionnaire and distributed within the hotel industry in Malaysia. The chapter also analyses this study's hypotheses.

Chapter 7 is the discussion chapter, which links the results to the theoretical underpinnings. Implications of the findings in the last four chapters are discussed in detail in this chapter.

Chapter 8 is the final and concluding chapter of this study, where it will attempt to direct future research in the use of receptivity factors in other research contexts. This chapter also discusses the delimitations and limitations of this study.

# Chapter 2

## Literature Review

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### 2.1 INTRODUCTION

In highly competitive environments, organisations must constantly change to produce continuous temporary advantages (Fiol, 2001). Sustainable competitive advantage is likely to be derived from the organisation's ability to destroy and rebuild specialised and inimitable resource capabilities over time (Fiol, 2001). These abilities then affect the level of heterogeneity in the industry (Oliver, 1991). Institutional theory and RBV theory have generated valuable insight in explaining how organisations react to environmental pressures. However, both theories focus on different assumptions, where institutional theory focuses on how an organisation's quest for conformity and legitimization creates homogeneity in the industry (Phillip & Tracey, 2007), while RBV theory focuses on how an organisation's quest of profit optimization creates homogeneity in the industry (Newbert, 2008).

These two divergent assumptions place the two theories at different ends of the homogeneity-heterogeneity continuum. The main contribution of this study is to draw upon both theories as a base to extend ORC theory in explaining sustainable competitive advantage. ORC theory conjoins the two theories by combining both institutional contexts and dynamic capabilities to provide a holistic explanation as to how organisations are able to move along the continuum based on the existing environmental pressures. This study posits that receptivity factors consist of both institutional contexts and dynamic capabilities which allow organisations to be more flexible and adaptive to change.

This chapter begins with a discussion on various perspectives on organisational change. This section provides a macro overview of the literature on change and the various themes in the literature. The discussion helps create the basis to position ORC theory within the literature.

The next two sections delve into institutional theory and RBV theory. It provides insight into both theories by discussing them separately. The review of each theory allows a

greater understanding on the basic/core assumptions, core arguments and limitations of both theories. It provides building blocks in the development of ORC theory.

Then, this chapter will discuss literature relating to the issues of combining the two theories to provide a holistic explanation on sustainable competitive advantage. This study will focus on Oliver's (1997) framework, and position ORC theory as a theory to conjoin institutional and RBV theories.

The discussion then continues to describe the development of ORC theory. This section will detail the basic assumptions behind each receptivity factor and the definition of each factor. This section will also discuss issues relating to ORC theory, and how it can conjoin institutional theory and RBV theory.

The final section of this chapter addresses the main theoretical contribution of this study. The main theoretical contribution is to use ORC theory to explain sustainable competitive advantage. This is achieved by applying receptivity factors to RBV framework. The study proposes that receptivity factors play a role in increasing the organisation's ability to attain competitive advantage such that higher levels of receptivity factors will lead to higher levels of competitive advantage.

## **2.2 PERSPECTIVES IN ORGANISATIONAL CHANGE**

The body of literature and research on organisational change is huge and very diverse. It is difficult to integrate the literature into a single perspective, mainly because scholars have not converged on a single question regarding change in organisations (Van de Ven & Hargrave, 2004). The word change refers to "an empirical observation of differences in form, quality of state over time in an organisational entity" (Van de Ven & Poole, 1995; p.512). The organisational entity could mean a variety of organisational aspects, thus adding to the variation in research questions.

Two journal articles have categorised the change literature. Both articles shed light as to how academicians can position their research within the change literature. The first article is by Amernakis and Bedeian (1999), where they reviewed theoretical and empirical change literature over a nine-year period. Four themes emerged from the review: 1) content of change, 2) context of change, 3) process of change, and 4) outcomes of change. The second article is by Van de Ven and Hargrave (2004) where they found

four distinct perspectives on organisational change which are: 1) institutional design, 2) institutional adaptation, 3) institutional diffusion, and 4) collective action.

The first theme in organisational change identified by Armenakis and Bedeian (1999) is change content. This theme focuses on substances of contemporary organisational change, specifically on factors that revolve around successful and unsuccessful change implementations. It includes the relationship between the organisation and its environment as well as factors within the organisation itself (Vollman, 1996).

The second theme is change context, which focuses on forces and conditions in the external and internal environments that underlie the organisation's effectiveness in responding to environmental change (Armenakis & Bedeian, 1999). The external environment sets downward pressure on organisational change, forcing the organisation to respond. The analysis of the internal factors focuses on the congruency or fit between various internal factors and the change considerations (Damanpour, 1991). Internal factors include strategic orientation, leadership, culture, vision, and strategy (Burke & Litwin, 1992).

Armenakis and Bedeian (1999) identified change process as the third theme in change literature. This theme focuses on the actions undertaken during the enactment of an intended change. The actions are conceptualised at various levels. They are: 1) environment, 2) organisational, and 3) individual. The process research is divided into two sections, the first relates to the recommendations of various phases of change agents to follow in implementing change (Lewin, 1947; Armenakis *et al.*, 1999), whereas the second focuses on understanding how organisational members experience change as it unfolds (Jaffe *et al.*, 1994).

The final theme is outcomes of organisational change (Armenakis & Bedeian, 1999). It focuses on employee-related outcomes that are considered in the framework of planning and implementing of an organisational change, such as receptivity or resistance (Clarke *et al.*, 1996), commitment (Meyer & Allen, 1997), and cynicism (Dean *et al.*, 1998).

The second article consolidated the change literature into four distinct perspectives on organisational change (Van de Ven & Hargrave, 2004). Each perspective addresses different questions, and rely on a unique mechanism or motor to explain change. The first perspective is institutional design. This perspective focuses on the "purposeful

creation or revision of how institutions address conflict or social justice” (Van de Ven & Halgrave, 2004; p.8). Research in this perspective focuses on the actions taken by individuals to create or change institutional arrangements (Barley & Tolbert, 1997). The objective is to address the questions of “how institutions are created and emerge through purposeful enactment and social construction” (Van de Ven & Halgrave, 2004; p.8). The theoretical lens for this perspective is the old intuitionist theory, where institutions are viewed as working rules that emerge to address problems and institutional change is described as gradual, incremental, deliberate, and occurring through the process of collective actions of various actors (Ruttan, 2001). The new-institutionalist emphasize on the effects of cognitive behaviour to explain changes in institutional design, rather than on norms or values (Brint & Karabel, 1991). The designed institutional change focuses more on intentional choices, rather than unconscious deviations from institutional context (Barley & Tolbert, 1997).

The second perspective is institutional adaptation, where the focus is on “how and why specific institutions are adopted (selected), and diffused (retained) in a population” (Van de Ven & Halgrave, 2004; p. 8). The new institutional perspective is characterised as taking institutional adaptation perspective, where the main focal question is why organisations are so similar (Van de Ven & Halgrave, 2004). The central idea is that organisations conform to institutional pressures in order to achieve legitimacy. Therefore, the study of change in this perspective is focused on changes in institutional characteristics in response to changes in environments (DiMaggio & Powell, 1983). It recognises that response to institutional pressures is determined by certain organisational factors such as: 1) organisational attributes, 2) linkages with other actors in the environment, and 3) location and status of an organisation’s reference group (Scott, 2001). It also addresses the interaction between organisational context and action, where the incidence and pace of change is determined by: 1) normative embeddedness of organisations within its institutional context, 2) differences in structure of the sector, and 3) internal organisational dynamics (Greenwood & Hinings, 1996).

The third perspective is institutional diffusion, where it examines how institutional arrangements reproduce, diffuse and decline in the organisational field (Van de Ven & Halgrave, 2004). It focuses on the diffusion of a particular institutional practice within organisations sharing the same institutional context, and discusses the conditions in which

diffusion occurs (Aldrich, 1999). The spread of organisational forms is based on an organisation's quest for legitimacy, and institutional pressure is assumed to be the cause for the diffusion of new forms and practices in the field (Lee & Pennings, 2002).

The final perspective looks at the collective actions where it posits that institutional change emerges through intentional collective action (Van de Ven & Halgrave, 2004). It focuses on "the social and political processes which facilitate and constrain the development of a technological innovation or a social movement, and through which institutions emerge or alter" (Van de Ven & Halgrave, 2004). It emphasises the intentional efforts to produce change, which is similar to institutional design perspective. However, the unit of analysis differs with the other perspective where it is more directed towards the industry or inter-organisational field rather than individual actors (Clemens & Cook, 1999).

Van de Ven and Halgrave (2004; p. 62) propose that the four perspectives provide an "internally consistent account of institutional change process" that explains various facets of institutional change. They claimed that it is important for research to identify which perspective is suited to be used as the basis of their research.

Both articles provide guidelines to position this study in the organisational change literature. ORC theory falls under three of Amernakis and Bedeian's (1999) categories, which are content, context, and process. Based on Van de Ven and Poole (2005) categories, ORC theory falls under the second perspective. Pettigrew *et al.* (1992) claimed that change literature in the 90s did not delve into integration of content, context and process of change, thus providing very little insight as to which institutional factors play an important role in change implementation. Furthermore, Ashburner *et al.* (1996) argued that processual research on change provides important insight as to how change processes are managed, and how various institutional forces or factors affect change. McNulty and Ferlie (2004) further argued that the contextualist (Pettigrew, 1985), and co-evolutionary (Lewin & Volberda, 1999) perspectives promote understanding of change that takes into account the interplay between structural and agency dynamics.

As discussed by the literature, for this study, the main theoretical lens used to study change is the institutional theory. This also includes ORC theory. However, this study proposes further development of ORC theory, which leads to the identification of new

receptivity factors which are more relevant to RBV theory. This study posits that ORC framework has two theoretical lens, institutional theory and RBV theory. The next few sections will discuss institutional theory and RBV theory separately, and then elaborate the possibility of conjoining the two theories to provide a more holistic explanation of sustainable competitive advantage.

## **2.3 REVIEW OF INSTITUTIONAL THEORY**

Institutional theory represents a robust sociological perspective of organisational theory (Greenwood & Hinnings, 1996). It defines institutional sectors as those “characterised by the elaboration of rules and requirements to which individual organisations must conform, if they are to receive support and legitimacy from the environment” (Meyer, 1992; p.140). It differs from the economic and strategic frameworks, where institutional theory emphasizes the extent to which organisational behaviour is “compliant, habitual, unreflective, and socially defined” (Oliver, 1997; p.699). Specifically, it studies the forces within institutional environment that guide and constrain legitimacy seeking behaviours in organisations (Judge *et al.*, 2009).

The theory utilises three levels of analysis (Scott, 1995). The first level is at the societal and global level. Institutional forces provide institutional context that shape, constraint, and facilitate structures and actions at the lower level. The next level of analysis is the governance structure, which consists of organisational field defined as “those organisations operating in the same domain, along with organisations that critically influence their performance” (Judge *et al.*, 2009; p. 768). The final level is the organisational level. This level addresses issues relating to organisational size, function, structure, culture, capacity to change and how all these factors influence the organisational field, and institutional environments (Scott, 1995). Scott (1995) provides an illustration on various concepts and relationships explained in the theory.

***Figure 2.1 Conceptual Model of Institutional Theory and Institutional Forces***



Source: Scott (1995; p. 147)

The key assumption of this theory is that organisations operate within a social network of norms and values that creates boundary for appropriate and acceptable organisational behaviour (DiMaggio & Powell, 1983). Organisations often have to change in order to adapt to environmental changes, and in turn affect other organisations within the same population. To attain sustainability and survival, organisations emulate changes done by others in the same field, thus creating a homogenized industry.

The best concept in the theory which captures homogenization process is isomorphism (DiMaggio & Powell, 1983). Isomorphism is “a constraining process that forces one unit in the population to resemble other units” in the same industry, this is where organisations would modify their characteristics to make them compatible with the environmental characteristics (DiMaggio & Powell, 1983; p. 149). Homogenization happens due to rewards received through the attainment of legitimacy by conforming (Scott, 1997). The theory asserts that organisation behaviours not only respond to market pressures but also other institutional pressures such as regulatory agencies, social expectations, and actions by other leading organisations in the industry (Greenwood & Hinnings, 1996).

Consequently, the evolution of institutional theory has divided the theory into “old” and “new” institutional approaches. Selznick (1949) established the “old” institutional approach, where it focused on the internal dynamics of organisational change specifically factors such as: 1) organisational values, 2) organisation-environment interactions, 3) coalition, 4) influence and power, 5) informal structures, and 6) conflict and interest (Greenwood & Hinnings, 1996; p. 1031). Alternatively, the “new” institutional approach focuses on issues of legitimacy, routine, scripts and schemas (Greenwood & Hinnings, 1996). It presents an exploratory framework to analyse organisational isomorphism by explaining how various institutional pressures create homogeneity in industry for example in terms of organisational structure (Meyer & Rowan, 1977). The concept of organisational field was introduced by new institutional theory, which is defined as “those organisations that, in aggregate, constitute a recognized era of institutional life: key suppliers, resource and product consumers, regulatory agencies and other organisations that produce similar services and products” (DiMaggio & Powell, 1983; p. 147).

This approach highlights the importance of legitimacy as opposed to efficiency as an explanation of organisational structures. Isomorphism is explained through the identification and discussion of institutional isomorphic pressures from institutional environment. DiMaggio and Powell (1983) identified three isomorphic pressures: 1) coercive, 2) mimetic, and 3) normative. The coercive pressure is exerted by a regulatory agency, where legitimacy is attained when organisations satisfied regulatory requirements. Mimetic pressures arise from uncertainty, where higher levels of uncertainty would motivate organisations to imitate leading organisations in order to survive. Normative pressures arise from the professionals within the organisations that

have their own norms and networks generated through professional or other forms of education background.

The role of these institutional pressures on organisational change provides insights on how they inhibit or expedite change within organisations (Greenwood & Hinings, 1996). They influence stability of organisational arrangements, characteristics of inertia rather than change, and the roles of various types of institutional pressures in affecting change capabilities (Scott, 2001; Oliver, 1997). The pressures determine the direction of change, for example how coercive pressures like government mandates can shape the behaviour and industry structure. Furthermore, mimetic pressures explain how homogeneity exists when changes within organisations are reflective of changes happening in other organisations within the industry (DiMaggio & Powell, 1991). In contrast, normative pressures create isomorphism through 1) formal education produced by universities, and 2) growth and collaboration of professional networks that span organisations (DiMaggio & Powell, 1983).

Oliver (1997) claimed that resource selection and sustainable competitive advantage are influenced by institutional contexts of the resource decisions, where institutional pressures exists at three levels – individual, firm, and inter-firm level. Individual level comprises norms and values in the organisation. Firm level consists of organisational contexts such as culture and politics. The final level, inter-firm level, encompasses public and regulatory pressures and industry wide-norms. Oliver (1997) argued that all institutional pressures have an effect on the organisation's potential to gain economic rent.

### **2.3.1 Limitations of Institutional Theory**

The main criticism of the theory is that it is weak at analysing the internal dynamics of organisational change (Greenwood & Hinings, 1996). The main theoretical question for this theory is “why is there such startling homogeneity, not variation?” (DiMaggio & Powell, 1991; p.63). Initially, the theory explains similarities and stability in organisational arrangements, and how homogeneity exists due to conformity behaviours to attain legitimacy in the industry (Phillip & Tracey, 2007). Nonetheless, homogeneity increases legitimacy, reduces uncertainty and increases standardization in the industry (Berrone *et al.*, 2007).

When applied to explain change within organisations, institutional theory focuses on explaining why inertia exists, rather than how organisations are able to change faster to adapt to environmental conditions and demands (Oliver, 1997). It does not explain why some organisations are able to adopt radical change whilst others do not, despite being exposed to the same environmental conditions (Greenwood & Hinings, 1996). It does not look at the uniqueness of organisational culture in helping organisations be more receptive to change. Its main assumptions ignore how diversity exists, and how organisational changes happen within organisations (Powell, 1991). Consequently, the concept of organisational capabilities “has not been systematically applied to institutional theory” (Phillip & Tracey, 2007; p.315). Furthermore, it is fixated on explaining homogenization in the industry based on various institutional pressures, hence leading to similar strategies, structures and practices among organisations in the same industry (Berrone *et al.*, 2007).

Kostova *et al.* (2008) further argued that institutional theory does not fully explain the relationships between institutional pressures and organisations that are dynamic, discretionary, symbolic and pro-active. The theory has problems in explaining how organisations (e.g. MNCs) deal with inconsistencies in different environments that do not easily allow the emergence of shared patterns necessary to define a field (Kostova *et al.*, 2008). Diversity in environments gives the organisation broader latitude in picking and choosing which business models to adopt, and to what extent should they respond to these pressures (Kostova *et al.*, 2008). There are instances where institutional pressures are limited to the boundaries of the law, where organisations have latitude to choose their responsiveness to the local institutional environment. In this case, there is little enforcement of cognitive and normative institutional pressures placed on these organisations (Kostova *et al.*, 2008).

Isomorphic pressures might address how certain industries stay stable over time, however institutional theory does not explain the mavericks within the industry. It does not discuss how certain organisations are able to break the boundaries of the industry and revolutionize the industry. Additionally, it does not focus on how organisation behaviour is motivated by economic optimization (Greenwood & Hinings, 1996). It is rarely used to explain competitive advantage (Oliver, 1997), and lacks attention to strategic behaviours unlike other theories like RBV theory (Drazin & Van de Ven, 1985).

Moreover, institutional theory explains the implementation of practices without discussing its implication on the attainment of economic value (Berrone *et al.*, 2007).

One way of overcoming these limitations is by conjoining institutional theory with another theoretical lens to provide a holistic picture as to how organisations are able to balance the opposing need of conformity to industrial standards (homogeneity) and need for economic optimization (heterogeneity). Oliver (1997) suggested that one key strategic implication of an institutional isolating mechanism is that sustainable competitive advantage is dependent on the organisation's ability to mobilize necessary political and cultural support to create valuable resources. She proposed combining institutional theory with RBV theory to explain the interplay of institutional factors with various organisational resource and capabilities to create sustainable competitive advantage for an organisation. However, prior to discussions on conjoining the two theories, this study will elaborate on RBV theory in the next section.

## **2.4 REVIEW OF THE RESOURCE-BASED (RBV) THEORY**

RBV theory is one of the most widely accepted theoretical perspectives in strategic management field (Priem & Butler, 2001). It stems from the Chamberlinian perspective, which addresses the role of resources, capabilities, and core competencies as the main source of competitive advantage (Selznick, 1957). It is based on the old concept where economic rent is generated by organisational-level efficiency advantages that focus on the strengths and weaknesses of organisations (Penrose, 1958).

The main assumption is that organisations are fundamentally heterogeneous in their resources and internal competencies, and not based on strategic positioning (Barney, 1991). In contrast with the assumptions of institutional theory, RBV theory emphasises the internal analysis of difference in resource endowments across firms within the same institutional context (Wernerfelt, 1984). It posits that the attainment of sustainable competitive advantage is dependent on how well organisations acquire and develop resource/capabilities to fit their strategic intent (Wernerfelt, 1984).

Based on this foundation, the theory creates other assumptions: 1) heterogeneity of organisation within an industry (Rumelt, 1984), and 2) the idea of high mobility of resources (Barney, 1986). Industries are heterogeneous because organisations strategic

resource/capabilities are at their control and resources may not be perfectly mobile, thus allowing the heterogeneity to last longer (Barney, 1991).

Changes in organisational behaviour can be triggered by “employing a strategy of analysing and designing the organisational environment” (Pfeffer & Salanci, 1978). Organisational strategies are not limited to organisation structure but to the dynamics of their behaviour which includes allocation and combination of resources and capabilities to enhance competitive advantage (Stalk *et al.*, 1992).

The theory clearly defines resources and capabilities and explains how each contributes to sustainable competitive advantage. Organisational resource is defined as “all assets, capabilities, organisational processes, attributes, information, knowledge that are controlled by the organisations that enables them to implement strategies that improve its efficiency and effectiveness” (Barney, 1991; p.101). These include all the physical, financial, skills and other organisational resources (Barney, 2001). These resources are close to the notion of dynamic capabilities.

Capabilities are defined as “the socially complex routines that determine the efficiency with which organisations physically transform inputs into outputs” (Collis, 1994; p. 145). There are three categories of capabilities contribute to organisational heterogeneity. The first category of capabilities reflects the organisation’s ability to perform basic functional activities, such as logistics and marketing campaigns. The second is capabilities that share the common theme of dynamic improvements to the activities of the organisation and ultimately, is the meta-capability that relates closely to the metaphysical strategic insights that enables organisations to recognize the intrinsic value of other resources or develop novel strategies before competitors (Collis, 1994). The third capability allows organisations to respond quicker to environmental changes and helps them stay ahead of competitors. It is hard to make a clear distinction among the three categories, and even harder to create an exclusive typology of capabilities because of the wide variety of capabilities in every industry (Collis, 1994).

Competitive advantage is attained through the organisation’s ability to create value based on the resources unused by competitors (Conner, 1991). RBV explains that the main source of competitive advantage is heterogeneity in the industry, where other organisations in the industry are unable to imitate or duplicate the benefits attained

through the acquisition and combination of resource and capabilities (Barney, 1991). Organisations need to ensure that these resources and capabilities are valuable, rare, and imperfectly inimitable (Barney, 1991).

The value of a particular resource is context dependent, where it is determined in relation to other conditions such as organisations strategy, and external environments (Priem & Butler, 2001). Valuable resources enable organisations to 1) more effectively satisfy customer needs, and 2) lower the costs of satisfying customer's needs (Allred *et al.*, 2011). Rare refers to the organisation's possession of attributes and characteristics that are unique to them (Peteraf, 1993). Inimitable refers to the importance of these attributes and characteristics. Without it, other organisations would be able to successfully adopt the same practices (Barney, 1991). The sources of inimitability are: 1) unique historical conditions that form the basis of the resource creation and development, 2) ambiguous relationships between resources and the resulting competitive advantage, and 3) the social complexity of resources (Dierick & Cool, 1989). The figure below illustrates Barney's (1991) conceptual model (**Figure 2.2**).

**Figure 2.2 Barney's (1991) Conceptual Model**



Source: Barney (1991)

The conceptual model spurred empirical research on RBV theory, which has accumulated significant contribution despite the difficulties in dealing with intangible constructs inherent in RBV (Godfrey & Hill, 1995). Researchers analysed various types of resources, capabilities and processes that organisations use to gain competitive advantage including: 1) core capabilities, 2) core competencies 3) combinative capabilities, 4) transformation-based competencies, and 5) capabilities (Newbert, 2007). Newbert's

(2007) systematic assessment of RBV theory suggested that capabilities and competencies are better explanation of performance than organisational resources.

#### **2.4.1 Limitations of RBV Theory**

Despite the numerous contributions of RBV, many researchers criticized it as being static (Priem & Butler, 2001). It does not specifically address how “future valuable resources could be created and how the current stock of VRIN (valuable, rare, inimitable and non-substitutable) resources can be refreshed in changing environments” (Ambrosini & Bowman, 2009; p.29). Organisations facing rapidly changing environments must have the capacity to create new resources and renew or alter its existing mix of resources to attain sustainable competitive advantage (Teece *et al.*, 1997). Furthermore, RBV does not provide a clear explanation on how some successful organisations demonstrate “timely responsiveness and rapid/flexible product innovation, along with management of capability to effectively coordinate and redeploy internal and external competencies” (Teece & Pisano, 1994; p. 537).

A majority of the literature is predominantly focused on the first category of capabilities in Collis’s (1994) type of capabilities, where it revolves around the organisation’s ability to carry out basic functional activities. Thus, this leads to another body of literature, dynamic capabilities theory which extends the assumptions of RBV. The next section will discuss the dynamic capabilities theories in more detail.

The other criticism on RBV theory is it over-emphasizes the importance of resource markets and rational economic action, and disregard the social context in which organisation’s choices are embedded (Ginsberg, 1994). It also does not provide adequate attention on context. Institutional frameworks include formal institutions (such as laws and regulations) and informal institutions (such as cultures and norms) have been assumed as the organisation’s “background” (Peng *et al.*, 2008; p. 66). This treatment of institutions as a background conditions leads to insufficient understanding of strategic behaviours (Oliver & Holzinger, 2008).

### 2.4.2 Dynamic Capabilities

The limitations of RBV theory led to the development of the dynamic capabilities theory. This theory is an extension of RBV, mainly due to both theories share the same assumptions about the role of resources and capabilities, and not privilege of market position as the source of competitive advantage (Ambrosini & Bowman, 2009). This theory considers the organisation to be a “bundle of heterogeneous and path-dependent resources, and both address the way in which organisations are able to generate sustainable competitive advantage” (Ambrosini & Bowman, 2009; p.31).

It views organisations as the mechanism that involves organisational learning and the accumulation of skills and capabilities that determine the rate and direction of the organisation (Teece *et al.*, 1997). It argues that organisations not only need to possess rare and valuable resources and capabilities, but also must be able to exploit them continuously (Amit & Schoemaker, 1993). It explains that past experiences are accumulated through organisational routines and embedded in the culture. These capabilities have been developed by “learning by doing” that allow organisations to attain a unique way of exploiting their resources (Eisenhardt & Martin, 2000). The discussions on dynamic capabilities arose when researchers addressed the issue of rapidly changing external environmental conditions (Teece *et al.*, 1997). However, Eisenhardt and Martin (2000) posited that dynamic capabilities play an important role in moderately changing environments, where in such environments “capabilities are detailed, analytic, stable processes with predictable outcomes.” However, in high velocity environments, these capabilities are “simple, highly experimental and fragile processes with unpredictable outcomes” (Eisenhardt & Martin, 2000; p.1105).

Newbert (2007) further argued that the literature on RBV theory is still in its infancy and more definitive answers will emerge as more empirical research is conducted. Another problem with the theory is the definition of dynamic capabilities is tautological. The first definition of dynamic capabilities is ‘it’s the organisation’s ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments’ (Teece *et al.*, 1997; p. 516). Since then, researchers came up with other variations in definition of dynamic capabilities (see Eisenhardt & Martin, 2000; Zollo & Winter, 2002; Zahra *et al.*, 2006; Wang & Ahmed, 2007; Helfat *et al.*, 2007).

### **Figure 2.3 Dynamic Capabilities Framework**



Source: Ambrosini and Bowman (2009)

Ambrosini and Bowman (2009) found several main themes based on all the definitions which are; 1) each definition reflect dynamic capabilities as organisational processes that have an impact of changing resource base, 2) these capabilities are built from within rather than bought from the market, and 3) these capabilities are path-dependent and embedded in the organisations.

Currently, research into dynamic capabilities highlighted different organisational resources and capabilities as a source of sustained competitive advantage (Helfat & Peteraf, 2003). Dynamic capabilities identified in research are: 1) role of top management in deployment of capabilities (Teece *et al.*, 1997), 2), role of managers in the generation of capabilities (Ambrosini & Bowman, 2009), and 3) identification of the organisation processes and other internal factors that contribute to the organisation's ability to reconfigure, integrate, and co-ordinate existing capabilities (Eisenhardt & Martin, 2000).

The next sections will address how RBV and dynamic capabilities theories can be used to explain sustainable competitive advantage.

### **2.4.3 RBV theory and Dynamic Capabilities Concept in Explaining Competitive Advantage**

Competitive advantage is defined as the “capacity of an organisation to create a defensible position over its competitors” (Li *et al.*, 2008). It consists of a set of distinctive capabilities and competencies that differentiates one organisation from their competitors. It explains how heterogeneity within the industry is created and how organisations use these capabilities and competencies differently, thus, giving them an edge in the market (Tracey *et al.*, 1997).

The theory on competitive advantage is grounded in economics. The theory explains how organisations are able to achieve and sustain their competitive advantage in a particular industry (Chamberlin, 1933; Schumpeter, 1934). However, the literature that explains this phenomenon is wide and varied (Mintzberg & Lampel, 1999).

Two dominant theoretical perspectives that explain competitive advantage are industrial organisational theory and chamberlinian theory. The industrial organisational theory assumes that within an industry, organisations are identical in terms of strategic relevant resources that they control, and the strategies that they pursue. It assumes that resources within an industry are identical because resources are highly mobile in the market (Porter, 1981). Therefore, the key in attaining competitive advantage is through the selection of appropriate industry, and positioning of an organisation within that industry. Theorists in this perspective discuss the linkages of specific skills, and the use of resource/capabilities to enhance competitive advantage. They pay little attention in defining what constitutes resources, capabilities and processes. They do not explain how these resources/capabilities are identified, created, developed, maintained, and coordinated (Mintzberg & Lampel, 1999). Though the theory acknowledges resources as a source of competitive advantage, it is concerned with organisational activities (Snyder & Ebering, 1992). This line of thought is criticized as obsolete as competitive environment has changed dramatically since the 1980s (Hamel & Prahalad, 1994). The source of competitive advantage now lies in how the manager positions the organisation based on the optimization of the organisation’s resources and capabilities (Hamel & Prahalad, 1994).

Another body of literature emerged to address the relationship between resource optimization and competitive advantage, RBV theory. RBV theory is based on the

Chamberlinian theory, where it addresses the role of resource, capabilities and core competencies as the main source of competitive advantage. Selznick (1957) published one of the first articles to introduce the concept of distinctive competencies, which forms the basis for RBV theory. RBV theory posits that competitive advantage is achieved through development and acquisition of distinctive resources to implement strategic intent (Wernerfelt, 1984). It assumes that organisations are heterogeneous because of their resources and capabilities. The theory analyses which resource/capabilities contribute most to attaining competitive advantage (Barney, 1991).

However, as discussed in section 2.4.1, there are limitations to RBV theory. The theory has “not looked beyond the properties of resource to explain an enduring firm heterogeneity” (Oliver, 1997; p.697). It does not examine the embeddedness of these resources in the social context and how these contexts affect sustainable differences (Ginsberg, 1994). Due to these limitations, Oliver (1997) proposes conjoining RBV theory with institutional theory to explain heterogeneity and sustainable competitive advantage. The next section will discuss the works that discuss the possibility of conjoining the two theories.

## **2.5 COMBINING INSTITUTIONAL THEORY WITH RBV THEORY**

The development of RBV and institutional theories have been viewed separately. However, recent discussions in the management and organisations literature have led to a new theoretical perspective – combining RBV and Institutional theories in explaining competitive advantage. A seminal article by Oliver (1997) proposed that the merger of the theories is viable and will provide a more holistic explanation on sustainable competitive advantage. She claimed although RBV theory provides important insight on strategic behaviours, it does not look beyond the properties of resources and resource markets. Combining the two theories provides a bigger picture that encompasses the institutional contexts surrounding resource decisions (Oliver, 1997).

According to Oliver (1997), both institutional and RBV theories provide important yet different domains of organisational action. The main difference is the perception of organisational outcomes, and assumption behind managerial choice and action. RBV theory assumes managers make rational choices (economic rationality) bounded by uncertainty, limited by information and heuristic bias, whilst institutional theory assumes

managers commonly make irrational choices (normative rationality) bounded by social judgments, historical limitations, and inertial force of habit (Oliver, 1997).

Importantly, Oliver (1997) addressed Barney and Zajac's (1994) call for an organisation-based theory to explain competitive advantage. She developed a conceptual model that incorporates the social context (grounded in institutional theory) with organisational resources and capabilities to explain competitive advantage. **Figure 2.4** illustrates the conceptual framework.

The proposed model focuses on the organisation's attributes of resources (i.e. uniqueness, rarity and non-substitutability), and social contexts that bound the organisation's decisions and behaviors (Oliver, 1997). Both resources (capabilities) and organisational contexts are important in attaining sustainable competitive advantage, that "even highly productive, inimitable resources (capabilities) will be of limited value without the organisation's will or political support to deploy them." There are three levels of analysis. At each level, she identified various institutional contexts i.e. critical determinants which affect resource choices and decisions. She suggested that organisations develop an appropriate combination of institutional and efficiency responsiveness (Martinez & Dacin, 1999), while balancing the need for resource optimization and achievement of legitimacy in order to succeed and survive (Oliver, 1997).

***Figure 2.4 Oliver's (1997) Conceptual Framework***



Source: Oliver (1997)

Oliver (1997) argued that future research should examine both resource and institutional capital as sources of competitive advantage. Resource capital is indicated by firm's strategic assets, whilst institutional capital relates to contextual factors that enhance optimal use of resource capital. She further claimed that sustainable competitive advantage depends on the speed new capabilities are embedded or integrated into the existing organisation's knowledge base and the frequency of these integrated capabilities are reevaluated and realigned (Oliver, 1997).

Oliver's (1997) proposition of combining these two theories led to other theoretical discussions on how institutional theory can complement RBV theory. It spurred a number of empirical research that drew on both theories to explain the research phenomena. Since Oliver's (1997) framework encompasses various levels of analyses with many variables, most empirical research focused only on one level of analysis, thus adopting specific level of Oliver's (1997) framework.

Since Oliver's (1997) work on combining these theories, newer studies supported her proposition with slight variations. One study, Hoskisson et al. (2000) recommended that institutional theory, RBV theory and transaction cost economics theory should all be combined to explain strategic formulation of private and public enterprises in emerging economies which comprise varying social contexts differing according to country context. In a study, Barney et al. (2001) proposed that combining RBV and institutional theory will allow further development in RBV theory. It was argued that the two combined theories can provide insight on developing local firm's resources which are more attractive and valuable to foreign counterpart. Barney et al. (2001) also addressed the development of RBV theory and its impact on other subject areas. They identified several areas that may benefit from incorporating some insights from other theories. One area is institutional environments. They reported that studies that combined the two theories addressed issues concerning how organisations are able to acquire necessary resources, and how these organisations deal with various institutional barriers.

Later studies in emerging economies have adopted four dominant theories. There are: 1) institutional theory, 2) RBV theory, 3) transaction cost theory, and 4) agency theory (see Wright et al., 2005). Emerging economies became a context in which the relative strengths and weaknesses of these theories were studied. Particularly, these theories were adopted to explain strategic options taken by various organisations which faced different

country contexts. Emerging economies can be described as a “high velocity” environment of rapid political, economical and institutional changes that is accompanied by underdeveloped factors and product markets (Wright et al., 2005). Institutional theory alone does not provide enough insightful answers to research question such as ‘how do organisations play the new game when the new rules are not completely known?’ (Peng, 2003; p. 283). On the other hand, RBV theory only focused on resources (capabilities) that underpins successful alliances and acquisitions. Resource fit is not indicative of organisational fit, and can have an impact on post-acquisition performance (Wright et al., 2005). Therefore, both RBV and institutional theories can address the issue of organisational fit. They can explain how multinational companies (MNC) address issues relating to factors affecting their managerial decisions. The combination provides better explanation on how the managers create learning mechanisms to overcome institutional barriers (Wright et al., 2005).

In a study, Fernandez-Alles and Valle-Cabrera (2006) built on Oliver’s (1991) theoretical arguments regarding the strategic response to institutional contexts by re-examining the institutional theory, and described how this theory can enhance the potential in explaining managerial decisions. They addressed some criticisms on institutional theory by presenting five paradoxes that arised out of the “confrontation of this theory with other more rational approaches” (Fernandez-Alles & Valle-Cabrera, 2006). These five paradoxes are: 1) conformity versus differentiation, 2) isomorphism versus heterogeneity, 3) legitimacy versus efficiency, 4) change versus inertia, and 5) institutions versus organisations. **Table 2.1** illustrates the five paradoxes in neoinstitutional theory. The first and second paradoxes were based on Oliver’s (1991, 1997) discussion on integration between RBV and institutional theory. The current study will only discuss the first two paradoxes as they relate to the theoretical contributions of this study.

Fernandez-Alles and Valle-Cabrera (2006) investigated how organisations which face institutional pressures, accept their stakeholder’s claims, yet can successfully create sustainable competitive advantage. It is important for organisations facing strong institutional and competitive pressures to emphasize on both differentiation and conformity proposition (Deephouse, 1999; Fernandez-Alles & Valle-Cabrera, 2006). The combination of institutional and RBV theories emphasizes on the strategic dimension of neo-institutional theory, thus providing a better understanding of organisational behaviour

and market imperfections (Fernandez-Alles & Valle-Cabrera, 2006). The explanation of competitive advantage should include the identification of manager's ability to interpret and respond to institutional mechanism of the contexts. The combination of the theories improves the understanding of how organisations behave when face with multiple institutional contexts (Fernandez-Alles & Valle-Cabrera, 2006) and strengthens the exploratory power of both theories (Barrone et al., 2007). The integration of theories can explain ways for organisation to simultaneously manage institutional and technical contexts (Fernandez-Alles & Valle-Cabrera, 2006).

**Table 2.1 Five Paradoxes in Neo-Institutional Theory**



Source: Fernandez-Alles and Valle-Cabrera (2006)

Adding to the discourse, Peng et al. (2008) suggested institutional theory to be the third theoretical lens to complete the foundation of understanding the fundamental questions on organisational strategy and performance, specifically looking at the internal forces within strategy. Profound differences in institutional frameworks between developed and emerging economies have forced scholar to pay more attention to institutional contexts in addition to using RBV theory and other industry-based theories (Li & Peng, 2008). These authors have argued for the integration of institutional and RBV theory because it is the best framework to explain differences in organisational performance (Peng et al., 2008).

All of the aforementioned theoretical studies have argued for the various possibilities to combine RBV and institutional theories. There are some empirical studies which drawn upon the combination of both theories to help researcher explained various phenomenons. Majority are in the international business literature, specifically in

emerging economies (see Peng, 2001; Meyer & Peng, 2005). These studies drew on both Oliver (1997) and Hoskisson et al.'s (2000) discussions on combining the two theories.

The institutional frameworks in emerging economies differ greatly from those in developed economies (Meyer & Peng, 2005). Therefore, the integration of RBV and institutional theories provides explicit considerations of institutional effects and its role in resource considerations (Meyer et al., 2008). Meyer et al. (2008) used the combined theories to explain how resource seeking strategies are pursued using different entry modes in different institutional context. They claimed that both theories complement each other especially when organisations are crafting their entry strategies. Furthermore, institution-based and resource-based variables complement and interact to predict entry strategies, and that both decisions are interdependent because both variables affect the suitability of the markets as channel to access to local resources (Meyer et al., 2008).

Other studies used both theories to uncover the relationship between strategic flexibility and institutional factors that impact strategic decisions. Peng et al. (2005) discussed the notion of “institutional relatedness” to explain the evolution of the scope of organisations in emerging economies over time. Institutional theory explains how organisations can overcome the institutional environments in emerging economies and improve its local branch's strategic flexibility (Uhlenbruck et al., 2003). The combination of both theories was used to investigate the extent to which external forces generate unique and inimitable capabilities, and how this affects organisation's propensity to innovate (Barrone et al., 2007).

One study by Auh and Menguc (2009) drew on both theories to create an integrated model to explain manager's inability to take particular actions or their reluctance or unwillingness to pursue certain economic behaviors. They discussed the role of various marketing institutional factors in affecting organisational performance. Subsequently, Kostova et al. (2008) called other researchers to develop more sophisticated application of institutional theory to fit the current changes in organisational external and internal environmental conditions.

In a study, Sherer and Lee (2002) integrated RBV and institutional theory to explain how resources scarcity combined with legitimacy enables drives change within an organisation. They claimed that the combination of the two theories is more predictive of

change. Drawing on this tenet, this study conceptualized organisational receptivity for change (ORC) as a multi-dimensional construct consists of both organisational contexts and organisational resources/capabilities.

The next section delves deeper into ORC theory and explains in greater detail how ORC theory, which draws on both institutional and RBV theory to explain the interplay between organisational contexts and organisational resource/capabilities, can enhance competitive advantage and performance.

## **2.6 ORGANISATIONAL RECEPTIVITY FOR CHANGE (ORC)**

The body of literature on ORC can be divided according to the level of analysis. One group of literature focuses on the overall organisation's receptivity towards change (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992), whilst the other group pays closer attention to receptivity of individual members of the organisation towards change (Beugre *et al.*, 2006; Devos *et al.*, 2002; Holt *et al.*, 2007; Zmud, 1984).

The literature on ORC focuses on explaining organisational contexts (factors) that affect the rate and pace of change. There are numerous other theories in other literature that explain this phenomenon (Van de Ven & Halgrave, 2004). Based on the discussion in various categories of change literature by Van de Ven & Halgrave (2004), this study posits that ORC theory is more focused towards explaining organisation adaptation and diffusion, specifically focusing on institutional contexts. However, majority of the literature only focuses on one context or capability (see Bartlett & Goshal, 1993). Another set of literature that explains adaptability and diffusion is the organisational flexibility led by Palanisamy and Sushil (2003). Hatum and Pettigrew (2004; p. 239) expanded the definition of organisational flexibility to include a "combination of a repertoire of organisational and managerial capabilities that allow organisations to adapt quickly under environmental shifts." However the operationalization of organisational flexibility construct is only based on two dimensions, which is degree of internationalisation and degree of product-market diversification. Furthermore, there was no development of a scale to measure organisational flexibility.

The other study that discusses various organisational context effects of change implementation and capability is the organisational change capacity (OCC) concept

(Judge & Douglas, 2009; Judge *et al.*, 2006). Judge *et al.* (2006) systematically identified eight factors associated with the “combination of managerial and organisational capabilities that allow an enterprise to adapt more quickly than its competitors to changing situations” (Judge & Douglas, 2009; p. 635). However, the development of the scale was not based on a theoretical framework but through the inductive analytical process using content analysis of literature on organisational change.

The theory on organisational flexibility and OCC concept draws predominantly from RBV theory, where the authors identified specific capabilities that enhance the organisation’s ability to adapt and attain competitive advantage. Resources and capabilities create resource optimization and sustained performance (Barney, 1991). Only OCC included some assumptions about institutional theory as it looks at contexts such as innovative culture and systems thinking, and its effects on change capability (Judge & Douglas, 2009). However, OCC predominantly consists of human resource factors that affect change (e.g. top management, middle management, change champions, and frontline employees), whereas ORC theory is predominantly focused on institutional context, as opposed to human resource assets and capabilities.

The current study focuses on various institutional factors and organisational capabilities that affect the rate and pace of change, and focuses on the organisational level as the unit of analysis. Specifically, this study investigates various internal organisational factors that affect the organisation’s ability to adapt faster to changing environmental conditions. In this line of research, several institutional factors were identified as receptivity factors. These factors are considered as higher-order capabilities that allow organisations to integrate and re-configure their existing resources and capabilities in order to create a highly flexible and adaptive organisation (Butler & Allen, 2008).

### **2.6.1 Development of ORC Theory**

The ability to handle complex change has been an issue for organisations, where the change decisions are dependent on numerous factors such as willingness to change, awareness of need to change and capacity for change (Zahra *et al.*, 2006). Pettigrew *et al.* (1992) have been the proponents of studying various organisational contexts that influence the organisation’s ability to change and adapt faster than its competitors. The

organisational contexts are organised into several receptive to change factors (i.e. receptive factors).

The notion of receptivity towards change offers a more traditional view of strategy, where it attempts to reveal institutional factors that contribute to the speed and variability of change implementation (Butler & Allen, 2008). The theory was first applied in the private sector where eight firms were analysed from four sectors to identify institutional factors that affect change (Pettigrew & Whipp, 1991; 1992).

The study conducted by Pettigrew & Whipp (1991) analysed data from four industries to examine the level of competition and strategic change. They are: 1) automobile industry, 2) book publishing industry, 3) merchant banking industry, and 4) life assurance industry. The findings proposed five organisational contexts that play a role in managing and implementing strategic change. The contexts (factors) are environmental assessments, coherence, leading change, and human resources as assets and liabilities. The authors link these five receptivity factors to strategic and operational change.

The research conducted by Pettigrew *et al.* (1992) was based on Pettigrew and Whipp's (1991) study. Pettigrew *et al.* (1992) conducted an in-depth longitudinal study of eight NHS regions in England and Wales. In their study, they explored why change became an issue in the NHS, and why there was variability in rate and pace of change between various trusts. They identified eight organisational factors, known as receptivity context (factors), that provided a linked set of conditions and created high energy around change. These factors are path dependant and embedded within the organisation. Furthermore, these factors are dynamic because they can be influenced by both external and internal environment.

Pettigrew *et al.* (1992) used institutional theory as the main theoretical lens to explain inertia in the NHS. The basic assumptions suggest that organisational behaviours are shaped by norms set by other organisations within the same industry as well as other environmental pressures. They adopted institutional theory to identify how the NHS was resistant to change, and provided an analytical tool that allows organisations to overcome resistance. They claimed strategic change is "highly contextually sensitive" and that standard "off the shelf" solutions, and individual competencies only have limited or partial impact (Pettigrew *et al.*, 1992; p. 27). It is the role of individuals leading the

change to identify and manage various organisational (i.e. receptivity) contexts (factors), in order to successfully plan and implement strategic change.

Pettigrew *et al.* (1992) defined “receptive context” as “a set of features of contexts (and also management actions) that seem to be associated with forward movements,” whereas, “non-receptive context” is described as “configurations of features which may be associated with blocks of change.” Jones (2003; p. 167) elaborated that these factors “represent a linked set of conditions providing high energy around change.”

ORC theory has been replicated and adopted by other researchers. Jones (2002) used the framework to explain performance differences in the adoption of strategic service change and benchmarking practices in eight District Health Authorities in United Kingdom. He merged ORC framework with a proposed benchmarking framework where he integrated both attributes of receptivity factors with factors relating to benchmarking implementations.

In another study, Newton *et al.* (2003) replicated the framework in its totality to analyse the applicability of ORC framework in another context. They applied ORC framework to evaluate the level of change in general medical practice to implementing Personal Medical Services (PMS) Pilot between 1998 and 2001. They sought to answer the following four questions concerning ORC framework: 1) is ORC framework applicable to other research setting as a descriptive and conceptualizing framework?, 2) what patterns of association are there between factors?, 3) is there temporal dimension to the salience of the factors?, and 4) to what extent does the change context move from receptivity to non-receptivity (or vice versa) during the course of the change? Consequently, they concluded that the framework “identifies a range of discrete facets of organisational change situations and enables the analyst to typify individual cases (or context) against an ideal” (Newton *et al.*, 2003; p. 152). Beyond that, the analyst can proceed to map out patterns of association between the factors to explain why a change initiative fails or succeeds, and identify factors which are necessary or sufficient for change to occur.

Pettigrew *et al.* (1992) formed the basis for another ORC framework. Butler (2003) and Butler and Allen (2008) adopted the definition of organisational receptivity for change but adopted ORC framework in another research context outside the healthcare industry. Butler (2003) applied the theory to another public sector (Housing Authority), to identify

receptivity factors that impact strategy implementation in the English local government. Findings from Butler (2003) suggest that some of Pettigrew *et al.*'s (1992) factors are more specific to the healthcare industry, which limits the applicability of the framework to other industries. Butler (2003) further developed the framework by reducing and condensing the eight receptivity factors into four receptivity factors.

In another study, Butler and Allen (2008) uncovered another receptivity factor in their re-analysis of Butler's (2003) data. This factor was then integrated into Butler's (2003) ORC framework. The authors posited that receptivity is a "special type of self-organisation because it offers a hybrid methodological position in which both narrative and mechanical descriptions contribute" to the understanding of organisations. They claimed that the fifth receptivity factor (possibility space) sits on the narrative side whilst the other four receptivity factors sit on the mechanical side. Though the theory has been replicated and adopted by other researchers, Butler and Allen (2008) claimed that this theory is only an emerging and undeveloped idea.

The next section will discuss the different receptivity factors in both ORC frameworks (Pettigrew *et al.*, 1992 and Butler & Allen, 2008). This will allow the study to identify similarities and differences between the frameworks, thus allowing a comprehensive understanding of various types of organisational contexts that affect the organisation's ability to change. Furthermore, the discussion around the definition and development of each factor will serve as a basis for the generation of items to measure each receptivity factor.

### **2.6.2 Receptivity Context – Definitions and Dimensions**

There are two frameworks in ORC theory. The seminal work by Pettigrew *et al.* (1992) was the original ORC framework based on institutional theory. However, as the theory progressed, application of the theory into another research context led to the development of another ORC framework by Butler and Allen (2008). In the new framework, Butler and Allen (2008) consolidated the eight receptivity factors into four receptivity factors and identified a fifth factor. The fifth factor was uncovered when Butler and Allen (2008) drew on the complexity theory to explain the rate of change implementation in their research context. They finally posited that the fifth factor was a dynamic capability that enhances the organisation's ability to change. This proposition led to the inclusion of

RBV theory as a possible theoretical perspective in explaining organisation's ability to change and attain sustainable competitive advantage.

### **2.6.2.1 Pettigrew *et al.*'s (1992) ORC framework**

Pettigrew *et al.* (1992) uncovered eight receptivity factors that are associated with the rate and pace of change. Pettigrew *et al.*'s (1992) development of receptivity factors falls under Pettigrew's "contextualist" approach to organisational change. Drawing on institutional theory, Pettigrew *et al.* (1992) recognised the embeddedness of organisations within networks creates wider social relationships and adds to the level of complexity and contradictions, in which organisations both manage and create. Eventually, the mobilisation and activation of resources is dependent on context to realise the outcomes (Newton *et al.*, 2003).

These receptivity factors formed the basis of ORC framework where each factor is interlinked. Each factor is theoretically distinct, and the development of each factor was apparent in Pettigrew *et al.* (1992)'s analysis of the NHS's inability to change (Pettigrew *et al.* 1992). All factors are dynamic, where they are induced by environmental change, and are path dependent. Each factor is constructed through the process of cumulative development (Pettigrew *et al.*, 1992). **Table 2.2** lists the eight receptivity factors in Pettigrew *et al.*'s (1992) framework.

The first factor is quality and coherent policy. Pettigrew *et al.* (1992) asserted that high quality and a coherent policy help create a frame around highly uncertain strategic issues, and facilitate change implementation. They argued that clear conceptual thinking presents the necessary conditions that allow organisations to negotiate and change. It is critical to use a broad vision to help build commitment, and pull various organisational stakeholders to buy into the change process (Pettigrew *et al.*, 1992). Newton *et al.* (2003) supported this where they reported that incompatibility of vision with decision-making structure led to an increase in tension in the organisation. Such situation creates resentment amongst employees towards the change implemented. This assumption is deeply rooted in institutional theory, where it addresses the impact of various institutional pressures on managerial decisions (DiMaggio & Powell, 1983).

**Table 2.2 Eight Factors Associated with “Receptivity to Change”.**



Source: Pettigrew *et al.*, (1992)

Newton *et al.* (2003) further refined this factor by developing focal questions that address this context in greater detail. They identified key codes that represent this factor which are: 1) policy articulation, 2) policy coherence, 3) policy feasibility, 4) parallel strategies, 5) commitment, 6) top/bottom reconciliation and 7) programming (breaking down the vision into actionable pieces).

The second receptivity factor is simplicity and clarity of goals and priorities. This factor relates to manager’s ability to narrow down the change agenda into a set of priorities in the change implementation (Pettigrew *et al.*, 1992). The important issue here is to ensure that the priorities do not lose meaning and overwhelm employees. Newton *et al.* (2003) pointed that this factor looks at the action plan derived from the key priorities. Managers need to persistently and patiently pursue objectives that are associated with change, and insulate the core from the “constantly shifting short-term pressures” (Pettigrew *et al.*, 1992; p.31). This factor addresses the issue of how managers can use the priorities as ways to accommodate conflicting institutional demands and constraints (Oliver, 1997). Managers have to ensure they attain the support of those who shape and enforce institutional rules and beliefs, and get these individuals to be committed towards the change programme (Pettigrew *et al.*, 1992).

The third receptivity factor is key people leading change. Pettigrew *et al.* (1992) argued that though leadership is a crucial factor in change implementation, it does not necessarily relate to one person. A small group could be an effective factor, where organisations can leverage the team member's skills and assets to implement change. It denotes the collective, complementary and multifaceted nature of the team, which provides interwoven skills that allow greater combination of planning and opportunism (Pettigrew *et al.*, 1992). This factor refers to those who might or might not have a nominated role in the change management process, but can exercise influence in effecting or obstructing change (Newton *et al.*, 2003). These are the individuals who shape and enforce institutional rules and beliefs (Oliver, 1997). The individuals can force conformance in behaviours (DiMaggio & Powell, 1983). Newton *et al.* (2003) further refined the factor by using this factor to determine the nature of leadership, the continuity of leadership and the leadership capacity.

In contrast with Organisational Change Capacity (OCC) framework, Judge and Douglas (2009) identified three dimensions that relates to key people leading change which are: 1) trustworthy leadership, 2) capable champions, and 3) involved mid-management. The first dimension, trustworthy leaderships, refers to the ability of senior executive to earn the trust of employees and show them the way to meet their collective goals (Judge & Douglas, 2009). The second dimension, capable champions, refers to the ability of organisation to attract, retain and empower change leaders to evolve and emerge (Judge & Douglas, 2009). Lastly, the third dimension involved middle management and refers to middle management's ability to link senior executives with the rest of organisation (Judge & Douglas, 2009). All these dimensions discuss the importance of the various stakeholders on organisation's change capability. Main difference between OCC and ORC's key people leading change is that OCC focuses on separate (individual) effort. Whereas, Pettigrew *et al.* (1992) and Newton *et al.* (2003) notion of change leadership looks at the collective behaviours of individuals involved in change implementation.

The fourth receptivity factor in Pettigrew *et al.*'s (1992) ORC framework is supportive organisational culture defined as "having the set of value and behaviours that contribute to achieving change goals" (Newton *et al.*, 2003). The roles of culture and organisation's ability to change are deeply rooted in institutional theory (Van de Ven & Halgrave, 2004). Culture plays an important role in change implementation for it can either be an inhibitor

or an enabler to change. It can act as an invisible barrier that can cause myopia and inertia within the organisation, where decisions are made in line with socially and institutionally defined rules and norms (Greenwood & Hinings, 1996). Pettigrew *et al.* (1992) reported that tremendous energy is required to effect real cultural change therefore, it is crucial for organisations to have a culture that focuses on challenging and changing beliefs about success, and how to achieve it. Newton *et al.* (2003) further refined this receptivity factor to discuss employees' propensity to change, the sub-cultures that exist within the organisation, and the supportive actions demonstrated by various individuals within the organisation. In OCC scale, Judge and Douglas (2009; p. 638) also included culture as part of the dimension to explain the "ability of the organisation to establish norms of innovation and encouragement of innovative activity." They look at various aspects of culture that propagate innovation and change through the attraction and retention of creative people, and the provision of resources for experiments for new ideas.

The fifth receptivity factor is long-term environmental pressures. This factor relates closely to the arguments of institutional theory where it discusses the awareness of external pressures triggering change within the organisation (Newton *et al.*, 2003; Pettigrew *et al.*, 1992). This factor looks at the features of the locale where the change occurs. The locale factors that affect change in organisations are: 1) levels of unemployment, 2) issues relating to trade union, and 3) societal conditions (Pettigrew *et al.*, 1992). Though these conditions appear to be beyond the manager's control, an awareness of how the manager's decision impacts on the environment could be an obstacle to the change initiatives. This assumption is deeply rooted in institutional theory where managerial decisions made are based on socially accepted expectations, and not solely on resource optimization. Furthermore, the discussions of environment in Pettigrew *et al.* (1992) and Newton *et al.* (2003) are focused on institutional environment as opposed to the task environment discussed in RBV theory (Oliver, 1997).

The sixth (fit between change agenda and its locale) and seventh receptivity factors (cooperative inter-organisational networks) draw specifically on institutional theory. Both receptivity factors focus on the role of institutional environment creating pressures that will influence the direction and outcome of change implementation (Newton *et al.*, 2003; Pettigrew *et al.*, 1992). Managerial decisions are bounded by isomorphic pressures from the external environments (Greenwood & Hinings, 1996), and can create barriers to

change (Pettigrew *et al.*, 1992). Pettigrew *et al.* (1992) described the fit between change agenda and locale discusses the nature of locale, and how it impacts change implementation. For example, this factor discusses how the overall population of the locale impact the change implementation through employment change and other social drawbacks. These factors affect the rationale of decision making despite appears to be beyond the manager's control (Scott, 1995). Pettigrew *et al.* (1992; p.31) posited higher tiers of external environment shape organisation's change strategies and change implementation (e.g. boundary changes, removal of local authority and trade union representative). Coercive pressures set by the locale inhibit or impede organisation's to seek out certain strategic changes, which in turn affect their profit optimization (Oliver, 1997).

The seventh receptivity factor is co-operative inter-organisational networks, which refers to the productive relations of organisations with other related organisations in its external environment (Pettigrew *et al.*, 1992). These different groups can affect change implementation and attain influence from other networks to help expedite or inhibit change. Pettigrew *et al.* (1992; p.30) recommended a number of features that enrich these networks, such as "a system of financial incentives, clear referral and communications points, shared ideologies or history and the existence of boundary spanners who crossed agency dividers."

The eighth receptivity factor is effective managerial/clinical relations. Newton *et al.* (2003) further refined the definition as "manager's understanding of what clinicians value and clinicians thinking managerially." Pettigrew *et al.* (1992) argued that the nature of relationship between the various stakeholders is crucial in change implementation. Certain stakeholders can exert powerful blocks of change, and it is important to understand the implications of these blocks to change planning and implementation. This discussion is grounded in institutional theory on how various conflicts of interest or the protection of vested interests between groups in the organisation can affect the change implementation (Greenwood & Hinnings, 1996).

#### **2.6.2.2 Butler and Allen's (2008) ORC framework**

Butler (2003) applied Pettigrew *et al.*'s (1992) ORC theory to the local housing authority to explain variations in strategy implementation. In his work, he consolidated eight receptivity factors in Pettigrew *et al.*'s (1992) framework into four factors. The re-

analysis of Butler (2003) data led to the identification of a fifth receptivity factor in ORC framework (Butler & Allen, 2008). This section will discuss the five receptivity factors in greater detail. **Table 2.3** lists the five receptivity factors in Butler and Allen (2008) ORC framework.

***Table 2.3 Five Receptivity Factors in Butler (2003), and Butler and Allen (2008) ORC framework***



Source: Butler, (2003) and Butler and Allen (2008)

The first receptivity factor (RF1) in Butler (2003) is ideological vision. This factor encompasses three of Pettigrew *et al.*'s (1992) receptivity factors, which are: 1) the quality and coherence of policy, 2) simplicity and clarity of goals, and 3) supportive organisational culture. Butler (2003) referred ideological vision as “there being a strategic agenda, but recognised that agenda may arise from the interests of a definite group within the organisation.” It is a combination of two widely used analytical categories – ideology and vision. Vision refers to the “quality and coherence of policy,” and ideology is “the set of ideas which arise from a given set of material interests or, more broadly, for a definite group within an organisation” (Butler, 2003; p. 52). Vision may be shaped by a combination of managerial ideologies. Butler (2003) argued that all three dimensions from Pettigrew *et al.* (1992) reflected the role of vision and management ideologies as the main institutional context that shape the direction of strategic change

and change implementation. His discussions drew upon institutional theory, where he discussed how managerial ideologies shape the norms and social values which influence the organisation's attitude towards change (DiMaggio & Powell, 1983). Butler (2003) divided ideological vision into three elements which are: 1) quality and coherence of policy, 2) simplicity and clarity of goals, and 3) supportive organisational culture. This factor differs from any of the factors in OCC scale. The OCC scale does not incorporate the role of vision in creating change capability. However, in one of its dimensions, OCC includes one question (item) that refers to the articulation of an inspiring vision for the future as a tool top managers use to enhance change capabilities (Judge & Douglas, 2006). Furthermore, the dimension in OCC scale is more focused towards various human resource groups based on hierarchy, rather than the organisational contexts that shape the behaviours of various individuals or groups in the organisation.

The second factor (RF2) is leading change. This factor "locates decision making and analyses the action of the decision-makers" (Butler, 2003; p. 52). It addresses all discussions on "key people leading change" factor in Pettigrew *et al.*'s (1992) study. Drawing on Pettigrew *et al.* (1992) receptivity factor, leading change determines where the decision making is located, either top-down or otherwise. It analyses decision maker's action to see and locate where the decision is made, and if it involves every member of staff (Butler & Allen, 2008).

The third receptivity factor (RF3) is institutional politics. This factor is similar to Pettigrew *et al.*'s (1992) discussion on co-operative organisational networks. Deeply rooted in institutional theory, institutional politics factor analyses the formal and informal structures that affect change implementation (DiMaggio & Powell, 1983). Butler (2003) extended this factor to include internal politics between groups, and how these politics affect the change implementation. This factor further relates to various individuals or groups and the use of their power to protect self-interest, and steer the direction of change (Scott, 2010). The normative pressures asserted by these individuals contribute to institutional discourse that frames the decisions made relating to change (Scott, 2010). Institutional politics is dynamic because organisational networks can change. It is closely related to personnel change, where a new member of staff can change and adapt to the organisational structure and systems established and operated in an organisation. This factor contains two elements. The first element is Pettigrew *et al.*'s (1992) factor named

inter-organisational networks. It discusses the role of formal and informal network structures in change implementation. The second element assumes that these networks are dynamic and flexible to change in which the main mechanism of change relates closely to personnel change.

The fourth factor (RF4) is implementation capacity. It looks at the mechanism used by those leading change to shape and influence strategy implementation, and behaviours of other stakeholders in the organisational network (Butler, 2003). Butler (2003) explained that this factor consists of three elements. The first element is associated with organisation's locale, as discussed by Pettigrew *et al.* (1992), where local actors attempt to influence the change implementation. The second element discusses how local actors and those leading change mobilize their available skills and resources to influence change. Finally, the third element is similar to Pettigrew *et al.*'s (1992) discussion on the role of members of staff in change implementation. These three elements represent various institutional contexts as well as resource/capabilities that enable the change implementation. Butler (2003) drew upon Greenwood & Hinning's (1996) notion of "capacity for action" in the development of this factor, where he analysed the availability of skills and resources within the organisation and how the individuals/groups mobilise these resources.

In a study by Butler and Allen (2008), they re-analysed the data from Butler's (2003) study. They uncovered another receptivity factor (RF5), possibility space. The development of this receptivity factor is based on the complexity perspective to reveal emergent processes which suggested a second higher order change within organisations. The complex systems assume that both the organisation and change are associated with a biological process, and take on an evolutionary view of structure and organisations (Allen, 1997). Furthermore, Butler and Allen (2008) argued that possibility space is more organic and deeper, and as crucial as the other four receptivity factors. The resistance or ease of innovation within organisations depends on receptivity of organisation on the particular change that is presented (Butler & Allen, 2008). The development of possibility space is based on four key ideas around complex thinking (Allen *et al.*, 2005) which are no universal best practice, path dependency choice, and constituency. These four ideas form the sub-dimensions to represent possibility space.

Butler and Allen (2008) posited to combine path dependency and constituency due to similarities in ideas. Path dependency refers to the interaction of innovative (new) practices with existing practices to produce emergent attributes and capabilities. Whereas, constituency refers to the individual practices, capabilities, and performance levels that the organisations operate within. Constituency stresses on practices and capabilities that affect success of innovative practice. There are high similarities between the two sub-dimensions. Therefore, Butler and Allen (2008) argued that the first sub-dimension for possibility space is path dependency. Similar to institutional theory assumptions, path dependency also discusses issues relating to embeddedness of organisational practice.

The second sub-dimension of possibility space is no universal best practice, which refers to the idea that there may be no simple, single recipe for improving organisations as they differ in their receptivity. The third sub-dimension is choice, where it addresses the fact that there are infinite possibilities for patterns of interactions between practices. It is impossible to predict what will be adopted by an organisation.

The fourth sub-dimension for possibility space is organisational place. This refers to the organisation's need for spare capacity. This sub-dimension addresses the role of knowledge, learning and capacity building that are associated with higher organisational flexibility and adaptability (Mohrman *et al.*, 1995). Butler and Allen (2008) suggested that organisational play weighs up two factors; 1) learning from the past (path dependency) and anticipating the future (choice).

The discussion of the sub-dimensions in this fifth receptivity factor (possibility space) ties in closely with the Oliver (1997) discussion on how organisations can overcome institutional barriers to attain sustainable competitive advantage. Oliver (1997) asserts that one main source of economic rent is the speed in which new capabilities are embedded, and frequencies of them being re-evaluated and re-aligned. Butler and Allen (2008) claimed these sub-dimensions in turn make possibility space a dynamic capability that organisations use to achieve their strategic agenda and stay ahead of competitors.

### 2.6.3 Issues in the Theory of ORC

There are two issues to be addressed prior to applying ORC theory to RBV framework. First, there is no known measure for each receptivity factor in both ORC frameworks. Second, there are variations in type of receptivity factors found in Pettigrew *et al.* (1992) and Butler and Allen (2008), therefore suggesting different industries might have different receptivity factors.

The first issue is that there is no known measure for each receptivity factor. Most studies, apart from Jones (2002) used qualitative methods. However Jones (2002) adapted ORC theory to the concept of benchmarking. The development of each item is more reflective of benchmarking practices rather than the definition of receptivity factors developed by Pettigrew *et al.* (1992). Thus, all variables in Jones (2002) are no longer relevant to ORC theory. In an attempt to refine receptivity factors in Pettigrew *et al.*'s (1992) framework, Newton *et al.* (2003) formulated "focal questions" for each factor. Each factor was assigned codes to assist in qualitative analysis. These focal questions can guide for future research, however they are too general to be measured quantitatively.

The second issue is that there are variations in receptivity factors in the literature. Pettigrew and Whipp (1991) proposed five receptivity factors that play a role in determining how organisations manage and operate change. In subsequent study, Pettigrew and colleagues uncovered eight receptivity factors (Pettigrew *et al.*, 1992). Thus, Butler (2003) in his study consolidated Pettigrew *et al.*'s (1992) eight receptivity factors into four factors. Finally, Butler and Allen (2008) uncovered another receptivity factor not discovered by Pettigrew and Whipp (1991) and Pettigrew *et al.* (1992). All of the different findings suggested that there is likelihood for these factors to be context specific, and may not be relevant in different contexts. Furthermore, majority of studies chose public sector as their sample with exception of Pettigrew and Whipp (1991). Therefore, new research should take this into consideration when generating the items for each factor.

The next section will discuss how ORC theory combines institutional theory and RBV theory in order to explain sustainable competitive advantage.

#### **2.6.4 ORC Theory – Moving from the Outside-In Perspective to the Inside-Out Perspective**

Managers often have to make strategic decisions that are bounded by uncertainty, information limitations and heuristic biases (Oliver, 1997). Institutional theory assumes that the choices are non-rational, bounded by social judgement, historically limited and an inertial force of habit. Meanwhile, RBV assumes that decisions are systematic, deliberate and focused towards value-maximization (Amit & Shoemaker, 1993).

From the institutionalist perspective, resource decisions are vulnerable to economic sub-optimization because they are made in relation to institutional pressures that limit manager's willingness to acquire new resources, or to change their current resource portfolio (DiMaggio & Powell, 1991). The sub-optimization of resources often occurs when investment in current resources represents cognitive sunk cost, which is defined as the social and psychological costs associated with altering an organisation's habits and routines that prevent firms from seeking economically feasible alternatives (DiMaggio & Powell, 1991). These sunk costs led to manager's reluctance to re-assess their resource decisions, where core competencies embedded in the organisation culture and history can turn into "core rigidities" (Leonard-Barton, 1992). Teece (1998; p. 265) further argued that organisations have problems in changing their competencies because the "organisation's learning domain is defined in part by where it has been." When the environmental demands shift, these deeply rooted competencies can pose a serious challenge for the ability to attain sustainable competitive advantage (Oliver, 1997).

The main difference between institutional theory and RBV theory is how organisational outcomes are perceived. Institutional theory explains how and why organisations survive over time (Judge *et al.*, 2009), whilst RBV theory explains how and why organisations achieve competitive advantage (Newbert, 2007). Oliver (1997) explained that RBV theorist assumes managers make rational choices (economic rationality) bounded by uncertainty, information limitations, and heuristic biases, whilst institutional theorist assumes that managers commonly make irrational choices (normative rationality) bounded by social judgements, historical limitations, and the inertial force of habit.

Oliver (1997; p. 700) suggested RBV theory can complement institutional theory in explaining the existing social context within an organisation. She claimed that integration of both theories allows a more holistic understanding of how organisations move along

the homogeneity-heterogeneity continuum, allowing the organisations to achieve competitive advantage especially under high levels of environmental uncertainty. The two rationalities emphasize different choice constraints and inducements, where the economic rationality is value maximization whereas, the normative rationality is value-laden choice (Oliver, 1997). Organisations are often torn between the two choices, social conformity and legitimization or profit optimization (Oliver, 1997). To gain sustainable competitive advantage, organisations need to move along the continuum fast, thus allowing them to optimize the current environmental conditions. To achieve this, organisations need to possess the right institutional contexts and capabilities which allow them to change and adapt faster.

As discussed in the previous section, institutional theory was the theoretical lens in the development of ORC theory. Pettigrew *et al.* (1992) use the basic assumptions of institutional theory to explain why certain NHS trusts are resistant to change. While institutional theory provides an explanation as to which institutional contexts play a role in affecting the pace of change, it does not explain how organisations use these contexts to gain competitive advantage and become the industry leader. It does not explain how heterogeneity exists within an industry.

However, as the theory progressed, Newton *et al.* (2003) suggested using ORC framework as a tool for organisations implement strategic change. Managers can use the framework to identify receptive and non-receptive factors, which in turn allow them to either enhance the receptive factors, or mitigate the non-receptive factors. These factors are organisation capabilities that can be manipulated, integrated and coordinated to enhance their ability to change, thus, moving the theory from institutional theory base to RBV base.

Butler (2003) consolidated Pettigrew *et al.*'s (1992) receptivity factors to apply ORC theory to another research context. Butler and Allen (2008) suggested receptive factors can be considered as higher-order capabilities that organisations use to achieve intended strategic agendas. The continuous interactions between receptivity factors provide organisations with the ability to negotiate the fit between existing and new organisational practices. These factors allow the organisation to emphasize renewal of resources and capabilities (dynamic capabilities) in facing environmental change (Butler & Allen, 2008). The authors recognized that the factors are dynamic capabilities, thus higher levels

of receptivity factors increase the organisation's flexibility to change strategic direction to suit whichever need arises.

Institutional theory serves as the main theoretical perspective for the development of ORC, where each receptivity factor explains different aspects of rate and pace of change. However, as the theory progressed, it included high-level capabilities that shift ORC theory into RBV theory. The current study extends Butler and Allen's (2008) discussion on receptivity factors. This study posits that the four receptivity factors (ideological vision, leading change, institutional politics and implementation capacity) are grounded in institutional theory, whilst the final receptivity factor (possibility space) is grounded in RBV theory. This draws on Oliver's (1997) argument that institutional theory and RBV theory are complimentary, thus conjoining institutional theory with RBV theory provides a more holistic explanation of sustainable competitive advantage. This study proposes that all receptivity factors (either institutionally- or capability-based) play an integral role in enhancing organisation capability to adapt to rapidly changing environments, and allow continuously staying ahead of competitors.

ORC theory provides an explanation on how organisations are able to balance between the two types of rationality (economic and normative) as described by Oliver (1997). The existence of high receptivity factors suggests that the organisation is more flexible in balancing the two types of choices, allowing them to move along the homogeneity-heterogeneity continuum based on the current environmental pressures. It also allows organisation to optimise both types of capital (resource as well as institutional) as described by Oliver (1997). The optimization of both types of capital will enhance organisations' ability to attain sustainable competitive advantage.

## **2.7 CONCEPTUAL FRAMEWORK**

The discussion in the previous section provides the basis for the development of the conceptual framework for this study. The main theoretical contribution is to determine if ORC theory can be used to combine institutional and RBV theory. This is achieved by using ORC theory to explain how organisations move along the homogeneity-heterogeneity continuum based on environmental pressures at a point of time. This study will apply receptivity factors to RBV framework to determine if receptivity factors are

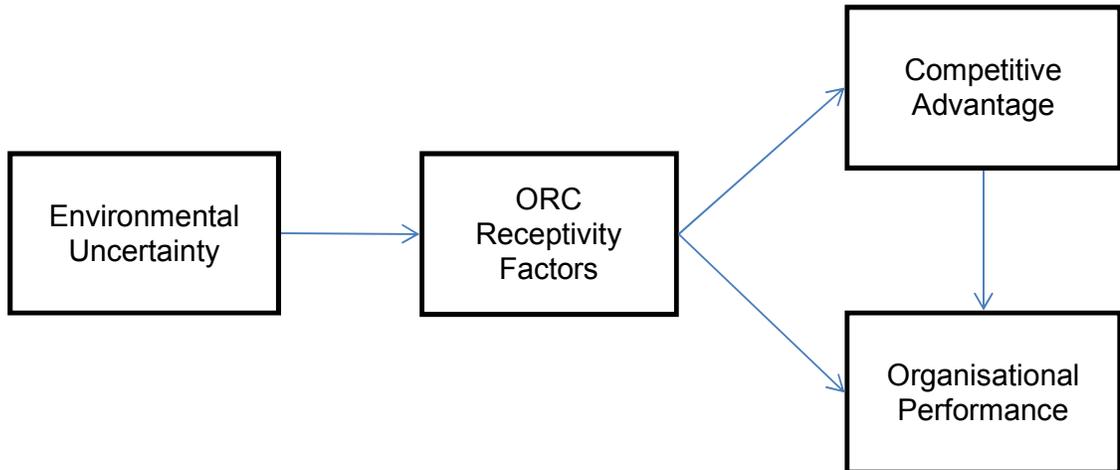
dynamic capabilities which allow organisations to balance between the need for legitimacy and need for profit optimization.

RBV theory focuses on an organisation's internal factors as the main explanation for organisation heterogeneity, and through which explains why an organisation succeeds or fails (Dicksen, 1996; Srivastava *et al.*, 2001). There are a few frameworks that have been empirically tested throughout the development of RBV theory. These frameworks emphasize the internal and intangible sources of an organisation's heterogeneity as a source of competitive advantage, and ultimately superior organisational performance. These frameworks involve a specific type of resource or capability, and its relationship to organisational performance (see Allered *et al.*, 2011; Combs & Ketchen, 1999; Henderson & Cockburn, 1994; Newbert, 2008; Westhead *et al.*, 2001). In these frameworks, organisational performance has been used interchangeably as organisation's competitive advantage, where the dependent construct is the variation of organisational performance. The hypothesis of competitive advantage dominates the theories of sustained superior organisational performance (Powell, 2001).

Literature on RBV has identified different types of organisational resources, capabilities and core competencies as the independent constructs in the framework (see Allered *et al.*, 2011; Combs & Ketchen, 1999; Henderson & Cockburn, 1994; Newbert, 2008; Westhead *et al.*, 2001). Some literature defined competitive advantage as a separate construct in RBV framework, where competitive advantage is a mediating construct between different types of resources and capabilities with organisational performance (Henderson & Cockburn, 1994; Newbert, 2008).

Meanwhile, ORC theory has always been discussed in relation to its connection to the external environment (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003). Butler and Allen (2008) especially assert that receptivity factors are second higher-order or dynamic capabilities that allow organisations to adapt to changing environmental conditions. Therefore, receptivity factors and competitive advantage are both mediating constructs between environmental uncertainty and organisational performance. **Figure 2.5** below illustrates the conceptual framework for the current study. The following sections will discuss each construct and the relationship between constructs in the framework.

**Figure 2.5 Conceptual Framework**



### **2.7.1 External Environment and Receptivity Factors**

The independent construct for the framework is the external environment. The organisation’s external environment is defined as the “totality of physical and social factors that are taken directly into considerations in the decision-making behaviour of individuals in organisations” (Duncan, 1972; p. 314). The external environment that affects organisations usually consists of customers, competitors, governments and other stakeholders.

For more than two decades, various researchers in the hospitality industry have noted the importance of external environments (Awang *et al.*, 2008; Olsen, 1999; Slattery & Olsen, 1984). The hospitality industry is described as turbulent, dynamic, and complex, where it influenced organisational processes, structure and strategic decisions (Harrington & Kendall, 2005; Okumus, 2002). Researchers posit that organisations have to co-align their internal processes with the external environment (Awang *et al.*, 2008; Okumus, 2002; Olsen, 1999).

There are overlaps in the definitions of external environment. Harrington and Kendall (2005) claimed both general business and hospitality literature failed to “consistently define the differences in assessing environmental uncertainty, dynamism and complexity.” They further highlighted the many variations in the external environment construct in the literature. The literature has employed different business dimensions to test the relationship between external environment and different organisation variables. It

divides the external environment into smaller constructs and uses only a sub-set of external environment in most research. For example, Wang and Ahmed (2007) and Teece *et al.* (1997) focused only on environmental dynamism. Eisenhardt (1989) combined two external environment constructs – dynamism and complexity, as one single construct which he named environmental uncertainty. Other external environment constructs are environmental stability (Emery & Trist, 1965; Loada & Calantone, 1997), environmental dynamism (Burgeois, 1980; Dess & Beard, 1984; Duncan, 1972; Harrington & Kendall, 2005; Harrington *et al.*, 2004; Jurkovich, 1974; Teece *et al.*, 1997; Wang & Ahmed, 2007), environmental complexity (Dess & Beard, 1984; Duncan, 1972; Harrington & Kendall, 2005; Harrington *et al.*, 2004; Lozada & Calantone, 1997); and environmental munificence (Dess & Beard, 1984).

On the other hand, Jogaratnam and Wong (2009) proposed two main conceptions of external environment. The first is environmental uncertainty, which relates to the flow of information that is perceived by managers. The second views the environment as a stock of resources that is made available for organisations (Jogaratnam & Wong, 2009).

Linkages between external environment and receptivity factors have been identified in ORC literature, where environmental conditions have been found to place downward pressure onto an organisation to instigate change (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992). Environmental uncertainty is often related to the level of uncertainty in the manager's capability to react (Jogaratnam & Wong, 2009). Jogaratnam and Wong (2009) further argued that high levels of environmental uncertainty make it difficult for managers to identify which changes in the environment to react to. It can also affect a manager's inability to make changes to strategy, structure, and process in response to environmental demands, thus resulting in less than average performance (Jogaratnam & Wong, 2009; p. 48).

Moreover, Butler (2003) asserted there is a dynamic interconnection between organisation receptivity with external environment, and each influence the other in various ways. The environment places downward pressure on the organisation to act and the organisations place upward pressure for the environment to react to its actions (Butler, 2003). Furthermore, Newton *et al.* (2003) found that change initiated by an invitation from government did not create pressure for the organisation to implement any new method. These two studies have demonstrated that the external environment provides the

incentive for organisation to change. The level of changes within the external environment will have an impact on the organisation need to be more adaptive and flexible. Organisations need to be highly receptive to change in order to respond faster to environmental demands (Wang & Ahmed, 2007).

Therefore, it is hypothesized that the level of environmental uncertainty will have a positive relationship with the level of receptivity within an organisation. Thus, high levels of perceived environmental uncertainty lead to higher levels of receptivity to change.

**Hypothesis 1: Higher levels of perceived environmental uncertainty will lead to higher levels of receptivity factors.**

### **2.7.2 Receptivity Factors and Competitive Advantage**

In RBV theory, the concept of competitive advantage is a mediating variable between various unique resource, capabilities, core competencies and organisational performance (Newbert, 2008; Powell, 2001). A large volume of scholarly output has attempted to analyse the relationship between these constructs (Powell, 2001).

Henderson and Cockburn (1994) identified other variables as competitive advantage. They are: 1) amount of patents obtained by the company, and 2) number of global research managed by organisations. Yeoh and Roth (1999) examined two different organisational capabilities relating to the production and marketing of drugs as a source of competitive advantage for organisations in the pharmaceutical industry. Yet, Newbert (2008) argued that researchers should not treat organisational performance as a competitive advantage construct in their research. He supported Powell's (2001) assertion that the two constructs are conceptually distinct and should be separated. Newbert (2008) further suggested that competitive advantage has to create value for the organisation. This economic value is created by "producing products or services with generate greater benefits at the same cost compared to competitors" (i.e. differentiation-based competitive advantage) (Newbert, 2008; p.749). To attain either source of competitive advantage, the organisation has to exploit combinations of resource-capabilities to improve performance. The best performing organisations can deploy the combinations which result in "reduction of costs, exploitation of market opportunities, and neutralization of environmental threats" (Newbert, 2008; p. 750). Newbert (2008; p. 750) operationalized competitive advantage construct as the "exploitation of the

organisation's financial, human, intellectual, organisational, or physical resource-capability combinations." Therefore, highly receptive factors to change will contribute to the attainment of competitive advantage.

**Hypothesis 2: Higher levels of receptivity towards change will lead to higher level of competitive advantage in the organisation.**

### **2.7.3 Receptivity, Competitive Advantage, and Organisational Performance**

Organisational performance has always been a dependent variable in a majority of the management literature (Haktanir & Harris, 2005; Harris & Mongiello, 2001; Phillips, 1999). Numerous theories have been used to explain how organisations attain higher levels of performance as compared to competitors. Despite the fact that performance levels have always been a major concern, researchers and managers alike debated the best measurement for performance. The right performance measurement is crucial since it enables organisations to effectively meet changing demands and the challenges within their competitive environment (Atkinson & Brown, 2001).

In RBV framework, advantages are attained through resources and capabilities that are difficult for competitors to imitate or purchase (Barney, 1991). The possession and exploitation of these resources allow an organisation to achieve sustainable competitive advantage, which in turn enhances its organisational performance (Barney, 1991). In this framework, there is a direct link between strategic resources and performance (Combs & Ketchen, 1999).

Meanwhile, Haktanir and Harris (2005; p. 39) state that performance measurement is a "contextually defined phenomenon." They claimed there are limited detailed studies on performance measurement practices in service businesses in general, and the hospitality industry in particular. According to Newbert (2008), three measures of performance are used regularly in strategy literature: 1) subjective non-financial performance, 2) subjective financial performance, and 3) objective financial performance. Objective financial performance is usually obtained via secondary data.

Pettigrew (1992) claimed it is important for future research on organisational change to study the relationship between change contexts and capabilities with organisational performance. ORC theory discusses how organisations can enhance organisational

performance by having the right organisational contexts which allow organisations to expedite change in response to external environmental demands (Butler, 2003; Butler & Allen, 2008). Thus, this study proposes that there is a positive relationship between receptivity factors and organisational performance.

**Hypothesis 3: The higher the level of receptivity towards change will lead to higher levels of organisational performance.**

Competitive advantage and organisational performance have been acknowledged as two conceptually distinct constructs, but the majority of the researches in RBV and competitive advantage have used these two phenomena interchangeably (Newbert, 2008; Powell, 2001). Organisational performance is achieved when competitive advantage has created economic value for the organisation (Peteraf & Barney, 2003).

Furthermore, Newbert (2008) argued that from an empirical standpoint, competitive advantage and organisational performance are not equivalent to each other. First, there are many other organisational factors that have been found to have a significant effect on performance. Second, the implementation, integration and combination of resources might not attain the level of performance required to cover the cost to create and exploit the strategy (Newbert, 2008).

Findings from Newbert *et al.* (2007) suggested that seventy six per cent of studies have tested the relationship between various types of resources or capabilities against organisational performance, and not competitive advantage. Majority used organisational performance as an indicator for competitive advantage, where performance has been used as the dependent construct without a competitive advantage construct in the framework. Thus, Newbert (2008) and Powell (2001) argued that the two constructs be kept separate and the direction of relationship between the two is unidirectional, that competitive advantage leads to increased performance and not otherwise. This view leads to the next hypothesis.

**Hypothesis 4: When the organisation achieves competitive advantage, it will also attain higher levels of organisational performance.**

## **2.8 CONCLUSION**

The purpose of this chapter was to provide greater insight to the theories that are relevant to this study. It is important to understand the theoretical underpinnings of this research as it serves as a basic understanding of how ORC theory has developed over time. Furthermore, the theoretical underpinnings form the basis for the development of each receptivity factor as well as the development of the conceptual framework. The next chapter will discuss the methodological underpinnings of this study.

# Chapter 3

## Research Design

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### **3.1 INTRODUCTION**

The purpose of this chapter is to present the methodology used to achieve the research objectives. Specifically, this chapter addresses the issues relating to the availability of a scale to measure receptivity factors and hypothesis testing.

The first issue is the development of a scale to measure each receptivity factor. As discussed in chapter 2, much of the empirical research on the theory relied on qualitative research methods. Therefore, there is no well-developed and validated scale to measure organisational receptivity towards change (ORC).

Second, by addressing this limitation, this chapter addresses methodology involved in scale development. The methodology of developing a valid and robust scale is crucial, since it can impede the predictive value of a scale (Hinkin, 1995). Thus, a valid and reliable scale will allow hypothesis testing.

### **3.2 PHILOSOPHICAL STANCE**

The debate on the nature and philosophy of research in the social sciences revolves around two main research paradigms; positivist and interpretivist. Understanding the ontological and epistemological orientations help the researchers determine their personal paradigm (Guba & Lincoln, 1994).

The positivist sees reality and an organised method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic cause law, where it can be used to predict general pattern of human activity (Neuman, 2003). The interpretivist views reality as “subjective and multiple as seen by participants in a study” (Cresswell, 1994; p. 5). It perceives the world as constructed, interpreted and experienced by people in their interaction with each other and with wider social systems (Guba & Lincoln, 1985).

The determination of a research paradigm influences the methodological decisions which frame the research. The positivist paradigm is seen to predominantly engage in

quantitative methods where theories and hypotheses on natural phenomenon are tested through the use of connections between empirical observations, mathematical and statistical expressions (Cresswell *et al.*, 2002). The interpretivist paradigm normally engages in qualitative methods as a way of providing in-depth appreciation of a particular phenomenon (Newman *et al.*, 2003).

The battle over the apparent division between the two paradigms resulted in the emergence of a new paradigm; pragmatism paradigm (Tashakkori & Teddlie, 1998). This paradigm uses mixed methods in its research enquiry (Johnson & Onwuegbuzie, 2004; Johnson *et al.*, 2007). It is a “practical and outcome-oriented method of inquiry based on action and leads, iteratively, to further action and elimination of doubt” (Johnson & Onwuegbuzie, 2004; p. 17). What is important to this paradigm is what works in practice. The driver of method selection is the research question (Miles & Huberman, 1984) where complex nature of the research necessitates the use of mixed methods (Newman *et al.*, 2003).

Newman and Benz (1998) developed a qualitative-quantitative interactive research continuum that emphasizes four major principles: 1) research questions dictates the selection of methods, 2) assurance of “validity” of research – both measurement validity and design validity – is central to the study, 3) interactive continuum model is built around the place of “theory”, 4) consistency between questions and design.

A combination of the two methods is possible when both approaches share the same goals of understanding reality and share the same tenets on the theory as well as the inquiry process (Sale *et al.*, 2002). Another justification suggested by Sale *et al.* (2002) is the complexity of the phenomenon requires a multiple perspective to answer the research question.

### **3.3 PHILOSOPHICAL VIEWS IN ORGANISATIONAL CHANGE THEORIES**

Research on organisational change employed various paradigms to study the change phenomenon in organisations. Those who seek to test the veracity of theories and metaphors of change utilize the positivist approach (see Judge & Elenkov, 2005; Judge *et al.*, 2006; Judge *et al.*, 2009) whilst others use the interpretivist approach to help

understand the importance of change and the change process (see Butler, 2003; Butler & Allen, 2008; Pettigrew *et al.*, 1992).

The ontological differences stem from the research assumptions of the organisation. Positivist assumes organisations as a noun or a thing, where studies divide the organisation into different variables (see Judge *et al.*, 2006; Jones, 2002). Interpretivist assumes organisations as a temporal order, which consist of change events that occurred based on a story or a historical narrative (Abbott, 1998).

The positivist studies seek to explain and confirm theories through the use of deterministic causations between various organisational constructs that capture the change process (i.e. rate of change, complexity of change, mode of structuration, etc) (Van de Ven & Poole, 2005). The strength of this approach: 1) provides a good picture of the mechanisms that drives the change process, 2) allows analysis of multiple levels (see Jones, 2002; Rothaermel & Hess, 2007), and 3) understands the phenomenon at an aggregate level.

The interpretivist approach allows the researcher to answer questions relating to the ‘how’ and ‘why’ of change (Pettigrew, 1992) and the dynamics of change (Chakravarthy & Doz, 1992). It allows a deeper understanding of the historical perspectives, the contexts of change and the political and power issues related to the change process (Pettigrew, 1992).

Van de Ven and Poole (2005) posit that the two paradigms complement each other, where each provides a different practical understanding on organisational change. The strength of the mixed method approach “enables the researcher to simultaneously answer confirmatory and exploratory questions, therefore verify and generate theory in the same study” (Teddlie & Tashakkori, 2003; p. 15). Using mixed method allows researchers to offset the disadvantages of one method with the use of the other (Johnson & Turner, 2003).

The use of mixed method has become increasingly accepted as the third option for research methods (Miles & Huberman, 1984; Teddlie & Tashakkori, 2003). Teddlie and Tashakkori (2003) come up with various typologies and mixed methods research designs to help guide future research to increase the validity and robustness of their mixed method research. The combination of methods is dependent on whether the researcher intends to

operate largely within one paradigm or to conduct the methods concurrently or sequentially (Johnson & Ownuegbuzie, 2004). Cresswell *et al.* (2003) contend that the two-phased approach is easier to implement and straightforward to describe and report. Furthermore the use of sequential mixed method research design provides a clear separation of data collection and analysis strategies.

The data collection and analysis strategies differ according to methods. Quantitative methods use probability sampling, where a selection of a large number of units from the population is selected chosen at random (Tashakkori & Teddlie, 2003a). On the other hand, qualitative method uses purposive sampling where samples selection is deliberate based on the information that they provide that cannot be gotten from other choices (Maxwell, 1997). The sequential mixed method approach allows the combination of the two sampling methods that complement each other, where each sample would provide depth and breadth regarding the phenomenon of the study (Teddlie & Yu, 2007). Therefore, this approach is useful for researchers who intend to explore a phenomenon and expand on the qualitative findings.

### **3.4 PHILOSOPHICAL AND METHODOLOGICAL JUSTIFICATIONS**

The determination of the study's ontological and epistemological underpinnings is dependent on 1) objective of the research enquiry (Newman *et al.*, 2003) and 2) research design (Morse, 2003). An important consideration is the establishment of a clear distinction between the two paradigms. Next is to clearly label and structure the research design to ensure the use of each paradigm's strengths to overcome the other's weaknesses (Sale *et al.*, 2002). This would ensure the findings are valid, relevant and able to contribute towards theoretical development.

This study adopts the pragmatic paradigm, which is a practical and outcome-oriented method of enquiry (Johnson & Onwuegbuzie, 2004). The study will employ a mixed method research design, specifically the design that was recommended by Hinkin (1995). The research design will be used to develop a scale for a particular phenomenon.

This study will first use qualitative research methods where interviews will be conducted to identify relevancy of the receptivity factors to the hospitality industry and to uncover new receptivity factors unique to the industry. The use of qualitative methods is recommended in the early stages of scale development when there is no or limited

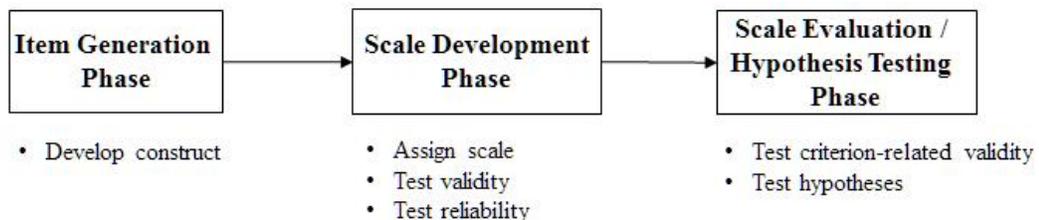
quantitative empirical study the phenomenon (Edmonson & McManus, 2007; Hinkin, 1995). It should be noted content analysis will be done for all interviews. The use of content analysis could fall under both positivist and interpretivist paradigms (Morgan, 1998), and studies after interviews will lean more towards the positivist paradigm, which is the similar approach taken for the second and third phases of scale development. Furthermore, this study will use quantitative methods to develop and evaluate the new ORC scale. The next section describes the scale development process (research design) in greater detail.

### 3.5 SCALE DEVELOPMENT RESEARCH DESIGN

The development of a scale is often complex and time consuming (Schmitt & Klimoski, 1991). One main issue in scale development revolves around the reliability and validity of the scales (Hinkin, 1995). This leads to contradictory findings between researchers, difficulty in interpreting results and inability to draw a conclusion from findings (Hinkin, 1995).

American Psychological Association (1995) proposed that a psychometric measure for any phenomenon must demonstrate content validity, criterion-related validity, construct validity and internal consistency. To achieve this, Hinkin (1995) recommended the three-phase scale development process; 1) item generation, 2) scale development, and 3) scale evaluation. This process will be adopted by this study to develop the scale for the five receptivity factors. **Figure 3.1** illustrates the sequence of the three phases.

**Figure 3.1 Scale Development Research Design**



This process follows a sequence of data collection and analysis, where each phase addresses different issues relating to the development and evaluation of a scale. The item generation phase is the first phase in the process. The purpose of this phase is to develop a list of items that measures each receptivity factor. Once the items have been developed,

the items would then be tested for content adequacy and face validity (Creswell, 2003; Hinkin, 1995).

The remaining items will then be evaluated in the second phase, scale development. In this phase, all the items will be included in a questionnaire and distributed to a set of sample. The purpose of this phase is to determine the construct (convergent and discriminant) validity and reliability (Hinkin, 1995). Items that demonstrate poor validity and reliability will be eliminated from the scale.

The refined list of items then undergoes another set of evaluations through the use of another sample in phase 3 (scale evaluation). The purpose of this phase is to re-analyse the construct validity and reliability. Other methods of scale evaluation are model evaluations and hypothesis testing. The next section addresses the research design, where each of the phases will be discussed in greater length.

### **3.6 RESEARCH DESIGN**

As discussed in the previous section, this study will adopt the scale development process that was suggested by Hinkin (1995). In this section, this chapter will discuss the issues relating to: 1) data collection strategies (sampling procedures and sample) and 2) data analysis strategies.

This study will use the sequential qualitative-quantitative research design (Teddlie & Tashakkori, 2003). The qualitative methods will be used in the item generation phase, where semi-structured interviews will be conducted to attain information relating to the relevance of the receptivity factors and identification of unique industry factors (see Nastasi *et al.*, 2007). The qualitative part component will be used to validate the measure and analyse the applicability of the measure in the research context (Nastasi *et al.*, 2007).

The next second and third two phases (phase 2 and 3) will use the quantitative methods to develop and evaluate the scale for the five receptivity factors. The quantitative methods will ensure that each item achieves high levels of validity and reliability.

One of the major considerations in using a mixed method research design is the balancing of various data collection (sample and sampling issues) and analysis issues between the three phases. **Figure 3.2** summarizes all the data collection and analysis strategies for this study adopted from Dwivedi *et al.*, (2006) and Hinkin (1995).

The next few sections will discuss data collection and analysis strategies for each of the phases. The main concern in the discussion is the assurance of robustness in the strategies to ensure a high level of validity and reliability.

**Figure 3.2 This Study's Research Design**

<b>PHASE 1: ITEM GENERATION</b>	
Step 1: Literature Review	Literature on Organisational Receptivity towards Change Output: Semi Structured Questions
Step 2: Semi Structured Interviews	<b>Sampling Procedure:</b> Purposive sampling <b>Sample:</b> Hotel Managers <b>Purpose:</b> 1) To select the right items to measure each of the receptivity factors, 2) To determine the content Adequacy of each newly generated item <b>Data Analysis:</b> Nvivo Content Analysis
Step 3: Expert Judges	<b>Sampling Procedure:</b> Purposive sampling <b>Sample:</b> 1) Academicians knowledgeable in theories linked to Receptivity, Strategic Management, Strategic Change, Hospitality Industry; 2) Members of the transformation project. <b>Purpose:</b> 1) To determine the relevance of operationalizing each of the measures, 2) to determine if the items in the survey reflect the theoretical definitions, 3) to determine if items are comprehensible to respondents, 4) to remove ambiguous, redundant and unrelated items. The final items should demonstrate high face validity. <b>Data Analysis:</b> Delete items if 80% of the judges evaluate the item as not representative.

<b>PHASE 2: SCALE DEVELOPMENT</b>	
Step 1: Scale Construction Step 2: Scale Development Step 3: Scale Evaluations	<b>All three steps are analyzed using the same sample set. The sample is split into two to be analyzed separately in step 2 and 3.</b> <b>Sampling Procedure:</b> Random Sampling <b>Sample:</b> 1) MBA and Postgraduate Students & 2) Employees from public and private sector in Malaysia <b>Issues in Sampling:</b> Student Sampling <b>Purpose:</b> 1) to examine the degree to which the operationalization of each measure is similar to other measure that are theoretically similar or dissimilar, 2) to determine if each item demonstrates acceptable levels of internal consistency, convergent validity, discriminant validity and nomological validity, 3) to determine the performance of each item in relation to other construct. <b>Data Analysis:</b> EFA, CFA and SEM.

## PHASE 3: SCALE EVALUATIONS

Step 1: Scale Evaluations

Step 2: Hypothesis Testing

**Sampling Procedure:** Random Sampling

**Sample:** Managers, Assistant Managers and Supervisors in Hotel industry

**Purpose:** 1) To re-test for convergent and discriminant validity and nomological validity, 2) to determine the applicability of the framework in another research context, 3) Hypothesis testing

**Data Analysis:** EFA and CFA, SEM

### 3.7 PHASE 1 – ITEM GENERATION

The first phase in the scale development process is item generation. The primary objective of this phase is the generation of items that measure each of the five receptivity factors and to determine the content adequacy and face validity of each item (DeVellis, 2003).

This phase is divided into three steps; 1) literature review, 2) semi-structured questionnaire and 3) expert judge. The purpose of the first two steps is to generate a list of items for each factor and the purpose of the third step is to determine each item's content adequacy and face validity. The next few sub-sections will discuss each of the steps in greater detail.

#### 3.7.1 Step 1 – Literature Review

This study will be adopting the deductive method to generate the list of items for the five receptivity factors. The deductive method uses a “classification of schema or typology prior to data collection ... which requires an understanding of the phenomenon being investigated and a thorough review of the literature to develop the theoretical definition of the construct under examination” (Hinkin, 1995). The development of the items is based on the ORC theoretical framework discussed in previous chapter 2.

The first issue in the deductive method in item generation is the selection of literature to be analysed. David and Han (2004) developed a structured process to assess the literature. The main objective of this process is to help mitigate bias from subjective sample selection by the researcher. This method differs from the traditional narrative review where it is more systematic and explicit in literature selection and employs a more quantitative method of evaluations.

David and Han (2004) supported the use of the ABI/Inform and EconLit because it covers 1300 journals and magazines published in English from all around the world. **Table 3.1** summarises the criteria set by David and Han (2004).

***Table 3.1 Criteria for Literature Review***



Source: David and Han (2004)

However, not all criteria set by David and Han (2004) relates to this study. Some adaptations were made to further enhance the literature selection. First, this study included the book that was written by Pettigrew *et al.* (1992). David and Han (2004) argued that researchers should not include books and only use journal articles. However, this study decided to include the book mainly because the book was an elaboration of the discussion of the ORC theory from the journal article published by the same author in the same year.

The second adaptation is this study did not limit the literature selection to the use of 'substantive keyword search'. The main keyword, receptivity to change, was not used in two other articles that were included in this study. Although the articles did not use the terminology, both are closely linked to the ORC theory.

The literatures was then compiled and reviewed to determine which receptivity factors would be used in this study (Churchill, 1979). The review of the literature would then be used to refine the theoretical definition of each of the factors and semi-structured questions were developed to delve into each factor. The next section will discuss the finding from the semi-structured questions.

### **3.7.2 Step 2 – Semi-Structured Interviews**

The list of semi-structured questions will be used to interview hotel managers. The list of semi-structured questions will identify the dimensions in each of the factors, determine the relevancy of the factors to the hospitality industry and uncover unique receptivity factor in the industry (Nastasi *et al.*, 2007).

As discussed in chapter 2, majority of the literature on ORC are focused towards the public sector, and none have analysed the role of these factors in the hospitality industry. Therefore, prior to generating items for each of the factor, it is important to determine the relevancy of the factors to the industry.

#### **3.7.2.1 Data Collection Strategy**

The main concern for data collection is the justification of context selection. This study will concentrate on the hospitality industry. Based on discussions in chapter 1, this study has identified that the hospitality industry is faced with highly turbulent, dynamic and uncertain environmental conditions (Ishak & Ghazali, 2004; Awang *et al.*, 2008). These environmental conditions have made the capacity and capability to adapt an important source of competitive advantage and superior organisational performance. Therefore, this industry serves as a good sample to study the applicability of the receptivity factors in the RBV framework.

This study will adopt purposive sampling technique, where selection of companies is based on understanding of the research problem and the role of receptivity factors on performance (Cresswell, 2007).

Interviews will be conducted with hotel managers from United Kingdom (UK) and Malaysia. Majority of the studies on ORC have been conducted in the UK, therefore, it is important to select sample which incorporates respondents from Malaysia. The sample in UK is mainly used to identify the relevancy of receptivity factors and identification of

new factors, whilst the sample in Malaysia is used to address all the issues discussed above. The interviews from the two countries will also allow better comparisons between existing literature and findings.

Each interview will be approximately one hour in length. Due to privacy and confidentiality issues, the respondents have the right to refuse to be recorded and if so, answers will have to be written and checked by each of the respondents after the interview.

### **3.7.2.2 Analysis Strategy – Content Analysis**

The researcher will transcribe all the interviews and analysis of the transcripts will be carried out using content analysis. Content analysis is an “observational research method that is used to systematically evaluate the symbolic content of all forms of recorded communications” (Kolbe & Burnett, 1991; p. 243). It includes the quantification of the analysis where the researcher has the opportunity to measure the extent of emphasis of each research theme with standardized measurements (Manning & Cullum-Swan, 1994).

This study will be using the NUD\*IST Vivo 7 (NVIVO 7) software to analyse the transcripts. The software allows researchers to import and code textual data, edit text, retrieve, review, and recode the coded data (Gibbs, 2002). The use of this software will enhance the transparency and reliability of the analysis. It also provides a more structured approach to analyse the interviews.

The analysis will start with the development of a coding sheet. Coding is a process to label parts of data and sort the data into distinct categories (Strauss, 1987). The coders are confined to the ORC theoretical framework that was developed in previous literature (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992). This is to ensure that there is consistency between literature and findings. However, as the analysis proceeds, there might be additional codes created due to the identification of other explanations of the five receptivity factors and any new receptivity factors.

Next, all codes will be entered into NVIVO as nodes. The coders will match and apply various data collected to the existing nodes. If a new theme emerges, the coders will then create a new node for a new factor. Attributes will be assigned to each document and are based on the demographic profile of the respondents and the hotels.

Main issues in the analysis are the objectivity and reliability of the coding process. Objectivity is associated with the process of developing analytical categories and is demonstrated through five elements (Kolbe & Burnett, 1991); 1) rules, 2) judge training, 3) measure pretesting, 4) judges and researchers performing coding independently, and 5) judges perform coding independently.

Provision of operational definition for each of the categories is crucial to address the mentioned requirements. These definitions assist the coders in implementing their task more efficiently and objectively. It also removes vagueness from the categories and measures.

The next emphasis is the reliability of the coding. The reliability for content analysis is termed as inter-coder reliability, where it involves the quantification of the agreement between coders. It is calculated based on the coding that was conducted individually. Higher inter-coder reliability illustrates that there is convergence in coding of the data and the categories that emerge from the data are reliable.

Miles and Huberman (1994) recommended that the two coders have to code the data independently to ensure reliability. Cohen's Kappa is an index that has been commonly used to measure the inter-coder reliability for categorical data (Cohen, 1960). This study has also piloted one of the interviews to ensure that both coders understand the definitions, dimensions, and sub-dimension. The statistics indicate that if the  $k=1$ , there is a complete agreement between coders, and if the  $k = 0$  then there is no agreement between the coders. The Kappa level has to be above .70 to be considered as reliable (Cohen, 1960).

### **3.7.2.3 Item Pool Generation Outcome**

The final outcome of this step is a list of items that measures each of the receptivity factors separately. This is achieved through a systematic comparison between the literature and findings. Once the list of items is generated, the items have to undergo rigorous analysis using various methods to ensure that each item accurately measures each of the receptivity factors. The analysis of the newly developed item will be discussed in the next section.

### **3.7.3 Step 3 – Expert Judge: Content Adequacy and Face Validity**

The final step is the analysis of the content adequacy and face validity of the newly developed scales. The analysis is conducted by expert judges (Churchill, 1979). One of the methods used by researchers in developing scales is through the use of expert judge (DeVellis, 2003; Hardesty & Bearden, 2004).

The first analysis is the determination of each item's face validity, which is defined as "reflecting the extent to which a measure reflects what it is intended to measure" (Hardesty & Bearden, 2004). The second type of validity is content adequacy, where it refers to the "degree to which a measure's items represent a proper sample of theoretical content domain of a construct" (Hardesty & Bearden, 2004).

Low content adequacy means that the content of the measures is not theoretically adequate and the measure cannot be a valid operational procedure for measuring a particular construct (Nunnally, 1978; Schwab, 1980). Hinkin and Tracey (1999) asserted that without an accurate measurement, even the most advanced statistical techniques would not allow the researcher to draw appropriate conclusions.

There are two methods used to determine content adequacy. One is expert judge and the other is statistical data reduction approach (Hinkin, 1995). This study adopts both methods. The expert judge will be used first in phase one and the statistical data reduction approach (factor analysis) in phase 2 and 3.

The expert judge method has been recommended to be the first method because expert judges have extensive knowledge on the theoretical underpinnings of the phenomenon and provide a better evaluation on the relevancy of the items to the theoretical definition of each factor (Hardesty & Bearden, 2004). On the other hand, data reduction approach specifically factor analysis is an appropriate analytical tool to identify the construct validity rather than content adequacy. Factor analysis approach will indicate if the items are perceived to reflect the same theoretical factor, but it does not determine what the factor is (Scherriesheim *et al.*, 1993).

Hardesty and Bearden (2004) discussed two expert judge methodologies commonly used in literature 1) rating of items based on the relevancy of items to theoretical definition (Zaichkowsky, 1985) and 2) assignment of items to an overall construct definition

(Scherriesheim *et al.*, 1993). This study adopts the method recommended by Zaichkowsky (1985) for the expert judge research design, where the process will be divided into three stages. The three stages will enhance the robustness of the item evaluation to attain an exhaustive list of items that reflects and measures the five receptivity factors.

One of the key considerations in expert judge research design is always the sample selection. The main criterion in judge selection is the extent of knowledge an individual has on the construct or theories relating to the conceptual framework (O'Brien *et al.*, 1997). This study has selected individuals with knowledge on either change theories or hospitality industry.

Another consideration in expert judge research is the number of judges required to evaluate the items. Obermiller and Spangenberg (1998) claimed that the minimum number of judges should be three persons. This study has selected a total of twelve judges for the whole expert judge process. The next section will discuss each of the three stages individually.

### **3.7.3.1 Expert Judge Research Design**

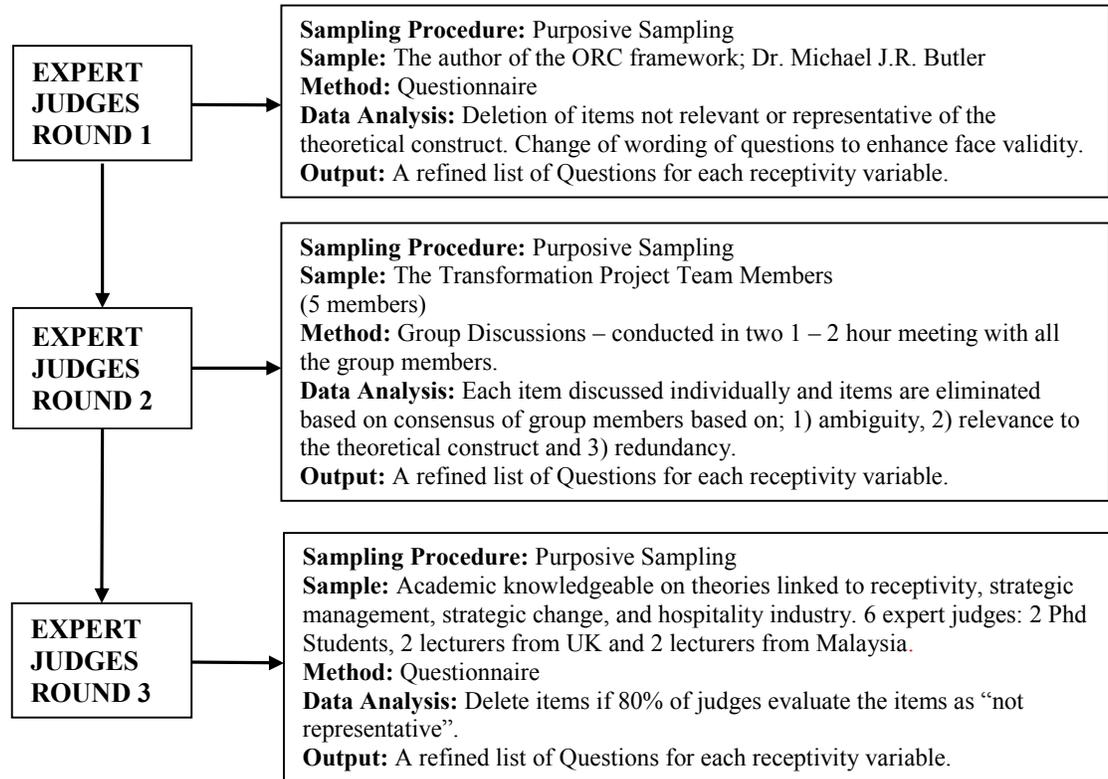
This section outlines the expert judge research design. The expert judge process is divided into three stages. Each stage has different data collection and analysis strategies, where outcomes from previous stage are brought into the next stage. This will ensure that the final items retained are robust and achieved a high level of content adequacy. **Figure 3.3** illustrates and summarises each of the stages.

The purpose of the first phase is to ensure that each item is consistent and relevant to the theoretical definition of each receptivity factors in Butler (2003) and Butler and Allen's (2008) ORC framework. Items are evaluated on the following criteria; 1) representativeness to the theoretical definition, 2) relevance, 3) specificity, and 4) clarity of the sentence.

Dr. Michael J.R. Butler, the author of the above mentioned journal article, individually analysed each of the items generated by this study. He is selected to evaluate the items because he was the person that who operationalized and defined the five receptivity factors and created the theoretical definition for each item. This stage ensures that the

items fit into his theoretical conception of each factor. All items that do not fit the criteria mentioned above will be removed from the scale.

**Figure 3.3 Expert Judge Research Design**



The newly refined scale will then be vetted again by a second set of expert judges in the second stage of the expert judge process. The methodology is used by Mesmer-Magnus *et al.* (2010), where items are evaluated through open discussions among the expert judges.

The expert judge in this stage comprises five members of the TRANSFORMATION Project. The TRANSFORMATION Project is a research group that is funded by the Economic and Research Council (ESRC), United Kingdom grant. The group is headed by Dr. Michael J.R. Butler to assist organisations enhance their ability to change. This group consists of academicians, practitioners and PhD students. Five of the team members are given a list of items and the theoretical definition of the five receptivity factors. They evaluate each item based on similar criteria set in stage one. Then, they attend a meeting (group discussion) to go through all items. Disagreements in retention or removal of items will be resolved through open discussions among the team members.

Due to the large number of items to be evaluated, the team had to meet up again twice for another round of discussions and evaluations. A two-hour meeting was conducted to help fine tune and finalise the list of items to ensure the comprehensibility and relevancy of items to their respective receptivity factors. This meeting also allows team members to re-evaluate the agreement achieved in the first meeting.

All items are compiled and refined to be used in the next stage of the expert judge process. The final stage uses the methodology recommended by Zaichkowsky (1985). The new list of items is then incorporated into a questionnaire. In the questionnaire, the judges will rate the level of relevancy of items to the theoretical definition of the five receptivity factors.

Six expert judges, 3 expert judges in UK and 3 in Malaysia will evaluate the questionnaire. The judges consist of two academicians (one from strategic management/change field discipline and one from hospitality field) and one PhD student from each country. Selecting judges from both countries will ensure the relevancy of items in both contexts, Malaysia and UK. One uses of ORC scale is to be part of the TRANSFORMATION Project's Management Toolset in UK. Therefore, it is important that items are relevant to both countries.

Zaichkowsky (1985) has outlined the data analysis in each stage. First, the determination of inter-coder reliability is conducted to determine the level of agreement between the expert judges. A minimum of 2 sample sizes are considered adequate to test for the intra-class correlations coefficient (ICC) analysis. The ICC value measures two separate things; 1) level of consistency and 2) level of agreement (Walter *et al.*, 1998). These measure the variation and differences in judgements and areas of disagreements (Walter *et al.*, 1998). An ICC score of 1.0 suggests that there is no variance within each indicator for each of the items between the judges. Landis and Koch (1997) suggest that the minimum ICC score that demonstrates substantial coder agreement is .60. If the score is above the .60 value then the study will be able to analyse the items and determine which items to be retained / removed.

Second, all items are evaluated individually to determine relevancy to theoretical definition. The judges have to rate each item based on a likert scale ranging from 1 (highly representative) to 5 (not representative) (Hardesty & Bearden, 2004). The

outcome is the identification of items that truly represent or measure each receptivity factor (Hardesty & Bearden, 2004).

The analysis consists of two methods; 1) sum score method and 2) complete rule method. The sum score method is defined as the “total score for an item across all judges” and the complete rule method is operationalized as “the number of judges that who rated an item as completely representative of the construct” (Hardesty & Bearden, 2004; p. 104). The sum score method has been cited to outperform other methods in predicting the items included in a scale (Hardesty & Bearden, 2004). One benefit is that all judges’ decisions are taken into account when accessing the content adequacy and face validity of items. The scores from all judges are summed up and each response is given a number. The cut-off point for item retention is twenty-four, where the item’s minimum rating per judge should be more than 4 points (representative).

Alternatively, complete rule method is more commonly used in expert judgement. It was first used by Zaichkowsky (1985), where items retained were based on the number of judges who rate the items to be representative or highly representative. Hardesty and Bearden (2004) have identified variation in the percentage of agreement between the judges before items are retained. The percentage range should be between 50 to 80 per cent. Zaichkowsky (1985) sets the condition that at least 80 per cent of the judges must rate the item as representative. This study adopts the condition set by Zaichkowsky (1985) since this incorporates rigour in the analysis.

The final outcome of all three stages is the list of items that measures the five receptivity factors. All items should demonstrate high content adequacy and face validity. Items will be included in a questionnaire to be distributed to a sample. This will determine how well these items perform at measuring the receptivity factors. This process is discussed in greater detail in the next section.

### **3.8 PHASE 2 – SCALE DEVELOPMENT – SURVEY**

In this phase, items generated from the previous phase will be used in a questionnaire to determine how they measure the five receptivity factors. The purpose of this phase is the removal of items that poorly measure the receptivity factor, and retaining of items that achieved high levels of reliability and validity. This phase is divided into three steps; 1)

measure development, 2) scale construction and 3) scale evaluations (Refer to **Figure 3.2**).

The measure development step involves the inclusion of the items into a questionnaire. This will address issues relating to 1) number of items per receptivity factor, 2) the scale assigned to each item, and 3) the wording of the item. Once the questionnaire is developed, it is distributed to a set of sample prior to analyses in the scale construction and evaluations steps.

The second and third steps involve statistical analysis of the questionnaire. Both Anderson and Gerbing (1988) and Hinkin (1995) suggested that if a research is able to collect enough samples, the research can divide the sample into two separate sets for each scale construction and evaluations step. The scale development step focuses on the rigorous assessment of the psychometric properties of the scale. The scale evaluations step refines the scale of the previous step. The next sub-sections outline the steps in this phase in detail.

### **3.8.1 Step 1 – Scale Construction**

The design of the questionnaire is a critical part in scale development process, as it allows the study to attain a more reliable data. This research employs the nine-step procedure that was recommended by Churchill & Iacobucci (2002; p. 315):

- Information sought is driven by definition of the construct discussed in the proposed model.
- Type of questionnaire and method of administration is a structured questionnaire to ensure all respondents are subjected to the same content and order.
- Checking all questions for content validity.
- Consider the form of response for the questionnaire.
- The wording for each question is designed in the simplistic way and free of jargon and terminology.
- The question sequence will be carefully considered to ensure a logical flow. This process helps respondents to complete the questionnaire. It can also avoid issues of ambiguity which can violate the validity of the data.
- Good physical characteristics of the questionnaire. It will encourage respondents to complete the questionnaire.

- Re-examination and revision of questions and contents of the questionnaire.

Majority of these steps has been fulfilled in the item generation phase. Only three more steps need to be addressed in this step; 1) number of items per receptivity factor, 2) the assignment of psychometric properties, and 3) negatively worded items.

One issue highlighted by Hinkin (1995) is the number of items that measure each factor. Scales comprises of too many items would create respondent's fatigue and higher response bias. Scales with too few items may reduce the scale's content and construct validity (Hinkin, 1995). The remaining items that have been substantially reduced in the expert judge stage will be included in the questionnaire.

The next issue is the assignment of psychometric properties of items. The most common method is Likert scale (see Ashill & Jobber, 2010; Linderbaum & Levy, 2010; Sharma, 2010). Likert scale is used to test for variance among respondents in statistical analysis. The response option usually ranges from three to ten points. The most common range used in organisational literature is between five to seven points, where it tends to perform better in all tests (Bearden *et al.*, 1993; Preston & Colman, 2000). Recommendations are to use an odd number of response scale as this allows the middle response to be interpreted as neutral points (Colman *et al.*, 1997).

The final issue is the wording of the items. The use of negatively worded items has been discouraged by some literature as it decreases the validity of the scale (Hinkin, 1995). Therefore, this study will not use any negatively worded items for the receptivity factors.

### **3.8.2 Step 2 – Scale Development**

The main objective of steps 2 and 3 in the scale development is to conduct statistical analysis to determine the psychometric properties of the items. Items with poor reliability and validity will be removed from the scale. Items retained must demonstrate the following psychometric characteristics; 1) high reliability, 2) low standard error of measurement, 3) high constructs validity, and 4) high discriminatory power.

The statistical analysis requires the sample to be split in half, where the first sample set will be used for the purpose of item reduction and the second sample set is used to determine the reliability and validity of the new scale.

### **3.8.2.1 Data Collection Strategy**

The data collection strategy is developed to ensure that the study can capture a large number of participants for the entire sample sizes. A large sample number allows rigorous statistical assessment of the psychometric properties for each receptivity factor. The sample of this phase consists of MBA students and public/private sector employees. The breadth of sample frame allows higher generalizability of the scale across multiple research contexts.

This study uses the probability sampling procedure called simple random sampling. This means that each unit of the population in the sampling frame has an equal probability of inclusion in the sample (Bryman, 2001). This study will distribute the questionnaire to MBA students in three universities in Malaysia. A research assistant and researcher have personally approached various organisation (public/private) bodies to get their employees to answer the questionnaire. A maximum of two employees' responses were taken from each organisation.

### **3.8.2.2 Analysis Strategy**

The analysis of the collected data is divided into three parts 1) preliminary analysis, 2) scale development and 3) scale evaluations.

#### ***3.8.2.2.1 Preliminary Analysis***

Prior to any in-depth statistical assessment of the scale, an exploratory data analysis should be done to evaluate the quality of the data collected. This section addresses issues relating to missing data, outliers and assumptions on multivariate normality.

The analysis of the missing data addresses two kinds of problems; 1) reduction of statistical power, and 2) threats of validity of statistical inferences (Fichman & Cummings, 2003). Power is reduced as missing data reduces the number of available observations. Additionally, missing data can cause statistical inferences to be biased when compared to those items without missing data.

The first analysis test is the analysis of missing data. During the preliminary analysis, the research is able to determine which missing data is minimal enough and does not affect the results (Hair *et al.*, 2010). The analysis requires the deletion and imputation of the 'Missing Completely At Random' (MCAR) data. Fichman and Cummings (2003)

adopted Little's (1992) and Little & Rubin's (1987) classification for dealing with missing data. The classifications are:

- Complete case analysis – listwise deletion;
- Available case analysis – pairwise deletion;
- Unconditional mean imputation;
- Conditional mean imputation, usually using least square regression;
- Maximum likelihood; and
- Multiple imputation (MI)

Hair *et al.* (2010) suggested researcher should simply delete offending cases since this is the most efficient means of preliminary analysis. The other option is to use listwise deletion (Fichman & Cummings, 2003).

The next analysis is the detection of outliers. Outliers are observations that are unusually high or low standing out from others, and it must be viewed within the context of the analysis and evaluated by the types of information they might provide (Hair *et al.*, 2010). Sources of outliers are: 1) the errors that occur during the data collection (e.g. data recording errors) and errors in preparing data for analysis (e.g. typos typing mistakes); 2) the unpredictable measurements-related errors from participants, including participants' guessing, inattentiveness, which may be caused by fatigue, and mis-responding, which happens when, for example, participants misunderstand the instructions; and 3) the inclusion of participants who do not belong to the target. All of those three sources of outliers can be controlled by checking for typos, the use of expert judges for content validity, and limiting only people who have working experience for sampling frame.

Univariate and multivariate data normality are important prerequisite for Maximum Likelihood estimation in Structural Equation Modelling (SEM). Univariate normality will be checked with Kolgomorov-Smirnov and Shapiro-Wilk's test of normality while multivariate normality is checked using Mardia's (1970) test (Hair *et al.*, 2010).

Finally, it is necessary to test the comparability of the samples. There are two sample sets (i.e. MBA and public/private sector employees) which need to be combined to provide the study with a larger sample. Both sample sets must be tested to determine if they can be combined. The analysis requires Levene's test for equality of variances (Hair *et al.*,

2010). The data is collected using via two methods, one through web-based surveymonkey.com and the other using pencil-and-paper-based questionnaire. A comparability test is conducted prior to combining the two data sets of data.

Once all data have gone through all the preliminary analysis, the sample will then be split in half. The two sets will be used for the next two steps in this phase (scale development and scale evaluation step) (Anderson & Gerbing, 1988). The next section involves the analyses of the first half of the split sample.

#### **3.8.2.2.2 Exploratory Factor Analysis**

The first data set is used for item reduction step. Items that do not achieve high reliability and validity are removed from the scale. One method in this step is factor analysis (Hinkin, 1995). In the scale development process, factor analysis has been used in a diverse range of academic literature as a tool to define the underlying latent structure among items and a tool for item reduction based on a theoretical support (Hair *et al.*, 2010). The primary purpose of factor analysis is to examine the stability of the factor structure as well as providing information that help refine the new measures (Hinkin, 1995).

There are two types of factor analysis: 1) exploratory factor analysis (EFA) and 2) confirmatory factor analysis (CFA). EFA is used to discover the natural grouping of constructs influencing a set of responses, while CFA tests if the specified sets of items are influencing the response in a predicted manner. Hinkin (1995) suggested the use of structural equation modeling (SEM) to test the robustness of the scale. The most common practice in using factor analysis is to first analyses the item using EFA and then re-test the refined scale using CFA. Thus, EFA is used for the purpose of scale development whereas CFA is used for the purpose of scale evaluations.

EFA is used for the purpose of item reduction, and the identification of latent factors (Conway & Huffcutt, 2003). It plays a more prominent role in the scale purification (Churchill, 1979; Gerbing & Anderson, 1988). EFA prepares the data for hypothesis testing, where it assesses how items group together to represent a particular factor (dimension). Items that consistently group together demonstrate the factor unidimensional. It reduces the number of items in each dimension while retaining the original variance of the latent factor (Conway & Huffcutt, 2003). This study use EFA to

determine unidimensionality of five receptivity factors and reduce the number of items per factor.

Conway and Huffcutt (2003; p.150) posit that there are three EFA decisions that researchers must consider: 1) the factor extraction model used, 2) the method used to rotate the factors and 3) the number of factors retained.

The first and second decisions are closely related. Two popular categories of extraction models are common factor model (i.e. Principal Axis Factoring) and component model (i.e. Principal Component Analysis) (Conway & Huffcutt, 2003; Gorsuch, 1983). Hinkin (1995) reported that the Principal Component Analysis (PCA) is one of the most frequently used methods used by researcher in scale development. However, Conway and Huffcutt (2003) claimed that PCA is more effective in item reduction. PCA functions to “simply reduce the number of constructs by creating a linear combination that retains as much of the original measure’s variance as possible” (Fabrigar *et al.*, 1999). PCA can produce inflated values in cases where factors are uncorrelated and communalities are moderate (Gorsuch, 1997). Items that are not psychometrically sound at measuring the receptivity factor should be removed from the scale. Thus, PCA is consistent with the main goal of this second phase of the study as receptivity factors have been defined from previous literature.

On the other hand, PAF assumes that the variance of each measured variable can be decomposed into common and unique portions, while extracting random error variance and systematic variance specific to the given measured variables (Ford *et al.*, 1986). Factors extracted are imperfectly reflected by the measured variables and variances are due to common factors (i.e. factors that influence more than one measure) or unique factors (i.e. factors that influence only one measure) (Conway & Huffcutt, 2003).

The third decision is the number of factors to be extracted. Nunally (1978) suggested that the best way to determine the number of factors is through the evaluation of the eigenvalue. An eigenvalue of more than 1 and suppressing loadings less than .30 is the best way to determine the number of factors.

This study will use PCA and Varimax rotation based on Conway and Huffcutt’s (2003) recommendations. The development of the receptivity factors in the previous phase has been done separately, as for each of the factors are theoretically distinct (i.e. has its own

theoretical definition). Therefore, the factors are treated as separate factors in this phase too. In order to identify factor items, individual PCA is done for each factor. Furthermore, this study follows the recommendations made by Nunnally (1978) in the determination of number of items to be retained for each receptivity factors.

The analysis of the EFA began with the analysis of the Kaiser-Meyer-Olkin (KMO) index and Bartlett's test of sphericity. These two tests will determine the appropriateness of the factor model for factor analysis. The KMO value should range between 0 to and 1 and the minimum cut-off value should be more than .70 (Nunnally, 1978). The Bartlett's test of sphericity must be significant ( $p < .05$ ), which indicates the dependent factor is correlated.

Once the scale demonstrates a high KMO value and the Bartlett's test of sphericity is significant, this study will then analyse the dimensionality of each of the five receptivity factors. In the previous phase, this study has identified several dimensions for each of the receptivity factors. Therefore, it is important to address the issues of unidimensionality in this phase to determine that each dimension is distinct and there's no overlap in items between dimensions.

Once dimensionality is determined, the next step is item reduction. There are three indicators for poorly performing items; 1) low factor loading values, 2) low communalities value and 3) inter-item matrix (Hair *et al.*, 2010). The factor loadings for each items should be more than .50 (Hair *et al.*, 2010), however there are certain researchers who uses .60 (Bagozzi & Yi, 1988) and .70 (Fornell & Larcker, 1981) as the minimum cut-off point for item retention. This study will be using the .50 value as the minimum cut-off point for item retention.

The next indicator is the communalities value, which represents the amount of variance, accounted for based on the factor solution of each of the construct. Communalities of lower than .50 demonstrate that the items are not providing sufficient explanation of the receptivity factor (Hair *et al.*, 2010).

The final indicator is the inter-item matrix (Hair *et al.*, 2010). In this analysis, Hair *et al.* (2010) recommended that researcher looks at the item-to-total correlations value and the inter-item correlations value. Items retained must have item-to-total correlations value of more than .50 and inter-item correlations value of more than .30 (Hair *et al.*, 2010).

The final outcome of the EFA analysis is a reduced and refined list of items to measure the five receptivity factors. This refined scale will be further analysed using the second half of the split sample, where CFA will determine the scale's validity and reliability.

### **3.8.3 Step 3 – Scale Evaluations**

This step analyses the second sample set to determine the reliability and validity of the newly refined scale (Schwab, 1980). In this step, confirmatory factor analysis (CFA) is performed on the newly refined scale with the aim to determine the unidimensionality of each receptivity factor through the assessment of the factors' reliability, validity and model fit (Anderson & Gerbing, 1988). CFA is the most common method used in scale development process as it enhances the internal structure of each receptivity factors (see Squires *et al.*, 2011; Ashill & Jobber, 2010). Additionally, the study will determine if these five receptivity factors represent a second-higher order factor (organisational receptivity towards change) (see Ramani & Kumar, 2008). The evaluation of the scale is also conducted using CFA. The evaluation of the scale follows a step-by-step analysis. The next few sub-sections follow all the steps according to sequence in the data analysis.

#### **3.8.3.1 Common Method Bias**

Common method bias can occur when a questionnaire is used to collect responses from a single setting (Malhotra *et al.*, 2006). The problem with a self-reporting questionnaire arises because the respondents are asked to express specific opinions and attitudes that can be questioned and changeable in different time and environmental conditions (Podsakoff & Organ, 1986). The measure might be contaminated because all the measures come from the same respondents.

Additionally, common method variance (CMV) can occur when a single factor accounts for the majority of the covariance among the constructs. It is usually identified when all constructs are tested using factor analysis resulted in one single factor. Problems usually arise when the researcher interprets the correlations among constructs, where the CMV can inflate or deflate the observable relationships. One common statistical diagnostic analysis for CMV is Harman's one-factor test. All the constructs (including the antecedent and outcome of the receptivity factors) were entered in EFA using PAF method with un-rotated solutions. This is done to determine the number degree of variance in the examined construct (Podsakoff & Organ, 1986).

### **3.8.3.2 Reliability**

The determination of reliability for each newly refined receptivity factor is to ensure the consistency of items to measure the corresponding factors (Hair *et al.*, 2010). Reliability is determined through Cronbach's  $\alpha$  values for each factor, where the value should be more than .60 to achieve reliability (Hair *et al.*, 2010). Then, the factors will be analysed using the inter-item correlations matrix, as discussed in section 3.8.3.

### **3.8.3.3 Item Reduction and Scale Refinement**

Following reliability assessment, CFA is performed on each receptivity factor. The first step of the analysis is item reduction and scale refinement. This is achieved by identifying the strengths of the coefficient paths from the items to the observed latent factors. CFA will assess the extent to which the measurement model explains the variance in the data.

MacCallum (1986) termed this process as specification search. The main goal is to detect and correct specification errors that represent lack of correspondence between the proposed model and the true model (Scgars & Grover, 1993). The specification searchers are used to improve the performance of the scale by identifying specification errors through the analysis of modification indices (MI) and standardized residuals.

The MI is a data driven indicator, where it analyses the changes in the model. It shows how model fit can be increased through the removal of certain items (Harrington, 2009). MI provides evidence of misfit that relates to the misspecification which reflects the extent to which the hypothesized model is described (Brynes, 1998). LISREL8.8 provides MI for each fixed parameter specified, which indicates the "value of which represents the expected drop in the overall  $\chi^2$  value if the parameter were to be freely estimated in subsequent runs" (Brynes, 1998; p.122). The value of a given MI indicates the minimum magnitude by which overall likelihood ratio  $\chi^2$  value for the model decreases if the correspondent parameter were freed (MacCallum *et al.*, 1992). Anderson and Gerbing (1988) advised researchers to conduct one modification at a time because a single change in the model can affect other parts of the solution. Once an item is removed, the researcher should re-run CFA and analyse MI again. This process should be repeated until model fit is achieved.

Therefore, this study intends to use CFA as a tool for item reduction prior to testing the scale's validity. Hinkin (1995) supported the use of CFA as a tool to refine the scale, where it allows more precision in measurement model evaluations.

#### **3.8.3.4 Convergent Validity**

The final list of items from the previous analysis will be tested for convergent validity. Convergent validity is achieved when all items of receptivity factor “share a high proportion of variance in common” (Hair *et al.*, 2010). It is determined through the analysis of: 1) item reliability, 2) composite reliability (CR) and 3) average variance extracted (AVE) (Ashill & Jobber, 2010).

Item reliability entails the analysis of the factor loading of each item, where the minimum value for items to be retained is .60 (Falk & Miller, 1992). The factor loading values should account for more than 50% of the variance of the underlying latent factor (Bagozzi, 1994; Fornell & Larcker, 1981).

The second analysis is the CR value. The interpretation of the CR value is similar to the interpretation of the Cronbach's  $\alpha$  value. The difference between the two is that CR takes into account the actual factor loading rather than assuming that each of the items is equally weighted in the composite load determination (Chau & Hu, 2001). The CR value must be above .70 for the factor to demonstrate convergent validity (Nunnally & Bernstein, 1994).

The final analysis for convergent validity is the analysis of the AVE value. AVE value reflects how much each item represents the latent factor and must be more than .50 for the factor to demonstrate convergent validity. Once the new scale has demonstrated convergent validity, then the scale will be tested for discriminant validity.

#### **3.8.3.5 Discriminant Validity**

The discriminant validity is achieved when each of the factors are different and not highly correlated with each other (Fornell & Lacker, 1981). Discriminant validity is conducted using two methods: 1) the analysis of the AVE value (Fornell & Larcker, 1981), and 2) the nested model analysis (Gerbing & Anderson, 1988).

Fornell and Larcker (1981) recommended that discriminant validity is achieved when the AVE values of the two factors are greater than the common variance shared (phi-square,  $\phi^2$ ) of the two factors in question. The AVE value represents shared variation in the latent factors. The greater the AVE value of a paired factor than the shared inter-construct variance between them indicates that the correlations between the two factors and its measure items are higher than the correlations between the two latent factors. The items will be tested pair by pair and each pair will be tested for discriminant validity (Ramani & Kumar, 2008).

The second discriminant validity analysis is the nested models. Discriminant validity is achieved when the inter-construct correlations are significantly different from unity (Gerbing & Anderson, 1988). To analyse this, each of the receptivity factors are paired in sequence against one another. In total, there were combinations of 10 pairs. Each pair is analysed by comparing the nested (constraint) model with the unconstraint model. Discriminant validity is achieved when the unconstraint model performs significantly better than the constraint model (Gerbing & Anderson, 1988). Second, the researcher must look at the difference in chi-square between the two models. With the degree of freedom (df) of 1, the value of  $\chi^2$  differences should be greater than 3.841 to achieve discriminant validity for the unconstraint model (Gerbing & Anderson, 1988).

### **3.8.3.6 Factor Structure**

The next measure is to analyse the fit between the proposed model and the data. The purpose of this step is to analyse how well the five receptivity factors fit in a conceptual model. All items for each factor were run through CFA to determine the model fit of the conceptual framework.

Currently, there are numerous ways to test a model fit. A common indicator for model fit is the chi-square ( $\chi^2$ ) statistics (Mulaik *et al.*, 1989). An adequately fit model is where the  $\chi^2$  should be non-significant with  $p \geq 0.05$ . The smaller the  $\chi^2$  the better the model is considered to be. When the  $\chi^2$  is non-significant then the model is not rejected. Generally, it is accepted that a  $\chi^2$  that is two or three times larger than the degree of freedom is acceptable, but the closer the  $\chi^2$  is to the degree of freedom the better the model (Carmines & McIver, 1981).

However, Mulaik *et al.*, (1989) argued that many researchers found that the  $\chi^2$  is not really the only way to measure model fit. This particular indicator is highly affected by sample size, where a large sample size would always present significant levels of  $\chi^2$ .

The goodness-of-fit indices are often used to supplement  $\chi^2$  tests, which can be classified as incremental or comparative indexes. Mulaik *et al.*, (1989; p.444) recommended that a high Goodness-of-Fit index may be an “encouraging sign that a model is still useful even when it fails to fit exactly on the statistical grounds”. The fit index can be used to quantify the degree of fit along a continuum, which can be classified into absolute and incremental fit indexes (Hu & Bentler, 1999). The primary focus of the estimation process is to yield parameter values that have minimal discrepancy between the sample covariance matrix and the population covariance matrix implied by the model (Bryne, 1998).

However, there is a constant debate among researchers as to the best fit indexes and the cut-off point for each of the indices (Lance *et al*, 2006). This is due to the fact that there are a wide variety of fit indices. LISREL8.8 prints out 38 indices in the “Goodness-of-Fit Statistics” section of the output. Each one serves to optimize a slightly different objective function, “which varies from whether it relates to sample size or not, whether they asses absolute fit or fit relative to a benchmark model, or whether they value parsimony or not” (Iacobucci, 2009; p. 90).

The fit indices can be divided into two categories: first the absolute fit measure and second the incremental fit measure. The absolute fit measure identifies how well the model predicts the observed covariance/correlation matrix. The most common measures are the chi-square fit index ( $\chi^2$ ), chi-square per degree of freedom ( $\chi^2/df$ ) and root mean square error approximation (RMSEA). The second category is the incremental fit indices, where it compares the structural model to a null model. The common measures for incremental fit are the Bentler-Bonett non-normed fit index (NNFI) in LISREL8.8 and the comparative fit index (CFI). NNFI measures the parsimony between the null model and the proposed model through a comparison of the degree of freedom. CFI takes the “fit of one model to the data and compares it to the fit of another model to the same data” (Iacobucci, 2009; p. 91). It captures the relative goodness-of-fit, or the fit of one’s hypothesized model as an empirical increment above a simpler model where no paths are estimated (Iacobucci, 2009).

Hair *et al.*, (2010) recommended researchers to use several fit indices to help overcome some of the weaknesses of the fit indices. Furthermore, Iacobucci (2009) stated that there are some agreements amongst researchers as to which fit indices should be reported. They are: the  $\chi^2$  (and its degrees of freedom and  $p$ -value), the standardized root mean square residual (SRMR), and the comparative fit index (CFI). A “good” model should have the following fit statistics, the  $\chi^2$  test should be non-significant with  $p \geq 0.05$ , the SRMR should be “close to” 0.09 or lower),  $RMSEA \leq 0.06$ ,  $NNFI \geq 0.95$ ,  $CFI \geq 0.95$ , AND  $SRMR \leq .08$  (Hu & Bentler, 1999; Bagozzi, 2010, Iacobucci, 2009).

### **3.8.3.7 2<sup>nd</sup> Higher-Order Construct**

A higher-order construct is a multidimensional construct that has a higher abstraction level than its dimensions (Cheung, 2008). It is a latent model in which the receptivity factors serve as indicator of another higher level factor (construct) (see Law *et al.*, 1998). The purpose of this analysis is to determine if the five receptivity factors represents a higher-order factor (organisational receptivity towards change). This study will compare the model fit statistics between the first-order model and the new model where the five factors represent a second higher-order factor. Consistent with current practice, the study will conduct CFA on second higher-order receptivity with the average scores of each receptivity first-order construct (see Ramani & Kumar, 2008; Jayachandran *et al.*, 2005).

### **3.8.3.8 Nomological Validity**

Nomological validity is achieved when the construct under investigation has a distinct antecedents, and consequence effects or modifying conditions (Iacobucci *et al.*, 1995). The assessment of nomological validity requires the identification of an antecedent and an outcome for the receptivity factors. This study will test the relationship between the receptivity factors and two variables of the RBV framework – external environment and organisational performance.

The study will use Structural Equation Modeling (SEM) to test the relationships among constructs. The structural model is different from a measurement model, where the main purpose of the structural model is to present the theoretical relationship among latent constructs. On the other hand, measurement model presents the latent constructs as a linear combination of the observed indicator constructs. The structural model contains primarily of latent exogenous and endogenous constructs, where the model presents the

paths or direct effects (theoretical relationships) between them as well as the disturbance terms for these constructs. SEM provides more accurate estimates of causal relationship mainly because it incorporates measurement errors into the measurement models.

Once model fit is achieved by referring to goodness-of-fit statistics, the next step is to analyse the causal paths between the various latent constructs in the model. It allows the study to test the hypotheses in the conceptual model, and explain the variations in dependent constructs, measured by the squared multiple correlations (SMC) values of each path (structural equation) in the model. The statistical significance of each path coefficient suggests the strength of the relationships between the two constructs, which can be interpreted as weak, moderate or strong.

The path coefficients are reported as both standardized and unstandardized beta ( $\beta$ ) weights. Standardized  $\beta$  weights compare the relative importance between the different constructs. Garson (2009) suggests that the standardized  $\beta$  weights should be  $> 0.32$  to suggest a meaningful relationship between the constructs. Cohen (1988) provides a more specific rule of thumb, where he suggests that  $\beta < 0.20$  to be weak,  $\beta$  values between  $0.20 - 0.50$  to be moderate and  $\beta > 0.50$  to be strong. One limitation of the standardized  $\beta$  weights is that it does not allow comparison across different samples and studies (Hair *et al.*, 2010), therefore it is advisable to report the unstandardized beta weights as well to allow the comparison between samples and studies.

#### **3.8.3.9 Test of Mediation**

The final test for a newly developed scale is the test for mediation effect. The theoretical premise of mediation posits that a mediating construct is “an intervening construct that is an indicative measure of the process through which an independent construct it thought to impact a dependent construct” (Iacobucci *et al.*, 2007; p.139). The study will follow the procedure that was recommended by Iacobucci *et al.*, (2007), where the authors claimed that the use of structural equation modeling is a more superior method of testing for mediation effect as opposed to the use of regression. They outlined the steps researchers should use to test for mediation effects (see **Table 3.2**).

**Table 3.2 Mediation Testing**

1	<p>To test for mediation, fit one model via SEM, so the direct and indirect paths fit simultaneously to estimate either effect while partialling out, or statistically controlling for the other.</p> <p>a. “Some” mediation is indicated when both of the <math>X \rightarrow M</math> and <math>M \rightarrow Y</math> coefficients are significant.</p> <p>b. If either one is not significant (or if both are not significant), there is no mediation and the researcher should stop.</p>
2	<p>Compute the z to test explicitly the relative sizes of the indirect (mediated) vs. direct paths. Conclusions hold as follows:</p> <p>a. If the z is significant and the direct path <math>X \rightarrow Y</math> is not, then the mediation is complete.</p> <p>b. If both the z and the direct path <math>X \rightarrow Y</math> are significant, the mediation is “partial” (with a significantly large portion of the variance in Y due to X being explained via the indirect than direct path).</p> <p>c. If the z is not significant and the direct path <math>X \rightarrow Y</math> is (and recall that the indirect, mediated path, the <math>X \rightarrow M</math> and <math>M \rightarrow Y</math> is significant, or we would have ceased the analysis already), then the mediation is “partial” (with statistically comparable sizes for the indirect and direct paths), in the presence of a direct effect.</p> <p>d. If neither the z nor the direct path the <math>X \rightarrow Y</math> are significant, then the mediation is “partial” (with statistically comparable sizes for the indirect and direct paths), in the absence of a direct effect.</p>
3	<p>The researcher can report the results</p> <p>a. Categorically: “no”, “partial”, or “full” mediation</p> <p>b. As a “proportion of mediation” (in the variance of Y explained by X).</p> <p>c. Or comparably, as the ratio of the “indirect effect” to the “total effect”.</p>
4	<p>Each construct should be measured with three or more indicator variables.</p>
5	<p>The central trivariate mediation should be a structural subset of a more extensive Nomological network that contained at least one more construct, as an antecedent of Y or a consequence of X, M and Y.</p>
6	<p>The researcher should acknowledge the possibility of rival models, and test several, at least <math>Y \rightarrow M \rightarrow X</math>. Ideally these rivals would be fit with Q, to have diagnostic fit statistics. However, alternative models should be run even with only X, M and Y, and the researcher should be able to argue against the different parameter estimates as being less meaningful than their preferred model.</p>

This study intends to use this method to test for the mediation effect of the ORC scale. The final scale will then be used for the final phase of the scale development to analyse the relationship between the ORC scale and other factors in the RBV framework.

### **3.9 PHASE 3 – SCALE EVALUATION – SURVEY**

The final phase in the scale development process is the scale evaluation phase. The purpose of this final phase is to: 1) re-evaluate the reliabilities and validities of the newly refined scale using an independent sample, 2) ensure the nomological validity of the new measure, and 3) analyse the application of the ORC scale in the RBV framework (external environment, competitive advantage, and organisational performance). The

main purpose is to address the theoretical contributions of the study to determine if the ORC theory combines institutional and RBV theories to explain how organisations are able to find the right balance between conformity/legitimacy and profit optimization. To do so, the study applies the receptivity factors into the RBV theory.

In order to enhance the applicability of the factors, the study is going to apply the framework to only one industry. This will allow for better inferences by minimizing other institutional factors that might have an effect on the framework.

### **3.9.1 Data Collection Strategy**

Hinkin (1995) suggested that testing an instrument on a totally new sample increases validity and reliability. The sample for this phase consists of hotels that are located in Malaysia. The selection of the sample has been discussed in chapter 1, where the hospitality industry provides the context to apply the ORC and RBV framework. The questionnaires will be sent to hotel's top managers mainly because of their knowledge of the hotel strategies and operations. They are able to identify the changes within the hotels and know how the change is being implemented.

Probability sampling procedure called simple random sampling is used. Samples are taken from the sampling frame, which is the Malaysian Association of Hotel's database. The questionnaires will be distributed to the hotels' General Manager.

### **3.9.2 Analysis Strategy**

The purpose of this phase is to replicate all the analysis that has been conducted in the previous phase. Therefore the discussion on the types of analysis conducted on the data is similar to the discussion in the previous sections of this chapter.

Each construct will then be analysed using the CFA. CFA is used for: 1) scale refinement, 2) determination of convergent and discriminant validity, 3) model evaluations, and 4) hypothesis testing.

The final test for this phase is the mediation test. All of these analyses have been discussed in greater depths in the previous sections.

### **3.10 CONCLUSION**

The aim of this chapter is to describe the philosophical and methodological underpinnings of this research and the research design. The main purpose is to develop the ORC scale and to apply the ORC scale in the RBV framework. The development and validation of the scale is based on the recommendations made by Hinkin (1995). However, since the literature is almost two decades old, the study adds other statistical evaluations that are have been used in scale development articles (see Ashill & Jobber, 2010; Ramani & Kumar, 2008). In the following three chapters (i.e. four, five and six), the results and outcomes of scale development and evaluations are further discussed.

# CHAPTER 4

## Phase 1 – Item Generation

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### 4.1 INTRODUCTION

This chapter provides a comprehensive presentation of the first phase in scale development – item generation phase. The objective of this phase is to obtain a list of measures or items for each receptivity factor. This phase is divided into three steps: 1) synthesis of literature, 2) semi-structured interviews, and 3) expert judge. **Figure 4.1** illustrates the various steps in this phase. The chapter is organised according to these three steps.

*Figure 4.1 Phase 1 Research Design*

<b>PHASE 1: ITEM GENERATION</b>	
Step 1: Literature Review	Literature reviews on Organisational Receptivity towards Change
Step 2: Semi Structured Interviews	<p><b>Sampling Procedure:</b> Purposive sampling</p> <p><b>Sample:</b> Hotel Managers</p> <p><b>Purpose:</b> 1) To select the right items to measure each of the receptivity factors, 2) To determine the content Adequacy of each of the newly generated items</p> <p><b>Data Analysis:</b> NVIVO Content Analysis</p>
Step 3: Expert Judges	<p><b>Sampling Procedure:</b> Purposive sampling</p> <p><b>Sample:</b> 1) Academicians knowledgeable in theories linked to Receptivity, Strategic Management, Strategic Change, Hospitality Industry; 2) Members of the transformation project.</p> <p><b>Purpose:</b> 1) To determine the relevancy of the operationalization of each of the measures, 2) to determine if the items in the survey reflect the theoretical definitions, 3) to determine if each items are comprehensible to respondents, 4) to remove ambiguous, redundant and unrelated items. The final items should demonstrate high face validity.</p> <p><b>Data Analysis:</b> Delete items if 80% of the judges evaluate the item as not representative.</p>

### 4.2 PART 1 – SYNTHESIS OF LITERATURE

The first step is the synthesis of literature. The aim is to refine the theoretical framework and each receptivity factor. The outcome will be a list of semi-structured questions to be used in the next phase. The method is based on recommendations by David and Han (2004). The first keyword search (change) yielded 184,730 articles. To further eliminate

articles that are not relevant to this study, two keywords were used simultaneously (organisational change). This search yielded 72 articles.

To ensure the extensiveness of article selection other keywords were added based on Pettigrew *et al.* (1992), Butler (2003), and Butler and Allen's (2008) ORC framework. The terms are: 1) organisational culture, 2) change agenda, 3) goals, 4) networks, 5) relations, 6) leading change, 7) policy, 8) ideological vision, 9) institutional politics, 10) implementation capacity, and 11) possibility space. Then the criteria (if more than one) were set with at least one additional (substantive) keyword required, along with "receptivity" or "change". To do so, three rows in the "Advance Search" option in EconLit were used. **Table 4.1** summarises the number of articles found at each search stage.

**Table 4.1 Selection of Articles**

Filter type	Description	ABI Result	Comments on Adaptations
	Number of Items found in search in ABI/Inform relating to the keyword 'change'	184,730	
Substantive	All articles with either "receptivity" and/or "change" in title or abstract	72	
Substantive	At least one of 17 additional keywords must also appear in title or abstract	42	All articles were read in totality mainly due to the small sample retrieved from this search.
Substantive	The article must have at least 5 keyword in the title or abstract	6	Only 3 were selected because each has at least 5 terms in the 3 <sup>rd</sup> substantive keyword search. However, 3 more articles were added due to its discussion in Pettigrew <i>et al.</i> , (1992) original ORC framework.

Methodology	At least one of seven keywords indicating empirical data or analysis must appear in title or abstract	6	The theory of receptivity is predominantly conducted in the interpretivist paradigm and it is consistent with all 6 articles.
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As discussed in the previous chapter, certain adaptations were made from David and Han's (2004) research. First, the study included the book that was written by Pettigrew *et al.* (1992). Second, the study included other literature which does not share the same keyword "receptivity" or "change".

In total one book and eight journal articles were added to the list of articles to be reviewed in the development of items for each receptivity factor. They are: 1) Pettigrew *et al.* (1992), 2) Butler & Allen (2008), 3) Newton *et al.* (2003), 4) Jones (2002), 5) Judge and Elenkov (2005), 6) Judge *et al.* (2006), 7) Judge and Blocker (2008), and 8) Judge *et al.* (2009).

The book by Pettigrew *et al.* (1992) was the seminal work on the ORC theory. Other articles by Butler and Allen (2008), Newton *et al.* (2003) and Jones (2002) were included because each discussed the receptivity factors based on Pettigrew *et al.* (1992) original receptivity framework.

The other four articles by William Q. Judge and colleagues had similarities with certain receptivity factors. Furthermore, these four articles relate to the development of a scale in the organisational capacity for change construct. Thus, certain measures developed in the scale will be useful in the development of items for the receptivity factors.

The analysis of the literature, using the deductive analysis process, led to the decision to use Butler (2003) and Butler and Allen (2008) ORC framework as the basis of the scale development. Butler (2003) extended and condensed Pettigrew *et al.* (1992) ORC framework from eight receptivity factors to four factors, which has been discussed extensively in Chapter 2. The analysis has led to the development of a list of semi-structured questions that are used for the next step.

### 4.2.1 List of Semi Structured Questions for Interviews

The outcome of the synthesis of literature is the development of semi-structured questions that represent each receptivity factor. These questions centred on Butler and Allen's (2008) ORC framework, which consists of five receptivity factors. The definitions of each receptivity factor were used as basis. However, to enhance the comprehensiveness of the questions, the study referred to the focal questions published by Newton *et al.* (2003) and Judge and Elenkov (2005). A total of twenty four semi-structured questions were generated (see **Table 4.2**). Two other variables (external environment and organisational performance) were included to identify the possible linkages between these variables and receptivity factors.

**Table 4.2 Semi-structured Questions for Interviews**

<b>EXTERNAL ENVIRONMENT</b>	
1	Please describe a recent environmental condition that changed certain aspects of the hotel operations.
2	How does the hotel respond to that environmental condition / factor?
3	What type of changes made in the hotel in response to change in the environment?
<b>RECEPTIVITY FACTOR 1: IDEOLOGICAL VISION</b>	
1	How do you use your organisational vision to generate a need for change and commitment to change?
2	How does your hotel come up with change strategies that fit the organisational vision?
<b>RECEPTIVITY FACTOR 2: LEADING CHANGE</b>	
1	How is leadership exercised?
2	How does the leader implement the change strategies?
3	How does the leader influence other members to support change?
4	Is there continuity or stability in the leadership?
<b>RECEPTIVITY FACTOR 3: INSTITUTIONAL POLITICS</b>	
1	How does the organisation build support for change strategies?
2	What are the strategies the leader uses to gain support?
<b>RECEPTIVITY FACTOR 4: IMPLEMENTATION CAPACITY</b>	
1	How do you implement change?
2	What are the main organisational infrastructures, procedures and systems that are used to facilitate change implementation?
3	Are the changes conducted incrementally or radically?
4	How does a leader communicate the need for change?
<b>RECEPTIVITY FACTOR 5: POSSIBILITY SPACE</b>	
1	Which existing internal factors restrict change?
2	Please identify an industrial norm or practice that cannot be changed?
3	Does the organisation promote learning?

4	How does the organisation create extra capacity to absorb new practices?
5	How does the organisation anticipate / plan for future issues / trends?
<b>OTHER RECEPTIVITY FACTORS</b>	
1	Are there other factors that you believe to be important receptivity factors unique to the hospitality industry?
<b>ORGANISATIONAL PERFORMANCE</b>	
1	Which performance variables would be the most important indicator for a successful change strategy implementation

### 4.3 PART 2 – SEMI-STRUCTURED INTERVIEWS

The second step is to conduct the semi-structured interviews. The purpose is to determine the relevancy of the receptivity factors in another organisational context and identify other unique receptivity factors in this context.

#### 4.3.1 Demographic Profile of the Respondents

As explained in the previous chapter under sampling (3.7.2) the study's sample consisted of hotel managers from United Kingdom (UK) and Malaysia. Four hotel managers from UK and ten from Malaysia were interviewed. The hotel profiles in UK consist of one one-star hotel, two four-star hotels, and one five-star hotel. The hotel profile in Malaysia consists of two three-star hotels, six four-star hotels and two five-star hotels.

#### 4.3.2 Coding Schemes

Prior to analysis, coding schemes were developed based on the ORC framework. The coding schemes are also based on the ORC literature discussed in chapter 2, namely from the ORC framework by Butler and Allen (2008). Eight free nodes used were; 1) environment, 2) ideological vision, 3) leading change, 4) institutional politics, 5) implementation capacity, 6) possibility space, 7) other receptivity factor and 8) performance.

To enhance comprehensiveness in item generation, sub-dimensions were provided for each of the receptivity factors. These sub-dimensions are categorized as tree nodes, each relating to the main factors. Ashill and Jobber (2009) recommended using sub-dimensions to help categorize the information further thus, leading to a more comprehensive item generation. **Table 4.3** illustrates the relationships between the tree-nodes and the free nodes.

**Table 4.3 Receptivity sub-dimensions**

Main Receptivity Factors (Free Nodes)	Sub-Dimension of Receptivity Factors (Tree Nodes)
RF1: Ideological Vision	Coherence and Quality of Vision Identification with Culture
RF2: Leading Change	Location of Decision Making Who Implements Change Change Leader's Actions Leading Change Continuity
RF3: Institutional Politics	Type of Network Used Power Relations Support from Other Networks Political Skills
RF4: Implementation Capacity	Change Mechanism and Strategies Speed of Implementation Behaviour of Stakeholders Strategies for Managing Change
RF5: Possibility Space	No Universal Best Practice Path Dependency Choice Organisational Play
Other Receptivity Factors	

Source: Pettigrew *et al.*, (1992); Newton *et al.*, (2003); Butler (2003); Butler & Allen (2008)

### 4.3.3 Inter-Coder Reliability

Based on the analysis, the Kappa level for the two coders was .829, which suggests a high level of inter-coder reliability.

**Table 4.4 Cohen's Kappa**

Symmetric Measures					
		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Interval	Pearson's R	0.829	0.034	23.412	.000 <sup>c</sup>
Ordinal by Ordinal	Spearman Correlation	0.829	0.034	23.412	.000 <sup>c</sup>
Measure of Agreement	Kappa	0.820	0.037	13.155	0
N of Valid Cases		252			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

### 4.3.4 Results – Exploring Receptivity Factors

This section will discuss the findings from the semi-structured interviews.

#### 4.3.4.1 RF1: Ideological Vision

There are two sub-dimensions for *ideological vision*. Analysis reveals that the findings were consistent with the literature on receptivity where both sub-dimensions were found to have an impact on the rate and pace of organisational change.

**Table 4.5 Content Analysis of Interviews**

	Hotel 1	Hotel 2	Hotel 3	Hotel 4	Hotel 5	Hotel 6	Hotel 7	Hotel 8	Hotel 9	Hotel 10	Hotel 11	Hotel 12	Hotel 13	Hotel 14
Country of Origin	Malaysia										United Kingdom			
Star Ratings	3*	3*	4*	4*	4*	4*	4*	4*	5*	5*	2*	4*	4*	5*
Dimension 1: Coherence and Quality of Vision		X		X	X	X	X		X	X			X	X
Dimension 2: Identification with Culture	X	X	X	X	X	X	X*		X*	X*	X		X	X

X\* Hotels that discuss linkages between culture and vision

#### 4.3.4.1.1 Coherence and Quality of Vision

Nine managers discussed the importance of coherent and quality of vision in affecting the rate and pace of change. Five managers noted the importance of a transparent vision to all employees, where the vision help sets a clear future direction for the hotel. These hotel managers often communicate the vision and the purpose of the hotel strategy to all employees.

Four hotel managers reported that the vision was often created in response to external environmental conditions. One claimed that the hotel plans for any new environmental crisis the industry faces, where crises are often viewed as opportunity. In that organisation the vision is evaluated every five years. The top management team plays an important role in spearheading the evaluation and development of the vision and mission statement. During these sessions, the team dismantle the current vision and make sure all strategies and objectives are in line with the new vision.

The owner of a four star hotel stated that his hotel's vision is "4 star hotel with 5 star services" (4 star hotel manager, Malaysia). He claimed that all functional strategies have to fit with this vision. An example given was from the marketing strategy, where all accommodation packages were much cheaper than any five star hotel but at par in service quality.

Five managers claimed the vision was also used to set the rate and pace of change in their organisation. One of the managers contended that,

*"... to become No. 1 the hotel should always stay ahead, we can't afford to be reactive" (5 star hotel manager, Malaysia)."*

This contention demonstrates that the organisation changes its vision several times to adapt to environmental change in order to remain current. Another hotel claimed that the change of CEO would not affect the change in organisational vision as the Group GM is the custodian of the vision.

#### **4.3.4.1.2 Identification with Culture**

The next sub-dimension is identification with culture. Although twelve hotel managers discussed the role of culture as a barrier or enabler of change, most discussion on culture emerged when the managers were discussing the implementation capacity factor rather than the vision factor. In here, the managers discussed how culture affects the implementation of change as opposed to its linkages with vision. The findings suggested that the discussion of culture was better suited to the implementation capacity factor rather than ideological vision factor.

Only three managers linked culture with vision. Two aspects of culture were linked to vision. First, there was discussion of how the new vision contradicts existing organisational culture. Second, the managers discussed how hotel used the vision to create a proactive culture. Only one manager explained how the new organisational vision contradicts existing culture. This was a four star hotel that was bought over by another company. As part of the terms of the purchase, the new company had to retain all existing employees and provide better benefits for them. However, it was difficult for the new company to change the culture. It was difficult for the new management to change the old attitude of the employees. Most employees were unable to adapt to a new

proactive culture and eventually had to leave the hotel. The new management was very clear:

*“... either you follow or you can leave”. The manager claimed that “each of us was pretty much set in our ways. It was hard to move them around, even if we try, they do not function very well and it’s harder for them to adapt” (4 star hotel manager, Malaysia).”*

Two managers discussed how their hotels used the vision to create a proactive culture, including a positive attitude towards change. These hotels made “adapting to change” as part of their organisational culture. One hotel director claimed his hotel chain has always been very proactive towards environmental conditions. They always plan for a crisis and every crisis is viewed as an opportunity. Part of their procedures and culture involves constant evaluation of their vision.

Another hotel also claimed that being proactive and responsive is achieved through linkage between culture and vision. The general manager always makes an effort to analyse and understand the market. The hotel is quick to overcome issues or problems that arise.

Other discussions on culture will be included below in the implementation capacity factor.

#### **4.3.4.2 RF2: Leading Change**

The leading change factor consists of four sub-dimensions. The findings revealed that all four sub-dimensions have some effects on the rate and pace of change within the hotels in this study.

**Table 4.6 Content Analysis of Interviews**

	Hotel 1	Hotel 2	Hotel 3	Hotel 4	Hotel 5	Hotel 6	Hotel 7	Hotel 8	Hotel 9	Hotel 10	Hotel 11	Hotel 12	Hotel 13	Hotel 14
Country of Origin	Malaysia										United Kingdom			
Star Ratings	3*	3*	4*	4*	4*	4*	4*	4*	5*	5*	2*	4*	4*	5*
Dimension 1: Location of decision making	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dimension 2: Who Implements Change Programme			X	X	X	X	X			X		X		
Dimension 3: Change leader's action	X	X	X	X	X	X	X	X	X	X	X	X	X	
Dimension 4: Change leader continuity	X		X		X	X				X			X	

**4.3.4.2.1 Location of Decision Making**

All fourteen hotel managers discussed the first sub-dimension, location of decision making. Discussions relating to this sub-dimension revolved around the top-down approach to change implementation, the role of top management in leading change initiatives, and level of autonomy given to the top management.

With regard to the top-down approach to change implementation, all managers highlighted that most change strategies are decided at the top level, by the head office or owner of the hotel. Most of the change initiatives are leader-centric. Five managers asserted that either the group's top management or the owner would decide on the strategic change within the hotel. Some mentioned the owner as having full control of the hotel chain, thus holding the power to decide on restructuring plans or any other changes in the hotel chain. Even though the owner receives input from others, the ultimate decision falls to this person. Everything has to be approved by the hotel owner.

One owner claimed that his managerial ideology is,

*“zooming in on the hotel’s problems and issues” (Owner of a 4 star hotel, Malaysia).”*

By focusing on the problem, he was able to make the hotel more responsive towards change. He wanted to ensure all problems are rectified and solved efficiently.

In other chain hotels, the group general manager has the most power to decide. In these organisations, the board of directors are seldom involved in operational issues, and only has input regarding changes in policies or the implementation of new policies.

The second issue relates to the role of the top management leading the change initiatives. A majority of the managers indicated that the top management does play a big role in the decision making relating to change. The head office or owner normally considers the team’s recommendations and feedback before making the final decision. These key individuals play a substantial role in leading the change.

The group general manager of a four star hotel used the Fish skeleton as an analogy to explain the decision making in his hotel. He claimed that,

*“... the top 10% of the fish is the head. However, this is the part that controls the whole body, irrespective of its mass and percentage. The 90% represents the rank and file in the hotel. If the top 10% stinks then the whole 90% would stink too... the head of departments are the key. They are the experts in their department” (Group general manager, 5 star hotel, Malaysia).”*

He went on to cite that this was his reason to consult the head of departments first before planning for any changes in the hotel. One manager reported that though the general manager has veto power, most of them would consider listening, consulting and getting as much feedback from each head of department prior to decision making.

The final issue relates to the level of autonomy given to the top management team by the headquarters or hotel owner. Two hotels reported that the hotel owners were not involved in the decision-making. One hotel general manager had full autonomy to decide on the direction and operations of the hotel. Another hotel manager claimed that the general manager only consulted the hotel owner once. There is little discussion on the top

management's autonomy to change the direction of the hotel. One manager reported that since his hotel is the first "express" hotel in the group, the board of directors were more willing to follow management's suggestions. Most proposals made by heads of department have to go through the top management team prior to decision and implementation.

#### ***4.3.4.2.2 Who Implements Change***

Seven hotels discussed the importance of the general manager and top management team being involved in the implementation of any changes. One hotel owner claimed that he would address all employees whenever he wanted to implement something new. He claimed that the support of top management and the rest of the employees would expedite the change process. However, he believes in the use of coercion to make certain individuals change. Thus, his power as the owner plays an important role in speeding up the change process.

Another hotel manager reported that when the hotel was bought over, the new management team enforced strict compliance, where some employees refused to adapt to the new system and were asked to leave.

#### ***4.3.4.2.3 Change Leader's Action***

The findings indicated that this sub-dimension is an important factor that affects the rate and pace of change. Thirteen hotel managers claimed that the leader's actions affect how fast the change is being implemented. Two factors arise from the discussion are: 1) management ideologies, and 2) actions that lead to gaining employee's support.

The first point discusses different manager's ideologies. Certain managers reported that the general manager is very strict when it comes to compliance with hotels policies, even new policies being implemented. One hotel manager reported that the new general manager was stricter and monitored all the department heads closely. He made sure all the strategies are in line with the hotel's vision. Some actions he took are contacting staff, close monitoring, increasing communications and regular strategic meetings with all heads of department. These actions trickled down the hierarchical chain. He expects all heads of department to deliver the information and treat their staff accordingly.

One hotel manager claimed he is a very strict leader but is also very honest. He said,

*"I believe that when you are honest, then people would follow you. I always treat the hotel I am working for as my own hotel. My principle is leading by example. I do everything with my employees. I am very hands-on person. I discuss all my decisions with the HOD (head of department) and try to gain consensus with them. Once consensus is reached then it will become the hotel's new policy" (Four star hotel manager, Malaysia)."*

The next point is the behaviours and actions taken by leading change to gain employees support towards change. Some of the discussion about methods is closely linked to some of the discussion in implementation capacity (section 4.3.4.2). Managers are in agreement that the most popular way to attain support from employees is through persuasion, discussions and good communication. A majority of the hotel managers supported the fact that communication is key in implementing any strategy. In most of the hotels, meetings were held every morning in every department. This is when the head of department communicates with employees about any changes in policy or operations. The heads of department gather the feedback and share it during top management meetings.

Another hotel manager reported that it is important to *get all* the heads of department involved to expedite change. The hotel manager claimed that by listening and considering their suggestions and accommodating their needs, the manager would gain more support for the change program. Another claimed that he has to constantly motivate employees, mainly because they are the ones who "ran the show", therefore their support is crucial.

*"It is important for you to gain their trust and that would enhance their commitment to you" (5 star hotel manager, United Kingdom).*

He claimed that employees' commitment level would be enhanced when they knew that the manager is "*behind them all the way*".

#### **4.3.4.2.4 Leading Change Continuity**

Issues relating to continuity in leading change were discussed by six managers. One reported that the continuity of general manager does not make a huge impact on changes in hotel strategy, essentially because the real custodians of vision, strategy and policy are

the head office or hotel owners. The head office or owner would ensure the retention of a strategic direction if they see fit.

Two managers shared issues relating to the general manager being an insider of the hotel chain rather than an outsider. The interviewee claimed the hotel's general manager had been working in the hotel for 20-30 years. He contended the hotel chain believed in building up long-term strategies which were ingrained in the management styles and culture of the hotel. The long-term general manager was a stronger brand custodian as compared to short-term general managers. He claimed that the UK hotel system is strong because of the belief in its people. He further asserted that a CEO with short-term contracts was not good for the hotel industry.

Another hotel manager claimed it was very hard for employees every time a new general manager is appointed. A two – three year contract is too short for a general manager and with every change in leadership there would lead to a new strategy and vision being implemented.

#### **4.3.4.3 RF3: Institutional Politics**

The third receptivity factor is institutional politics, which is divided into four sub-dimensions.

**Table 4.7 Content Analysis of Interviews**

	Hotel 1	Hotel 2	Hotel 3	Hotel 4	Hotel 5	Hotel 6	Hotel 7	Hotel 8	Hotel 9	Hotel 10	Hotel 11	Hotel 12	Hotel 13	Hotel 14
Country of Origin	Malaysia										United Kingdom			
Star Ratings	3*	3*	4*	4*	4*	4*	4*	4*	5*	5*	2*	4*	4*	5*
Dimension 1: Type of Network Used	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dimension 2: Power Relations	X	X	X		X	X	X		X	X			X	
Dimension 3: Support from Other Networks	X	X	X		X	X	X	X	X	X	X	X	X	X
Dimension 4: Political Skills							X							

**4.3.4.3.1 Type of Network Used**

Sub-dimension one is type of network used, which revolves around the discussion of using either formal or informal networks by change leaders to expedite change implementation. Formal networks are the use of policies, systems or procedures to enforce compliance to new changes. Almost all hotel managers claimed that the use of formal network is central in change implementation.

Ten managers reported having strict formal procedures to help organise change implementation. The procedures are: 1) method of communication, 2) involvement process of employees, 3) monitoring, and 4) feedback. One hotel manager claimed that during the merger of two hotels, the new management team utilised policies and systems as a means of control.

Another general manager of a four star hotel in Malaysia claimed he used formal networks to implement changes when he took over the hotel. He emphasised:

*“I was very strict and all the employees were expected to change to follow the new system that I have implemented ... the work culture has to change to be more efficient. To do so, formal procedures help with enforcing compliance” (4 star hotel general manager, Malaysia).”*

As well as formal networks, the use of informal networks relates to how a change leader uses his relationships with key individuals from either inside or outside the organisation to expedite change. Two hotel managers discussed the use of informal networks where they used their relationship with the hotel owner who provided them with leeway to implement changes. Another hotel manager claimed that the hotel owners often interfered with the management of the hotel and he would have to ensure their satisfaction prior to implementing any changes. There were also instances where a close relationship between the head of department and the hotel owners affected the decision of the general manager.

#### **4.3.4.3.2 Powers Relations**

Sub-dimension two addresses issues relating to different stakeholders who have the power to affect change strategies and implementation. There are two types of power, formal and informal power (Pettigrew *et al.*, 1992). Formal power comes from positional power and informal power is based on relationship/coalitions between various stakeholders. Nine hotels discussed this sub-dimension.

Power lies between the owner/head office and the top management team. Six hotel managers discussed the role of formal power. Hotels that are individually owned use the power of the owner to veto any change strategies and use that power to coerce employees to adapt to the changes.

Three managers, all from Malaysia, noted how certain individuals used their informal power to interfere with change implementation. One general manager reported that instigating change in the marketing department was often problematic due to the head of sales' close relationship with the hotel owner. His solution to the problem was to transfer the head of sales to another department prior to making changes in the department.

The next hotel discussed how the close relationship between the housekeeping manager and the hotel owners had prevented the general manager from firing him. The relationship

has also allowed the housekeeping manager to stop changes that were initiated by the general manager. The general manager admitted to leveraging on the relationship with the owner to get things done more efficiently.

Another hotel manager claimed that the close family ties between the general manager and the hotel owner has helped the general manager to expedite change in the hotel. However, most programs would have to be approved by the owner first.

#### ***4.3.4.3.3 Support from Other Networks***

Sub dimension three refers to the networks involved in the hospitality industry, and mainly involves external stakeholders who affect change strategies and implementation.

Four hotels mentioned that hotel owners or head office as the main external stakeholders, mainly because these stakeholders are not involved in day-to-day operations. One hotel manager claimed there is a strong network amongst all hotels in the chain, which provides good support for any discussions and advice on strategies, policies and procedures.

There were no discussions about other organisations that impact on hotel strategies, be it from the private or public sector. One hotel did mention the role of developing stronger ties with other hoteliers via associations or personal contacts, but this was mainly as a support for information rather than a tool to expedite change.

Four managers discussed the importance of MAH (Malaysia Hotel Association) as one support agency to help managers to keep abreast of current environmental conditions. However, the association itself does not have power to affect any hotel strategies.

#### ***4.3.4.3.4 Political Skills***

Sub-dimension four is political skills, which refer to the leading change's political ability to handle change. It incorporates how the change leader is able to manoeuvre and gain support from key individuals to expedite change. Only one hotel claimed that the general manager had to be sensitive towards the owner, where the close working relationship helps with the change efforts.

#### 4.3.4.4 RF4: Implementation Capacity

The fourth receptivity factor in the ORC theory is implementation capacity, which consists of four sub-dimensions. **Table 4.8** illustrates the findings for each of the sub-dimensions.

**Table 4.8 Content Analysis of Interviews**

	Hotel 1	Hotel 2	Hotel 3	Hotel 4	Hotel 5	Hotel 6	Hotel 7	Hotel 8	Hotel 9	Hotel 10	Hotel 11	Hotel 12	Hotel 13	Hotel 14
Country of Origin	Malaysia										United Kingdom			
Star Ratings	3*	3*	4*	4*	4*	4*	4*	4*	5*	5*	2*	4*	4*	5*
Dimension 1: Mechanism Used by Leading Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dimension 2: Speed of Implementation	X	X	X	X	X	X			X	X		X	X	
Dimension 3: Behaviour of Stakeholders			X		X	X							X	X
Dimension 4: Strategies for Managing Change			X	X	X	X				X		X	X	

##### 4.3.4.4.1 Mechanism Used by Leading Change

There are many ways hotels attempt to manage and implement change. The discussion of mechanisms used in change implementation is closely linked to the discussion from change leader's action in the leading change factor.

All fourteen managers discussed various change mechanism used in leading change, with the most popular one being a good communication strategy. Six hotels discussed the importance of formal communication channels such as question and answer (Q&A) session and open forums. One hotel owner explained how the use of open forums and Q&A sessions is the best tool to expedite change implementation. The top management team and the owner chair each session. These forums allow employees to address their

issues, fear and reservation as use it as a tool for feedback and recommendations on implementation success or failures.

#### ***4.3.4.4.2 Speed of Implementation***

The next sub-dimension relates to how the speed of implementation affects the quality of the change implementation. If changes happen too fast, employees might not be ready for it, thus creating an obstacle to change by increasing resistance among the employees. Nevertheless, two hotel managers claimed it was sometimes necessary to implement change fast. To do so, they have to rely on formal policies, procedures and power to implement these changes.

One manager claimed their employees were able to change relatively fast because the employees were well trained and knew what to do. The manager was confident that as long as the changes were not too drastic, employees would be able to adapt to changes.

#### ***4.3.4.4.3 Behaviours of Stakeholders***

Behaviour of stakeholders relates to actions taken by other stakeholders towards the change initiatives. Only five interviewees discussed this point. These hotels claimed that the employees were used to change and most were responsive. One of the hotel managers claimed that as long as the employees are receptive towards change, the rate of change would be fast.

#### ***4.3.4.4.4 Strategies for Managing Change***

The final sub-dimension for this receptivity factor relates to strategies for managing change. It involves change implementation that allows the organisation to be more responsive and receptive to change. One of the strategies discussed was the constant evaluation of organisation vision and mission. This evaluation ensures that the hotel is always evolving with the environmental demands. Another strategy is to create an organisational culture that is open to change. The hotel constantly makes small changes to help employees feel comfortable with change. Employees are often transferred to other departments to enhance their propensity to adapt to new changes and environments.

The final strategy outlined is the use of a mentor or buddy system to enhance flexibility in the organisational culture. The head of departments would select the best employees and let new employees shadow them to learn the system or procedures.

#### 4.3.4.5 RF5: Possibility Space

The final receptivity factor is possibility space which is divided into four sub-dimensions.

**Table 4.9** illustrates the findings from the interviews regarding this factor.

**Table 4.9 Content Analysis of Interviews**

	Hotel 1	Hotel 2	Hotel 3	Hotel 4	Hotel 5	Hotel 6	Hotel 7	Hotel 8	Hotel 9	Hotel 10	Hotel 11	Hotel 12	Hotel 13	Hotel 14
Country of Origin	Malaysia										United Kingdom			
Star Ratings	3*	3*	4*	4*	4*	4*	4*	4*	5*	5*	2*	4*	4*	5*
Dimension 1: No Universal Best Practice	X	X	X	X	X	X	X	X	X	X		X	X	X
Dimension 2: Path Dependency	X		X	X	X	X		X		X		X	X	
Dimension 3: Choice	X	X	X	X	X	X	X	X	X	X		X	X	X
Dimension 4: Organisational play	X	X	X	X	X	X	X	X	X	X		X	X	X

##### 4.3.4.5.1 No Universal Best Practice

The first sub-dimension is no universal best practice. Thirteen hotels claimed there was no standard best practice for managing hotels. However, there are various departments which have the same operations. All hotels have the flexibility to decide how to operate. According to the managers interviewed, the operational aspects of the hotel are fairly standard and most employees well-trained within their department.

There are numerous university and colleges which provide skills and education for a knowledgeable and well trained workforce. However the general manager of one five star hotel in Malaysia claimed that,

*“it is the role of the general manager to steer the hotel in the right direction. The hotel is like an aeroplane, where the pilot controls 50%*

*of the flight and the rest is on auto-pilot mode. The pilot's real job is to overcome problems that arise during the flight. Most of the time the front liners (the assistant and supervisors) run the show."*

#### **4.3.4.5.2 Path Dependency**

From the interview data, two new themes (or sub dimensions) emerged which were not previously apparent in the literature. The first is the role of culture in inhibiting or expediting change and the second is the role of existing practices and systems which affect change.

The first theme is closely related to the discussion of identification with culture. Six hotel managers claimed that people and culture are the biggest inhibitor to change. This relates closely to a hotels culture. Some the interviewees discussed the difficulty of implementing new changes because the changes affected the way things were done in the hotel. One manager claimed that drastic changes implemented by new management had caused many employees to leave the hotel.

Three hotels mentioned culture in a more positive tone, where they claimed that their hotel's culture is very open and receptive towards change. One interviewee believed that the top management's attitude towards change is important to set the overall response to change.

The second theme relates to existing practices. Two interviewees discussed how their hotel's existing practices became the main inhibitor to change. A hotel manager advised that the level of bureaucracy in the hotel hinders him from being more responsive to external environmental demands. Another manager claimed his hotel systems and procedures were the hardest to change. This was mainly due to the level of capital that was invested in the systems.

#### **4.3.4.5.3 Choice**

The third sub-dimension relates to the idea of organisations having extra capacity to change and grow. This sub-dimension has strong similarities/overlap with discussion on strategies for managing change in the implementation capacity factor. Thirteen hotels discussed the importance of this sub-dimension in change implementation.

The first part of choice refers to how well the hotels equip themselves to overcome external environmental change. The managers of three hotels claimed their hotels have a proactive culture that allows them to cope with changes. One claimed that the hotel's vision is directed towards being proactive towards environmental conditions. Other hotels claimed that the top management always keeps up-to-date with current issues and trends.

Strategies related to capacity building were mentioned by ten managers and each indicated this is achieved through the promotion of learning. Promotion of learning is possible through various methods, being; 1) in house training, 2) department transfers, 3) sending employees to other chain, 4) mentoring, and 5) external training. Five hotels emphasised the importance of the human resource department as a tool to come up with strategies to enhance employee propensity to learn and change. Another key tool mentioned by some is creating operating procedures to allow response to change to be part of the hotel process.

One manager claimed that the hotel often promotes employee learning and development. Another claimed the hotel chain allows knowledge transfer between hotel properties within the same region. Four hotels mentioned the role of department transfers as means to enhance adaptability and flexibility. Cross training is encouraged in these hotels and this is especially evident in the one star to three star hotels where a small number of employees makes it hard for the hotel to specialize.

Five hotels discussed the role of hotel colleges and universities as the main tool to provide a more flexible and adaptive workforce. Students gain formal knowledge about the job functions in all departments, and this prior knowledge allows the hotel greater flexibility.

Other forms of external training are focused towards the top management team. The manager requires more specialised training, where one manager claims:

*"... if top management are well trained with good experience, he/she would be able to pass it down to his/her employees. They are the ones to instil the passion in employees and passion is the key to hotel's success" (4 star hotel manager, United Kingdom)."*

Another important factor is knowledge transfer. Only one hotel raised this point. The manager of a four-star chain hotel claimed the hotel chain allows knowledge transfers among the hotels in the region. He described two incidents where hotel employees were sent to other hotels to learn different aspects of their job function or to enhance their skills and capabilities. The hotel chain encourages exchange of ideas between hotel properties. Doing so achieves diversity in employees experience and knowledge. It also allows the employees to contribute their expertise to other hotels.

#### ***4.3.4.5.4 Organisational Play***

Organisational play occurs when a hotel weighs up two factors: path dependency and choice. The definition of this particular sub-dimension is tautological with the definition of both path dependency and choice. Thus, there is a high degree of overlap in discussions between the three sub-dimensions in this factor.

For example, one strategy used to develop organisational play is through the enhancement of employee's responsiveness and adaptability to new practices. There are quite a number of overlaps between this sub-dimension with a few other sub-dimensions which are: 1) cross training, 2) knowledge transfer, 3) supportive organisational culture, 4) recruitment of hotel students, 5) mentoring, and 6) external training.

#### **4.3.4.6 Other Receptivity Items**

One final question relating to receptivity involves the identification of other receptivity factors that hoteliers felt this study had neglected. There was no mention of other receptivity factors; most of the discussion revolved around the role of culture and creating the right attitude towards change. There were some discussions on individual level receptivity. However, the current study is focused on organisational level.

The analysis of the interview data revealed that though each receptivity factor is distinct and relevant in the hospitality industry both in United Kingdom and Malaysia, there are some overlaps in the sub-dimensions. Discussion of overlap has been addressed in the previous section. The purpose of the current section is to summarize the overlapping sub-dimensions.

A total of nine overlaps were identified. They are; 1) identification with culture (ideological vision) and leader action (leading change), 2) identification with culture

(ideological vision) and choice (possibility space), 3) identification with culture (ideological vision) and path dependency (possibility space), 4) leader action (leading change) and mechanisms for leading change (implementation capacity), 5) behaviour of stakeholder (implementation capacity) and choice (possibility space), 6) behaviour of stakeholders (implementation capacity) and path dependency (possibility space), 7) strategies for managing change (implementation capacity) and choice (possibility space) and 8) organisational play (possibility space) and choice (possibility space), 9) organisational play (possibility space) and path dependency (possibility space). **Table 4.10** summarizes the overlaps which occurred between the sub-dimensions.

**Table 4.10 Summary of Overlaps between Sub-dimensions**

Factors and Sub-dimensions		Overlapping Factors and Sub-dimensions	
Receptivity Factor	Sub-dimensions	Receptivity Factors	Sub-dimensions
Ideological Vision	Identification with culture	Leading Change Possibility Space Possibility Space	Leader Action (managerial ideologies) Choice Path Dependency
Leading Change	Leader Action	Implementation Capacity	Mechanisms for leading change
Implementation Capacity	Behaviours of Stakeholders	Possibility Space Possibility Space	Path Dependency Choice
Implementation Capacity	Strategies for managing change	Possibility Space	Choice
Possibility Space	Organisational Play	Possibility Space Possibility Space	Path Dependency Choice

In order to develop a more comprehensive item for each receptivity factor, this study has chosen to retain all the sub-dimensions in the designated receptivity factors.

#### 4.3.5 Item Generation Based on Findings

The literature review and findings from the interviews serve as a basis for the item generation. The process created two hundred and twenty items. **Table 4.11** summarises the number of items that were generated for each of the factors and sub-dimensions within each factor.

**Table 4.11 Receptivity Items**

<b>Dimensions</b>	<b>Sub-dimensions</b>	<b>Number of Items / Constructs</b>
RF1: Ideological vision	Coherence and Quality of Vision	12
	Identification with Culture	15
RF2: Leading change	Location of Decision Making	15
	Who Implements Change Program	4
	Change Leader's Action	23
	Change Leader Continuity	6
RF3: Institutional politics	Type of Network Used	7
	Power Relations	10
	Support from Other Networks	5
	Political Skills	5
RF4: Implementation capacity	Mechanism Used by Leading Change	17
	Speed of Implementation	8
	Behaviour of Stakeholders	8
	Strategies for Managing Change	12
RF5: Possibility space	No Universal Best Practice	14
	Path Dependency	10
	Choice	33
	Organisational Play	17
<b>Total items for the ORC</b>		<b>220</b>

The purpose of the first two steps is to create a strong basis for the development of items for each factor. The outcome is a list of items to measure each receptivity factor. These items will be brought forward to the next step which is to test each item's content validity and face validity.

#### **4.4 PART 3 – EXPERT JUDGE – CONTENT ADEQUACY AND FACE VALIDITY**

It is necessary to test each item's content and face validities. This was done through the process and knowledge of expert judges. This step is necessary as the two validity measures ensure that each item accurately measure the receptivity factors.

The expert judge process is divided into three stages. Stage one was conducted to ensure each the items were consistent and relevant to the theoretical definition that was coined by Butler (2003), and Butler and Allen (2008). Stage two was conducted to determine the

1) comprehensibility, 2) content adequacy, 3) ambiguity, 4) redundancy, and 5) relevancy of each item. Stage three was the re-evaluation of the same criteria but using a separate sample than that used in stage two. This ensured that each item was rigorously checked.

#### **4.4.1 Expert Judge Stage 1 – Review by the Author of the Theory of Receptivity to Change**

The 220 items were analysed by Dr. Michael J.R. Butler, who is the author of the ORC framework. This study used his version of the ORC framework, where each factor in the framework was from his paper in 2003. At this stage, Dr. Butler identified which items to retain or delete based on the item's relevancy to the definition of receptivity factor. He further checked the items for ambiguity and redundancy between items.

Based on his feedback, the number of items was reduced from 220 items to 141. A number of items were further removed due to redundancy issues. **Table 4.12** summarises the reduction in the number of items for each of the sub-dimensions and factors.

**Table 4.12 Changes for Receptivity Factors**

<b>Dimensions</b>	<b>Sub-dimensions</b>	<b>Number of items before expert judge</b>	<b>Number of items after expert judge</b>
RF1: Ideological vision	Coherence and Quality of Vision	12	8
	Identification with Culture	15	10
RF2: Leading change	Location of Decision Making	15	8
	Who Implements Change Program	4	4
	Change Leader's Action	23	11
	Change Leader Continuity	6	6
RF3: Institutional politics	Type of Network Used	7	7
	Power Relations	10	9
	Support from Other Networks	5	4
	Political Skills	5	4
RF4: Implementation capacity	Mechanism Used by Leading Change	17	10
	Speed of Implementation	8	7
	Behaviour of Stakeholders	8	5
	Strategies for Managing Change	12	10
RF5: Possibility space	No Universal Best Practice	14	11
	Path Dependency	10	8
	Choice	33	14
	Organisational Play	17	5
<b>Total items for the ORC</b>		<b>220</b>	<b>141</b>

#### **4.4.2 Expert Judge Stage 2 – Review by TRANSFORMATION Project Members**

In this second phase of expert judge, members of the TRANSFORMATION Project were forwarded the list of 141 items in order for them to individually and collectively evaluate the items. This is explained in detail in (3.7.2). The study followed the process used by Mesmer-Magnus *et al.* (2010). The items were reduced based on in-depth discussion

amongst expert judges. In this phase, the judges evaluated both sub-dimensions as well as the items.

Sub-dimensions were evaluated based on their relevance to the theoretical definition of each factor, clarity of meaning and redundancy with other sub-dimension. Items were evaluated based on the following criteria: 1) relevancy, 2) ambiguity, and 3) redundancy.

There were minimal changes in both sub-dimensions and items in ideological vision. In leading change factor, two sub-dimensions (location of decision making and who implement change program) were combined into one dimension – leading change capacity. The judges renamed the third sub-dimension from change leader’s action to leading change capabilities.

There were changes made to the institutional politics factor. The sub-dimensions were consolidated and reduced from four to two. The new sub-dimensions are; 1) stakeholder’s power and 2) coalition. Stakeholder’s power reflects individuals or groups with influence on an organisation’s change activities. Change leaders should make an effort to gain the support of these key individuals to expedite change within the organisation. The coalition sub-dimension refers to the identification of key individuals/groups from within or outside the organisations, and efforts from the change leader to leverage on these powers. This definition is similar to the “inter-organisational network” factor in Pettigrew *et al.* (1992) ORC framework.

The fourth receptivity factor underwent numerous changes. Some sub-dimensions were renamed. “Mechanisms used by leading change” was changed to change mechanisms, and behaviour of stakeholders was changed to stakeholder’s involvement.

There were minor changes made to the fifth receptivity factor, possibility space. **Table 4.13** summarizes the changes in sub-dimensions and number of items for the five receptivity factors. The end result culminated in 117 items being reduced from 141.

**Table 4.13 Receptivity Final Lists of Items**

<b>Dimensions</b>	<b>Sub-dimensions</b>	<b>Number of items prior to expert judge</b>	<b>Sub-dimensions</b>	<b>Number of items after expert judge</b>
RF1: Ideological vision	Coherence and Quality of Vision	8	Coherence and Quality of Vision	7
	Identification with Culture	10	Identification with Culture	8
RF2: Leading change	Location of Decision Making	8	Leading Change Capacity	8
	Who Implements Change Program	4	Leading Change Capabilities	9
	Change Leader's Action	11		
	Change Leader Continuity	6	Leading Change's Continuity	6
RF3: Institutional politics	Type of Network Used	7	Stakeholder's Power	10
	Power Relations	9	Coalition	10
	Support from Other Networks	4		
	Political Skills	4		
RF4: Implementation capacity	Mechanism Used by Leading Change	10	Change Mechanism	11
	Speed of Implementation	7	Stakeholder's Involvement	7
	Behaviour of Stakeholders	5		
	Strategies for Managing Change	10	Strategies for Managing Change	10
RF5: Possibility space	No Universal Best Practice	11	No Universal Best Practice	9
	Path Dependency	8	Path Dependency	7
	Choice	14	Choice	10
	Organisational Play	5	Organisational Play	5
<b>Total items for the ORC</b>		<b>141</b>		<b>117</b>

#### **4.4.3 Stage 3 – Questionnaire**

A total of one hundred and seventeen items were included in the final scale to be evaluated in the third phase of the expert judge. This study used the methodology recommended by Zaichkowsky (1985), where items were evaluated through the use of a questionnaire. The items were then rated by the expert judges based on the relevancy of

items to the theoretical definition. The rating scale involved five measures ranged from “representative” to “not representative” (Hardesty & Bearden, 2004).

#### 4.4.3.1 Inter-coder Reliability

As part of the questionnaire evaluation, the first step was to determine the level of agreement between the judges by using the intra-class correlations coefficient (ICC). Findings indicated that the single measure ICC value is .551 ( $p < .001$ ) suggesting that each judges rated the items differently. This indicated a low level of inter-coder consistency on 117 items. On the other hand, the average measure for the scale is .880 ( $p < .001$ ) indicating that the average measure is relatively high, showing the mean rating for each item is stable.

**Table 4.14 Intra-Class Correlations**

	Intraclass Correlational	95% Confidence Interval		Sig
		Lower Bound	Upper Bound	
Single Measures	.551	.473	.631	.000
Average Measures	.880	.843	.911	.000

The average measure for the ICC scores for each of the sub-dimensions was above the .60 cut-off point recommended by Hardesty & Bearden (2004). This suggests that there was a high inter-rater reliability among the judges.

#### 4.4.4 Analysis of Item Reduction

Hardesty and Bearden (2004) recommended the use of two methods for item retention; first is the sum score rule method and the other is the complete rule methodology. In the study, the outcome of the two methods for item retention found only minor differences. The complete rule found two additional items to be retained which the sum score rule did not include. Both items were in the implementation capacity factor. However, due to the small number of items in the final two sub-dimensions in possibility space, this study has retained an additional item in choice and two items in organisational play.

## 4.5 Final List of Measures for Each of the Receptivity Factors

As a result of the steps undertaken in this first phase of scale development a total of seventy-six items were included in the final scale. **Table 4.15** lists all items for each receptivity factor for the ORC theory.

**Table 4.15 Final items for ORC – Scale Development**

<p><b>RF1: IDEOLOGICAL VISION</b></p> <p><b>Coherence and Quality of Vision</b></p> <ol style="list-style-type: none"> <li>1 My organisation's vision is clear to all employees.</li> <li>2 The vision sets a future direction for my organisation.</li> <li>3 The vision generates a need for change for my organisation.</li> <li>4 The top management has always considered the organisation's vision when developing new strategies.</li> <li>5 The change programme is in line with my organisation vision.</li> </ol> <p><b>Identification with Culture</b></p> <ol style="list-style-type: none"> <li>1 Everyone who has an interest in the organisation shares the same beliefs about change.</li> <li>2 The change strategies arise from the interests of all these individuals/groups.</li> <li>3 The change strategies fit the existing organisational culture.</li> <li>5 My organisation's vision has made adapting to change part of the organisational culture.</li> <li>6 I find that my organisation's vision generates employee commitment to change</li> </ol>
<p><b>RF2: LEADING CHANGE</b></p> <p><b>Leading Change Capacity</b></p> <ol style="list-style-type: none"> <li>1 My organisation would always appoint an individual as the change programme leader.</li> <li>2 The change leader would often create a team to help manage the change programme.</li> <li>3 The team usually comprises of at least one senior manager.</li> <li>4 My organisation would give the change leader the power and authority to implement these changes.</li> </ol> <p><b>Leading Change Capabilities</b></p> <ol style="list-style-type: none"> <li>1 The change leader's behaviour influences the change implementation success.</li> <li>2 The change leader's political skills influence the change implementation success.</li> <li>3 The change leader's knowledge on change management enhances change implementation success.</li> </ol>

- 4 The change leader's communication skills are crucial to the change implementation success.
- 5 Those who lead the change programme show strong commitment toward it.

**Leading Change Continuity**

- 1 My organisation would appoint successor(s) who would continue to manage the change programmes.
- 2 The change leader would be able to sustain the change strategies even when there is a reshuffle in the top management.
- 3 The length of tenure of the top management may affect the implementation of change.
- 4 Most often, the top management is appointed internally.
- 5 The top management appointed internally is more likely to continue the strategies/vision of previous top management.

**RF3: INSTITUTIONAL POLITICS**

**Stakeholder's Power**

- 1 The top management always uses its power to influence everyone in my organisation to implement change.
- 2 Employees have the power to influence the outcomes of the change programme.
- 3 There are key individuals/groups with the power to influence the change implementation.
- 4 Trade Unions have influence on the decisions related to change.
- 5 Special interest groups have influence on the decisions related to change.
- 6 Local communities have influence on decision related to change.

**Coalitions**

- 1 The change leader makes an effort to identify influential individuals/groups within my organisation.
- 2 The change leader would use their relationship with this individuals/group to implement change.
- 3 The change leader would use his/her relationships with external contacts (government, media, or other influential people) to implement change.
- 4 The change leader would form alliances with these individuals to gain support.
- 5 The change leader formalizes participation procedures for all these individuals/groups.
- 6 The change leader would use rules and policies to gain compliance of all employees.

**RF4: IMPLEMENTATION CAPACITY**

**Change Mechanism**

- 1 The change leader would use my organisation's vision to implement changes.
- 2 My organisation is always open about discussing issues relating to change.
- 3 Employees are well informed of the change programme's progress.
- 4 The change leader would always seek agreement from employees involved with changes.

- 5 My organisation would provide continuous support for employees involved in change.
- 6 My organisation rewards employee efforts to change.
- 7 My organisation seldom uses force to get employees to comply with changes.
- 8 The change leader always uses different communication platforms (dialogue, forums, seminars, etc.) to inform all the employees of change.
- 9 My organisations always have informal events to allow informal communication between top management and employees.

#### **Strategies for Managing Change**

- 1 The strategies to manage change are clearly defined.
- 2 The top management and change leader has been sent to training relating to change management.
- 3 The top management has always adopted change management tools to facilitate change implementation.
- 4 The organisation always divides the change programmes into achievable targets.
- 5 The change leader is given less workload so that they could concentrate on the change programme.
- 6 The organisation always rewards employee's efforts to adapt to the changes.

#### **Stakeholder's Involvement**

- 1 Those who are affected by the change programme always give feedback to the change leader.
- 2 Support from employees would facilitate change implementation.
- 3 Support from trade unions would facilitate change implementation.
- 4 Support from local communities would facilitate change implementation.

### **RF5: POSSIBILITY SPACE**

#### **No Universal Best Practice**

- 1 The owner/headquarters does not enforce conformity on the group's best practices.
- 2 Individual organisations should be allowed to decide on the future strategies of their organisation.
- 3 The industry has no established best practices for managing the business.
- 4 Most organisations in this industry do not depend on the same strategy to improve their performance.

#### **Path Dependency**

- 1 My organisation continuously reviews past success and failures.
- 2 The success of future strategies is dependent on my organisation's capability to learn from the past.
- 3 My organisation is able to adapt old practices to fit with new innovative practices.
- 4 Interaction between new practices and existing practice would enhance my organisation's capabilities.

**Choice**

- 1 My organisation is well equipped to cope with environmental changes (i.e. recession) over time.
- 2 My organisation has the capacity to absorb new practices.
- 3 My organisation culture is very adaptive to change.
- 4 My organisation's systems are flexible and able to accommodate new changes.
- 5 My organisation promotes knowledge transfer between different departments.
- 6 My organisation encourages employees to learn.
- 7 Most of the employees are multi-skilled.

**Organisational Play**

- 1 My organisation is very responsive to new practices.
- 2 The organisation has the capacity to absorb new practices.
- 3 The employees are inclined towards new practices.
- 4 The organisation promotes innovation amongst its employees.
- 5 The organisational culture promotes creativity.

## 4.6 CONCLUSION

This chapter has discussed the development and refinement of the item pool for each receptivity factor. The most important issue that has been addressed by this chapter was the approach to item generation. This study has opted to use the deductive approach, where the development of the item was based on the theoretical framework developed by Pettigrew *et al.* (1992) and further refined by Butler (2003) and Butler and Allen (2008).

A semi-structured questionnaire was used as a method to address adopting the ORC theory to another research context. Issues relating to relevancy to new context and new receptivity factors prevalent in this context were dealt with using this method. The study found that all receptivity factors were relevant in the hospitality industry and no new factors emerged from the interviews. There were however, some differences in the sub-dimensions and themes within each factor.

The list of items generated was then tested for content adequacy and face validity. The use of the expert judge method refined each factor. To ensure a robust list of items, this study conducted three stages of expert judge. The final outcome of this first phase in scale development was a total of seventy-six items which represent five receptivity factors.

# Chapter 5

## Phase 2: Scale Development

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### 5.1 INTRODUCTION

The second phase of the research methodology is the scale development phase which examines the reliability and validity of the items generated (Hinkin, 1995). Scale development is the focus of this chapter. The chapter is organised according to the steps undertaken in the process of scale development which involves three steps. The first step is to construct the psychometric properties of the scale and questionnaire design. The second step is scale construction, where item retention or reduction is based on an item's ability to demonstrate high levels of reliability and validity (convergent and discriminant validity) (Reise *et al.*, 2000). The third step is scale evaluations, where the remaining items are re-tested using similar methods but using a separate sample. Furthermore, re-testing also tests for the nomological validity of the items. **Figure 5.1** illustrates the steps in this phase.

*Figure 5.1 Phase 2 Research Design*

<b>PHASE 2: SCALE DEVELOPMENT</b>	
<p>Step 1: Scale Construction</p> <p>Step 2: Scale Development</p> <p>Step 3: Scale Evaluations</p>	<p><b>All three steps are analysed using the same sample set. The sample is split into two to be analysed separately in step 2 and 3.</b></p> <p><b>Sampling Procedure:</b> Random Sampling  <b>Sample:</b> 1) MBA and Postgraduate Students &amp; 2) Employees from public and private sector in Malaysia  <b>Issues in Sampling:</b> Student Sampling  <b>Purpose:</b> 1) to examine the degree to which the operationalization of each measure is similar to other measure that are theoretically similar or dissimilar, 2) to determine if each items demonstrate acceptable levels of internal consistency, convergent validity, discriminant validity and nomological validity, 3) to determine the performance of each item in relation to other construct.</p>

The analysis undertaken in this phase was based on one sample that is split into two sets. The first set of the sample is used to for the second step and the second set is used for the scale evaluation step (Anderson & Gerbing, 1988).

## **5.2 STEP 1 – SCALE CONSTRUCTION**

This step discusses the development of the questionnaire, where all the items generated from the previous phase will be included in a questionnaire to be distributed to a set of respondents (refer to chapter 3, section 3.8.2.1) discuss the data collection strategy.

Scale construction addresses issues relating to 1) number of items per factor, 2) assignment of psychometric properties and 3) the use of negatively worded items. Hinkin (1995) cautioned researchers to be mindful of the number of items. Too many items can create respondent fatigue and too few items could affect construct reliability and validity (Hinkin, 1995). The number of items also affects the dimensionality within each construct. During the item generation phase, this study identified several sub-dimensions for each of the five receptivity factors. Though the sub-dimensions provide a good guide, the ability of each sub-dimension to become a first-order factor is still questionable. Determining the psychometric properties is based on common practice in management literature, where this study applied the five point response categories for each item.

This study will not be using any negatively worded items mainly because its use has been claimed to affect internal consistency, factor structures and other statistics (Barnette, 2002).

## **5.3 PRELIMINARY DATA ANALYSIS**

All 114 items from the process undertaken and explained in Chapter 4, with 519 cases were fed into SPSS PAWS 18 statistical software and analysed for 1) missing data, 2) outliers, 3) skewness and kurtosis and 4) univariate and multivariate normality.

### **5.3.1 Missing Value Analysis (MVA)**

The first treatment of missing data is to classify them systematically using the Missing Value Analysis (MVA). The analysis reveals that 455 cases (87.7 %) had missing values. All items except for EXT01 and EXT14 were completely filled. A further listwise investigation revealed that:

- 22 respondents answered 14 items - 9.6% of the questionnaire (cases: 15, 49, 68, 80, 84, 113, 116, 119, 134, 155, 161, 173, 178, 193, 223, 224, 225, 227, 230, 233, and 242);

- 13 respondents answered 46 items – 31.7% of the questionnaire (cases: 51, 53, 63, 104, 106, 116, 153, 166, 170, 201, 206, 219, and 278);
- 2 respondents answered 56 items – 38.6% of the questionnaire (cases: 88, 99);
- 1 respondent answered 70 items – 48.3% of the questionnaire (case: 279);
- 6 respondents answered 81 items – 55.9% of the questionnaire (cases: 50, 67, 103, 105, 149, 165);
- 5 respondents answered 98 items – 67.6% of the questionnaire (cases: 128, 129, 147, 189, 245); and
- 2 respondents answered 116 items – 80% of the questionnaire (cases: 140, 272).

A further analysis of EM estimation revealed that the missing values were Missing Complete at Random (MCAR) with Little's MCAR test; Chi square = 665.051 df = 662 sig = .459 (> than .5 indicated that observed pattern does not differ from random pattern) (Hair *et al.*, 2010; Little, 1988), which allows the data to be imputed (Little, 1988).

### **5.3.2 Deletion and Imputation of MCAR Data and Outliers**

Overall, there were 55 cases of MCAR missing data. From the results of the MVA, 22 cases were deleted and 43 cases needed to be imputed. The 43 cases were imputed with EM algorithm. By combining both listwise and EM algorithm this study minimized specific concerns of any single technique discussed by Hair *et al.* (2010).

The results showed evidence that univariate outliers existed but they were below the  $\pm 3$  standard deviations, which was at an acceptable range and consistent with previous research (see Ng & Houston, 2009). Therefore none of the items were deleted.

### **5.3.3 Descriptive Statistics, Univariate and Multivariate Normality**

The grand mean for all items is 3.29 with Standard Error of .045. Skewedness and kurtosis were negative indicating a heavy right tail distribution with platykurtotic shape. In this case, normality assumption was violated for further multivariate analysis. Kolmogorov-Smirnov and Shapiro-Wilk's test of normality indicated that all items were significant  $p < .05$ .

### **5.3.4 Comparability and Division of the Sample**

As explained in Chapter 3 (3.8.2.1) the sampling frame for this study consisted of MBA students and employees from various organisations. Data were collected using two collection methods, web-based survey and paper based survey. An independent sample t-test was conducted between the samples and methods to determine if the samples can be combined to create a bigger sample for further analysis.

111 surveys were collected from MBA students and 386 collected from employees. The Levene's test for equality of variance between the MBA students and employees revealed that 31 items were significant ( $p < .05$ ), where 16 were significant at two tailed test ( $p < .05$ ). This accounts for only 16.5% of the total items which allowed the two samples to be combined for further analysis.

159 surveys collected via survey monkey and 338 surveys collected via paper based. The Levene's test for equality variance revealed that 27 items were significant ( $p < .05$ ) and 25 were significant at two-tailed test ( $p < .05$ ). The small percentage (25.8%) allowed this study to combine the two samples.

The total samples collected for this phase is 497. Due to the large number, this study divided the sample into half (Gerbing & Anderson, 1988). The first half (250) would be used for exploratory item reduction and the second half (247) to be used for validities and reliability analysis.

## **5.4 STEP 2 – SCALE CONSTRUCTION (1<sup>ST</sup> SAMPLE)**

Each of the five receptivity factors were defined separately in the ORC framework (Butler, 2003; Butler & Allen, 2008), which was carried through in the development of items in the previous phase (see Chapter 3, Section 3.8.4). The purpose of this current phase is to reduce the number of items. This is achieved by removing items with poor psychometric properties, using factor analysis (EFA).

Conway & Huffcutt (2003) suggested two purposes for the EFA; one is to help identify the underlying construct and the other for the item reduction. The decision to use either Principal Component Analysis (PCA) or Principal Axis Factoring (PAF) is based on the research goals (Conway & Huffcutt, 2003; Fabrigar *et al.*, 1999). The PCA is commonly used to reduce the number of variables in a linear combination which retains as much of

the original measure's variance as possible. Therefore, the components extracted contain a mixture of common and unique variance (Conway & Huffcutt, 2003).

This study ran PCA with Varimax rotation on each of the five receptivity factors separately to ensure the final list of items truly reflected the theoretical definition of each factor. Items with low factor loading and low communalities value would be removed from the scale. The list of items would then be tested for its reliability. In this analysis, items will be removed if the item-to-total score is below .50 and inter-item correlation scores are below .30 (Hair *et al.*, 2010).

#### **5.4.1 RF1: Ideological Vision**

The receptivity factor, ideological vision underwent three levels of factor analysis. Hair *et al.* (2010) suggests that with any removal of items in EFA should be followed with another EFA to determine the remaining items reliability and validity.

The first factor analysis for ideological vision resulted in 2 factors, with KMO test of sampling adequacy of .884 and a significant Bartlett's test of sphericity ( $p < .05$ ). One item (VIS 10) was removed due to low inter-item value.

The first model re-specification (second PCA) led to the removal of two items (VIS 07 and VIS 08) has low communalities value (.431 and .450). The second model re-specification KMO value was .873 and the Bartlett's test of sphericity was significant. The analysis showed there is only one dimension for this factor which consisted of 7 items (Refer to **Table 5.1**).

#### **5.4.2 RF2: Leading Change**

The first KMO for this factor was .924 and Bartlett's test of sphericity was significant. Two items had low communalities value (LEAD 10 and LEAD11) and two items had low inter-items correlations value (LEAD10 and LEAD13). This led to the removal of three items; LEAD10, LEAD11 and LEAD13.

The first model re-specification KMO was .929 and the Bartlett's test of sphericity was significant. Two items have low communalities value (LEAD12 and LEAD14) and were removed from the scale.

The second model re-specification KMO was .917 and Bartlett's test of sphericity was significant. All the items loaded into one factor, which suggests the factor is unidimensional (Refer to **Table 5.1**).

#### **5.4.3 RF3: Institutional Politics**

The first KMO for this factor is .876. One item (POL02) was removed from the scale due to low communalities value and two items were removed (POL01 and POL04) due to low item-to-total value.

The KMO for the first model re-specification was .885. Two items (POL03 and POL05) were removed due to low communalities value. The KMO for the second model re-specification was .859 and the Bartlett's test of sphericity was significant. All the items loaded into one dimension with the lowest factor loading of .516 (refer to **Table 5.1**).

#### **5.4.4 RF4: Implementation Capacity**

The KMO for implementation capacity was .93. Two items (MEC10 and MEC14) were removed from the scale due to low communalities values. Another three items (MEC01, MEC07 and MEC17) were removed from the scale due to low item-to-total value.

The KMO for the first model re-specification was .919. Two items (MEC08 and MEC04) were removed due to low communalities values. The KMO for the second model re-specification was .901 and the Bartlett's test of sphericity was significant. All the items loaded into one dimension with the lowest factor loading of .514 (refer to **Table 5.1**).

#### **5.4.5 RF5: Possibility Space**

Possibility space KMO was .917 and Bartlett's test of sphericity was significant. One item (SPA07) was removed due to low factor loading and one item (SPA02) was removed due to low communalities value. Seven items (SPA01, SPA03, SPA04, SPA05, SPA06, SPA08 and SPA15) were removed from the scale due to low inter-item correlations and low item-to-total correlations values.

The nine remaining items were analysed using factor analysis with KMO of .902. One item (SPA09) was removed due to low communalities value. The second model re-specification KMO was .890 and Bartlett's test of sphericity was significant. All the items loaded into one dimension with the lowest factor loading of .573 (refer to **Table 5.1**).

#### 5.4.6 Conclusion from Principal Component Analysis (PCA) Results

The PCA was conducted as an initial analysis of data reduction and determination of dimensionality for each of the factors. This study found that all five receptivity factors are unidimensional. The PCA has also removed poorly performing items which led to the reduction of several items for each of factor; ideological vision items were reduced from ten to seven items, leading change items were reduced from fourteen to nine, institutional politics items were reduced from eleven to six, implementation capacity items were reduced from seventeen to ten and possibility space items were reduced from eighteen to eight. **Table 5.1** summarizes the list of items for the five factors.

**Table 5.1 PCA Results for All Receptivity Factors**

Codes	Item	Communalities	Component
<b>RF1: Ideological Vision</b>			1
1 VIS04	The top management has always considered the organisation's vision when developing new strategies.	.727	.853
2 VIS02	The vision sets a future direction for my organisation.	.704	.839
3 VIS01	My organisation's vision is clear to all employees.	.678	.824
4 VIS05	The change programme is in line with my organisation's vision.	.644	.803
5 VIS10	I find that my organisation's vision generates employee commitment to change	.560	.749
6 VIS03	The vision generates a need for change for my organisation.	.513	.716
7 VIS09	My organisation's vision has made adapting to change part of the organisational culture.	.500	.707
<b>RF2: Leading Change</b>			
1 LEAD05	The change leader's behaviours influence the change implementation success.	.727	.853
2 LEAD02	The change leader creates a team to help manage the change programme.	.655	.809
3 LEAD08	The change leader's communication skills are crucial to the change implementation success.	.654	.809
4 LEAD04	My organisation would give the change leader the power and authority to implement these changes.	.624	.79
5 LEAD07	The change leader's knowledge on change management enhances the change implementation success.	.617	.786

6	LEAD06	The change leader's political skills influence the change implementation success.	.616	.785
7	LEAD03	The team usually comprises of at least one senior manager.	.601	.775
8	LEAD09	The change leader shows strong commitment toward the change programme.	.600	.775
9	LEAD01	My organisation would always appoint an individual as the change programme leader.	.538	.733
<b>RF3: Institutional Politics</b>				
1	POL10	The change leader formalizes participation procedures with all these individuals/groups.	.736	.858
2	POL07	The change leader would use his/her relationship with these individuals/groups to implement change.	.704	.839
3	POL06	The change leader makes an effort to identify influential individuals/groups within my organisation.	.682	.826
4	POL09	The change leader would form alliances with these individuals to gain support.	.635	.797
5	POL08	The change leader would use his/her relationships with external contacts (government, media, or other influential people) to implement change.	.597	.773
6	POL11	The change leader would use rules and policies to gain the compliance of all employees.	.516	.719
<b>RF4: Implementation Capacity</b>				
1	MEC05	My organisation would provide continuous support for employees involved in change.	.622	.789
2	MEC16	Those who are affected by the change programme always give feedback to the change leader.	.600	.775
3	MEC03	Employees are well informed of the change programme's progress.	.577	.76
4	MEC12	Top management has always adopted change management tools to facilitate change implementation.	.575	.758
5	MEC09	The strategies to manage change are clearly defined.	.568	.754
6	MEC15	The organisation always rewards employees' efforts to adapt to the changes.	.554	.744
7	MEC13	The organisation always divides change programmes into achievable targets.	.527	.726
8	MEC02	My organisation is always open about discussing issues relating to change.	.525	.725
9	MEC11	Top management and change leader have been sent for training relating to change management.	.523	.723

10	MEC06	My organisation rewards employee efforts to change.	.514	.717
<b>RF5: Possibility Space</b>				
1	SPA12	My organisation's systems are flexible and able to accommodate new changes.	.694	.833
2	SPA11	My organisation culture is very adaptive to change.	.682	.826
3	SPA17	The organisation promotes innovation amongst its employees.	.664	.815
4	SPA16	The organisation has the capacity to absorb new practices.	.642	.801
5	SPA18	The organisational culture promotes creativity.	.640	.8
6	SPA10	My organisation has the capacity to absorb new practices.	.623	.789
7	SPA13	My organisation promotes knowledge transfer between different departments.	.575	.758
8	SPA14	My organisation encourages employees to learn.	.573	.757

## 5.5 STEP 3 – SCALE EVALUATIONS (2<sup>ND</sup> SAMPLE)

The remaining items from the previous step were assessed for reliability and validity using another independent sample (Gerbing & Anderson, 1988). The final test in this phase is the model development, second-higher order test and nomological validity. This will determine if the receptivity factors are first order factors that represent a second higher-order latent construct (see Ramani & Kumar, 2008). Nomological validity will be determined based on structural equation modeling analysis by using one antecedent and one outcome for the five receptivity factors.

### 5.5.1 Preliminary Analysis

Preliminary analysis was conducted prior to running the items through confirmatory factor analysis (CFA). The first analysis was the test for normality and the second was the common method variance (CMV) test.

Before proceeding to CFA in LISREL 8.8 this study transformed the raw data using Normal scores in LISREL. This was conducted on the second sample (N = 247).

The most common method to assess common method variance (CMV) is Harman's one-factor test. All the constructs (including antecedents and outcomes) were entered in exploratory factor analysis using the principal axis factoring (PAF) method with

unrotated solutions. This was done to determine the number of factors that accounted for variance in the examined constructs (Podsakoff & Organ, 1986). The results revealed 18 distinct factors with eigenvalues > 1.0 rather than one single factor. The 18 factors accounted for 71.704% of the total variance. The largest single factor did not account for majority of the variance, with its variance value of 32.758%. Therefore, there was no threat of common method variance evident in the items which comprise this questionnaire.

### 5.5.2 Reliability Assessment

The first step is to determine the reliability of each receptivity factor scale. To do so, the scale must attain Cronbach's alpha value of more than .70 (Nunnally, 1978), items must have an inter-item correlation value of > .30 and item-to-total value of > .50 (Hair *et al.*, 2010).

All five receptivity factors demonstrated high reliability as Cronbach's alpha far exceeded the recommended value of .70; ideological vision (.893), leading change (.927), institutional politics (.864), implementation capacity (.914), and possibility space (.903).

The items in each of factor demonstrate high values above the recommended values in the inter-item correlation matrix, which enhances the reliability of each factor.

### 5.5.3 Scale Refinement – Confirmatory Factor Analysis (CFA)

The next step is to analyse each of the receptivity factors using CFA. The objective is to further refine the scale and remove poorly performing items through the use of Modification Indices. Removing items with the highest modification indices (MI) would enhance the model fit (MacCallum, 1986; Ramani & Kumar, 2008).

For ideological vision, two iterations of CFA were required before model fit was achieved. In the process, two items with the highest MI (VIS09 = 65.316, VIS02 = 29.224) were removed from the scale. The fit measured after the 3<sup>rd</sup> iteration suggested reasonable fit according to the cut-off value provided by Bagozzi (2010) and Iacobucci, (2009). It showed that  $\chi^2 (5) = 4.739$  non-significant  $p = .449$ , with RMSEA = .0, SRMR = .016 which were < .05. Other goodness-of-fit statistics results were; NFI = .994, NNFI = 1.001 CFI = 1.000 GFI = .992, AGFI = .977 in which all were > .90. All t-values were > 1.964 (one-tailed). **Table 5.2** further summarizes items scale and statistics.

**Table 5.2 Ideological Vision – Scale and Items Statistics**

Construct Name and Items	M	SD	t- values	Std Error	Unstd $\lambda_x$	Std $\lambda_x$	$\Theta\delta$	r <sup>2</sup>	CR	AVE
<b>RF1: Ideological Vision</b>			6.146						<b>.830</b>	<b>.540</b>
<b>VIS01</b> My organisation's vision is clear to all employees	3.515	1.090			1.000	<b>.720</b>	.482	.518		
<b>VIS03</b> The top management has always considered the organisation's vision when developing new strategies	3.444	.987	1.928	.079	.869	<b>.763</b>	.418	.582		
<b>VIS04</b> The change programme is in-line with my organisation's vision	3.320	1.075	11.649	.096	1.116	<b>.826</b>	.319	.681		
<b>VIS05</b> My organisation's change policies are in-line with its vision	3.402	.958	1.743	.075	.804	<b>.749</b>	.439	.561		
<b>VIS10</b> I find that my organisation's vision generates employee commitment to change.	3.212	1.063	8.627	.091	.788	<b>.596</b>	.645	.355		

Five iterations of CFA were made for leading change factor before model fit was achieved. The iterations led to the removal of five items; LEAD05 (86.688), LEAD08 (85.712), LEAD06 (39.411), LEAD09 (18.737) and LEAD01 (13.518). The fit statistics of the fifth iteration showed that  $\chi^2 (2) = 1.345$ , non-significant  $p = .510$ , with RMSEA = .0, SRMR = .009 which were < .05. Other goodness-of-fit statistics results were; NFI = .998, NNFI = 1.004, CFI = 1.000, GFI = .997, AGFI = .996 in which all were > .90. All t-values were > 1.964 (one-tailed). **Table 5.3** further summarizes item scale and statistics.

**Table 5.3 Leading Change – Scale and Item Statistics**

Construct Name and Item	M	SD	t- values	Std Error	Unstd $\lambda_x$	Std $\lambda_x$	$\Theta\delta$	r <sup>2</sup>	CR	AVE
<b>RF2: Leading Change</b>			7.102		.064				<b>.861</b>	<b>.608</b>
<b>LEAD2</b> The change leader creates a team to help manage the change programme	3.409	.918		1.000		<b>.801</b>	.358	.642		
<b>LEAD3</b> The team usually comprises at least one senior manager	3.519	.948	12.732	1.070	.084	<b>.803</b>	.355	.645		
<b>LEAD4</b> My organisation would give change leader the power and authority to implement these change	3.401	1.014	12.443	1.194	.096	<b>.784</b>	.385	.615		
<b>LEAD7</b> The change leader's knowledge on change management enhances the change implementation success	3.485	1.015	11.477	1.109	.097	<b>.727</b>	.471	.529		

There was only one CFA iteration made for the institutional politics factor before model fit was achieved. The removal of POL06 (98.323) led to the following fit statistics;  $\chi^2$  (2) = 6.326, non-significant  $p = .042$ , with RMSEA = .094, SRMR = .022 which were < .05. Other goodness-of-fit statistics results were; NFI = .987, NNFI = .972, CFI = .991, GFI = .987, AGFI = .937 in which all were > .90. All t-values were > 1.964 (one-tailed). **Table 5.4** further summarizes item scale and statistics.

**Table 5.4 Institutional Politics – Scale and Item Statistics**

Construct Name and Item	M	SD	t- values	Std Error	Unstd $\lambda_x$	Std $\lambda_x$	$\Theta\delta$	$r^2$	CR	AVE
<b>RF3: Institutional Politics</b>			5.499		.054				<b>.847</b>	<b>.581</b>
<b>POL07</b> The change leader would use his/her relationship with these individuals/groups to implement change	3.447	.906		1.000		<b>.666</b>	.557	.443		
<b>POL08</b> The change leader would use his/her relationships with external contacts (government, media, or other influential people) to implement change	3.298	.986	1.142	1.400	.138	<b>.788</b>	.379	.621		
<b>POL09</b> The change leader would form alliances with these individuals to gain support	3.336	.942	1.145	1.280	.126	<b>.788</b>	.379	.621		
<b>POL10</b> The change leader formalizes participation procedures with all these individuals/groups	3.438	.906	1.244	1.201	.117	<b>.800</b>	.359	.641		

Five iterations were made for the implementation capacity factors, which led to the removal of five items; MEC12 (114.476), MEC16 (91.231), MEC15 (49.987), MEC11 (32.826) AND MEC06 (15.964). The fit statistics showed  $\chi^2 (5) = 1.403$ , non-significant  $p = .065$ , with RMSEA = .066, SRMR = .023 which were < .05. Other goodness-of-fit statistics results were; NFI = .987, NNFI = .985, CFI = .993, GFI = .983, AGFI = .950 in which all were > .90. All t-values were > 1.964 (one-tailed). **Table 5.5** further summarizes item scale and statistics.

**Table 5.5 Implementation Capacity – Scale and Item Statistics**

Construct Name and Item	M	SD	t-values	Std Error	Unstd $\lambda_x$	Std $\lambda_x$	$\Theta\delta$	$r^2$	CR	AVE
<b>RF4: Implementation Capacity</b>			8.182		.079				<b>.879</b>	<b>.595</b>
<b>MEC02</b> My organisation is always open about discussing issues relating to change	3.229	.964		1.000		<b>.866</b>	.250	.750		
<b>MEC03</b> Employees are well-informed of the change programme progress	3.260	.993	15.722	1.026	.065	<b>.838</b>	.297	.703		
<b>MEC05</b> My organisation would provide continuous support for employees involved in change	3.320	.963	13.633	.872	.064	<b>.757</b>	.427	.573		
<b>MEC09</b> The strategies to manage change are clearly defined	3.203	.931	11.876	.738	.062	<b>.685</b>	.530	.470		
<b>MEC13</b> The organisation always divides change programme into achievable target	3.221	.901	12.069	.699	.058	<b>.694</b>	.519	.481		

This study ran three CFA iterations for possibility space factor. The iterations led to the removal of the following items; SPA18 (63.678), SPA14 (33.716) and SPA17 (23.913). The fit statistics showed that  $\chi^2 (2) = .605$ , non-significant  $p = .739$ , with RMSEA < .001, SRMR = .008 which were < .05. Other goodness-of-fit statistics results were; NFI = .999, NNFI = 1.010, CFI = 1.000, GFI = .999, AGFI = .994, in which all were > .90. All t-values were > 1.964 (one-tailed). All values were above Bagozzi (2010) recommendations. **Table 5.6** further summarizes item scale and statistics.

**Table 5.6 Possibility Space – Scale and Item Statistics**

Construct Name and Items	M	SD	t-values	Std Error	Unstd $\lambda_x$	Std $\lambda_x$	$\Theta\delta$	r <sup>2</sup>	CR	AVE
<b>RF5: Possibility Space</b>			6.346		.070				<b>.825</b>	<b>.545</b>
<b>SPA11</b> My organisation culture is very adaptive to change	3.176	.943		1.000		<b>.748</b>	.441	.559		
<b>SPA12</b> My organisation's systems are flexible and able to accommodate new changes	3.141	.932	11.624	1.096	.094	<b>.841</b>	.293	.707		
<b>SPA13</b> My organisation promotes knowledge transfer between different departments	3.207	.935	8.328	.752	.090	<b>.572</b>	.673	.327		
<b>SPA16</b> The organisation has the capacity to absorb new practices.	3.361	.946	11.069	1.031	.093	<b>.766</b>	.413	.587		

#### 5.5.4 Convergent Validity

There were three methods used in this study to determine the scale’s convergent validity. First was through the analysis of the factor loading of each item in each of the five factors (Bargozzi, 1994; Fornell & Larcker, 1981). The second and third method occurred through the assessment of the composite reliability (CR) value and the AVE scores for each of the factors (Hair *et al.*, 2010).

The analysis of the factor loading demonstrated that all items had factor loading higher than .50 (Hair *et al.*, 2010), where two items (SPA13 and VIS10) have factor loading below .60. Three items have factor loading below .70; POL07, MEC09 and MEC13. The findings indicated that each of the factors demonstrated convergent validity where each of the items performed well at explaining the variance within each factor. **Table 5.7** summarizes the factor loading for each item.

**Table 5.7 Item Reliability and Convergent Validity**

<b>Construct Name and Items</b>	<b>Factor Loading</b>
<b>RF1: Ideological Vision</b>	
VIS01	.720
VIS03	.763
VIS04	.826
VIS05	.749
VIS10	.596
<b>RF2: Leading Change</b>	
LEAD02	.801
LEAD03	.803
LEAD04	.784
LEAD07	.727
<b>RF3: Institutional Politics</b>	
POL07	.666
POL08	.788
POL09	.788
POL10	.800
<b>RF4: Implementation Capacity</b>	
MEC02	.866
MEC03	.838
MEC05	.757
MEC09	.685
MEC13	.694
<b>RF5: Possibility Space</b>	
SPA11	.748
SPA12	.841
SPA13	.572
SPA16	.766

Convergent validity is achieved when the CR value is more than .70 and AVE value is more than .50 (Ashill & Jobber, 2010; Ewing & Napoli, 2005; Nunnally & Bernstein, 1994).

The CR value for each of the five receptivity factors scored above .70 where the lowest value was .825 for possibility space. The AVE value for each receptivity factor also scored above .50 with the lowest value at .540 for ideological vision. The findings from the analysis of CR and AVE values are summarized in **Table 5.8**.

**Table 5.8 Composite Reliability, Average Variance Extracted and Convergent Validity**

<b>Construct Names</b>	<b>CR</b>	<b>AVE</b>
Ideological Vision	.830	.540
Leading Change	.861	.608
Institutional Politics	.847	.581
Implementation Capacity	.879	.595
Possibility Space	.825	.545

### **5.5.5 Discriminant Validity**

Each of the five factors was then tested for discriminant validity. Discriminant validity is achieved when each of the constructs are different and not highly correlated with each other (Hair *et al.*, 2010). Two analyses for discriminant validity were conducted through the analysis of the AVE value (Fornell & Larcker, 1981) and the nested models (Gerbing & Anderson, 1988).

The first step is to determine the AVE value for each construct. The AVE value for each construct must exceed the squared correlations between the two latent constructs to achieve discriminant validity (Fornell & Larcker, 1981). The analysis demonstrated that all five factors discriminate with each other with the exception of implementation capacity and possibility space. The AVE value for implementation capacity was .545 and for possibility space was .596. The common variance shared value was .787, which was higher than the value of the AVE value of the two constructs. This suggests that discriminant validity was not achieved between the pair. **Table 5.9** summarizes the results from the AVE value test.

**Table 5.9 Discriminant Validity – AVE Analysis**

<b>Model</b>	<b>Factor 1 (Factor 2)</b>	<b>AVE Factor 1 (Factor 2)</b>	<b><math>\Phi^2</math></b>
Ideological Vision & Leading Change		.541 (.607)	.514
Ideological Vision & Institutional Politics		.541 (.581)	.236
Ideological Vision & Implementation Capacity		.539 (.597)	.426
Ideological Vision & Possibility Space		.540 (.542)	.457
Leading Change & Institutional Politics		.607 (.582)	.507
Leading Change & Implementation Capacity		.607 (.597)	.272
Leading Change & Possibility Space		.608 (.543)	.347
Institutional Politics & Implementation Capacity		.582 (.596)	.316
Institutional Politics & Possibility Space		.582 (.545)	.231
Implementation Capacity & Possibility Space		.596 (.545)	<b>*.787</b>

\* $\Phi^2 >$  AVEs

The analysis of the nested models determines the discriminant validity between two factors through the analysis of the chi-square. In order for the two constructs to discriminate against one another the unconstrained model's chi-square must be lower than the constraint model (Gerbing & Anderson, 1988). Furthermore the degree of change in chi-square value should be more than 3.841 with a degree of freedom (df) of 1.

The analysis of chi-square difference between the constraint and unconstrained model suggests that all pairs of receptivity factors have demonstrated discriminant validity. The analysis of the degree of change in chi-square also suggested that all the pairs demonstrated convergent validity. **Table 5.10** summarizes the change in chi-square with one degree of freedom (df) change.

**Table 5.10 Discriminant Validity – Nested Model**

<b>Paired Measurement Models</b>	<b><math>\chi^2</math> (df) (Phi-matrix Unconstrained)</b>	<b><math>\chi^2</math> (df) (Phi-matrix Constraint)</b>	<b><math>\Delta\chi^2</math> (df)</b>
Ideological Vision & Leading Change	36.743 (26)	64.525 (27)	35.068 (1)
Ideological Vision & Institutional Politics	88.262 (26)	133.726 (27)	45.464 (1)
Ideological Vision & Implementation Capacity	7.697 (34)	95.645 (35)	<b>*2.948 (1)</b>
Ideological Vision & Possibility Space	61.065 (26)	91.490 (27)	<b>*3.425 (1)</b>
Leading Change & Institutional Politics	26.889 (19)	78.126 (20)	51.237 (1)
Leading Change & Implementation Capacity	38.642 (26)	8.327 (27)	41.685 (1)
Leading Change & Possibility Space	37.525 (19)	83.373 (20)	45.848 (1)
Institutional Politics & Implementation Capacity	59.746 (26)	11.102 (27)	5.356 (1)
Institutional Politics & Possibility Space	31.580 (19)	95.262 (20)	63.682 (1)
Implementation Capacity & Possibility Space	4.045 (26)	65.242 (27)	25.197 (1)

\* $\Delta\chi^2$  (df=1) < 3.841

## **5.6 EXPLORATORY FACTOR ANALYSIS (EFA)**

Farrell (2010) suggested the use of EFA is a way to identify issues why certain factors fail to discriminate with each other. Items with high cross loading values between factors will have to be removed to enhance discriminant validity. Two pairs of receptivity factors in this study were analysed. The first pair was ideological vision and institutional politics and second pair was implementation capacity and possibility space.

Based on the EFA results between ideological vision and institutional politics, one item (VIS10) loaded into the two factors; ideological vision (.521) and institutional politics (.515). The results suggest the removal of the item.

The EFA results between implementation capacity and possibility space resulted in all items for both factors loaded into one factor instead of two. This suggested that all items were reflected by one latent construct.

## **5.7 CONFIRMATORY FACTOR ANALYSIS – CHANGE ORIENTATION**

In order to create a more parsimonious scale, this study has combined the implementation capacity and possibility space factors. The next step is to analyse the new scale using CFA to identify the best model fit for the new scale.

The new scale underwent two iterations before model fit was achieved. The first item removed was SPA12, with MI value of 44.026 and second item removed was MEC03 with MI value of 24.362. The fit statistics showed that  $\chi^2 (14) = 18.151$ , non-significant  $p = .200$ , with RMSEA = .036, SRMR = .024 which were < .05. Other goodness-of-fit statistical results were; NFI = .995, NNFI = .658, CFI = .997, GFI = .979, AGFI = .958 in which all were > .90. All T-values were > 1.964 (one-tailed). All values were above Bagozzi & Yi's (1988) recommendations. **Table 5.11** summarizes item scale and statistics.

**Table 5.11 Change Orientation - Scale and Item Statistics**

Construct Name and Items	M	SD	t-values	Std Error	Unstd $\lambda_x$	Std $\lambda_x$	$\Theta\delta$	r <sup>2</sup>	CR	AVE
<b>RF6: Change Orientation</b>									<b>.882</b>	<b>.520</b>
<b>MEC02</b> My organisation is always open about discussing issues relating to change	3.229	.964		1.000		.842	.291	.709		
<b>MEC05</b> My organisation would provide continuous support for employees involved in change	3.320	.963	12.881	.879	.068	.741	.45	.550		
<b>MEC09</b> The strategies to manage change are clearly defined	3.203	.931	11.858	.772	.065	.696	.515	.485		
<b>MEC13</b> The organisation always divides change programme into achievable target	3.221	.901	12.274	.741	.060	.715	.489	.511		
<b>SPA11</b> My organisation culture is very adaptive to change	3.176	.943	11.234	.759	.068	.668	.554	.446		
<b>SPA13</b> My organisation promotes knowledge transfer between different departments	3.207	.935	1.035	.682	.068	.610	.628	.372		
<b>SPA16</b> The organisation has the capacity to absorb new practices.	3.361	.946	13.131	.860	.066	.752	.434	.566		

The final scale to measure this factor included 4 items from implementation capacity and 3 items from possibility space. This factor was named change orientation.

## 5.8 RE-TEST OF CONVERGENT AND DISCRIMINANT VALIDITIES

The development of a new receptivity factor entails a re-analysis of convergent and discriminant validity for all the receptivity factors.

### 5.8.1 Reliability and Convergent Validities

The analysis of item reliability showed that all the factor loadings for each of the five factors exceeded the recommended .60 value (Falk & Miller, 1992). This suggested that all the factors achieved convergent validity. **Table 5.12** summarizes the factor loading value for the items.

**Table 5.12 Item Reliability and Convergent Validity**

<b>Construct Name and Items</b>	<b>Std <math>\lambda</math>s</b>
<b>RF1: Ideological Vision</b>	
VIS01	.725
VIS03	.773
VIS04	.813
VIS05	.750
<b>RF2: Leading Change</b>	
LEAD02	.801
LEAD03	.803
LEAD04	.784
LEAD07	.727
<b>RF3: Institutional Politics</b>	
POL07	.666
POL08	.788
POL09	.788
POL10	.800
<b>RF6: Change Orientation</b>	
MEC02	.842
MEC05	.741
MEC09	.696
MEC13	.715
SPA11	.668
SPA13	.610
SPA16	.752

The analysis of the CR and AVE values indicated that all the factors have CR values higher than recommended .70 values (Nunnally & Bernstein, 1994) and the AVE value was above recommended .50 value (Hair *et al.*, 2010). **Table 5.13** summarizes the CR and AVE value for each factor.

**Table 5.13 Composite Reliability, Average Variance Extracted and Convergent Validity**

<b>Construct Name and Items</b>	<b>CR</b>	<b>AVE</b>
Ideological Vision	.850	.586
Leading Change	.861	.608
Institutional Politics	.847	.581
Change Orientation	.882	.520

### 5.8.2 Discriminant Validity

The evaluation of discriminant validity was conducted through the analysis of the AVE value (Fornell & Larcker, 1981) and nested models (Gerbing & Anderson, 1988).

Each of the receptivity factors were tested in pairs. The AVE values for all pairs of factors demonstrated that each factor discriminated against one another. This is where the AVE value for each of the factor in the pair is larger than the common variance shared value for the pair. **Table 5.14** summarizes the AVE values and common variance shared values for each pair of factors.

**Table 5.14 Discriminant Validity**

<b>Model</b>	<b>Factor 1 (Factor 2)</b>	<b>CR Factor 1 (Factor 2)</b>	<b>AVE Factor 1 (Factor2)</b>	<b><math>\Phi^2</math></b>
Ideological Vision & Leading Change		.850 (.861)	.586 (.607)	.493
Ideological Vision & Institutional Politics		.849 (.847)	.586 (.581)	.180
Ideological Vision & Change Orientation		.848 (.883)	.584 (.520)	.480
Leading Change & Change Orientation		.861 (.883)	.607 (.520)	.346
Institutional Politics & Change Orientation		.847 (.883)	.582 (.520)	.303

The nested model analyses each pair of factors by identifying which model (constraint vs un-constraint) has the highest model fit with a degree of freedom (df) of 1. Furthermore the change in chi-square with df of 1 should be greater than 3.841 for the construct to achieve discriminant validity. The results indicated that the unconstraint model's chi-square is more than the constraint model's chi-square. This suggested that all pairs achieved discriminant validity. The change in chi-square was also above the recommended 3.841. **Table 5.15** summarizes the findings for this analysis.

**Table 5.15 Discriminant Validity**

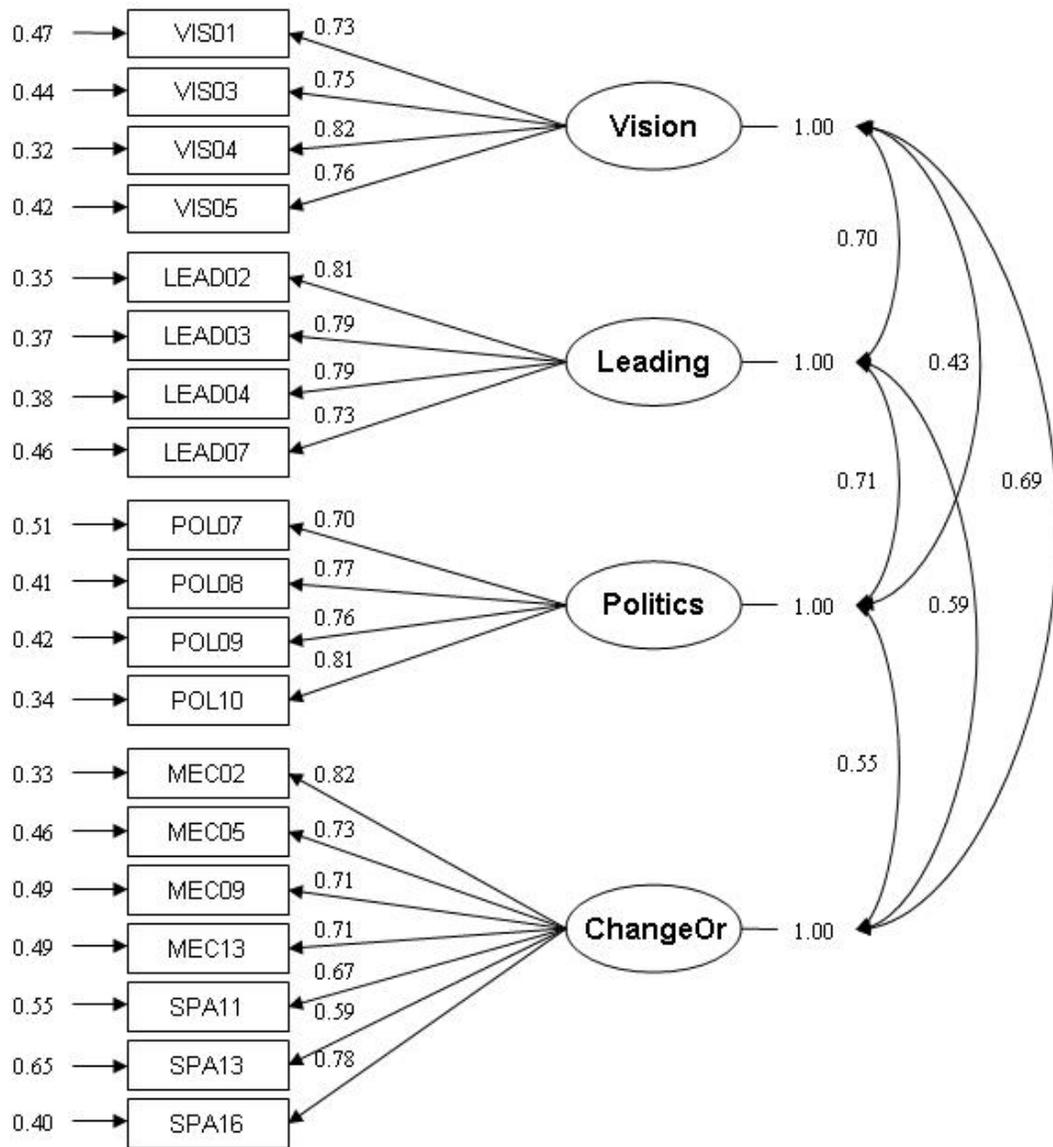
<b>Model</b>	<b>Factor 1 (Factor 2)</b>	<b><math>\chi^2</math> (df) (Phi-matrix Unconstrained)</b>	<b><math>\chi^2</math> (df) (Phi-matrix Constraint)</b>	<b><math>\Delta\chi^2</math> (df)</b>
Ideological Vision & Leading Change		29.457 (19)	64.525 (20)	35.068 (1)
Ideological Vision & Institutional Politics		32.010 (19)	83.744 (20)	51.734 (1)
Ideological Vision & Change Orientation		81.712 (43)	104.155 (44)	22.443 (1)
Leading Change & Change Orientation		66.821 (43)	106.431 (44)	39.610 (1)
Institutional Politics & Change Orientation		69.916 (43)	122.870 (44)	52.954 (1)

## **5.9 ORC AS A 1<sup>ST</sup> ORDER FOUR-FACTOR STRUCTURE**

The theoretical development of the ORC framework carried out in this study has led to the identification of five receptivity factors that affect the rate and pace of change (Butler, 2003; Butler & Allen, 2008). However, the study found that two factors in Butler and Allen (2008) framework represent one factor. As such it was necessary to analyse how well the remaining four factors fit into the conceptual model.

The model fit indicated the data fit well into the hypothesized model. The fit statistics were  $\chi^2$  (146) = 236.483 significant  $p < .001$ , with RMSEA = .050, SRMR = .052 which were  $< .05$ . Other goodness-of-fit statistical results were: NFI = .965, NNFI = .983, CFI = .985, GFI = .908, AGFI = .880 in which all were  $> .90$ .

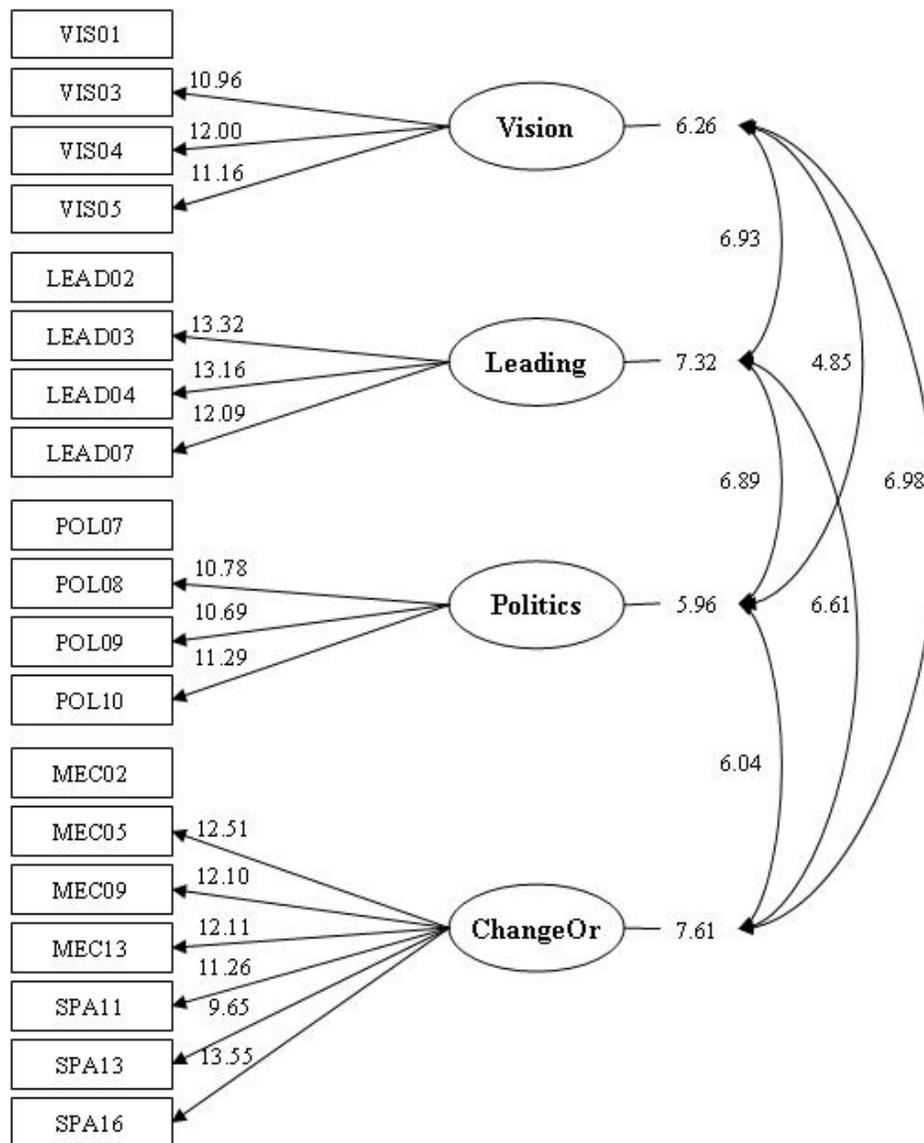
**Figure 5.2 Standardized Solutions for Four-Factor Structure**



Note:  $\chi^2$  (146),  $p < .001$ , RMSEA = .05

Based on the standardized solutions results, loadings between items and the latent construct were high where all factor loadings for each item were more than the .50 cut-off value (Hair *et al.*, 2010). The loadings amongst the four receptivity factors were also significant.

**Figure 5.3 T-values for Four-Factor Structures**



Note:  $\chi^2 (146) = 236.48, p < .001, RMSEA = .05$

There was high correlation evident between the four factors. This could indicate a possibility that the four factors actually have a higher abstraction level (Cheung, 2008).

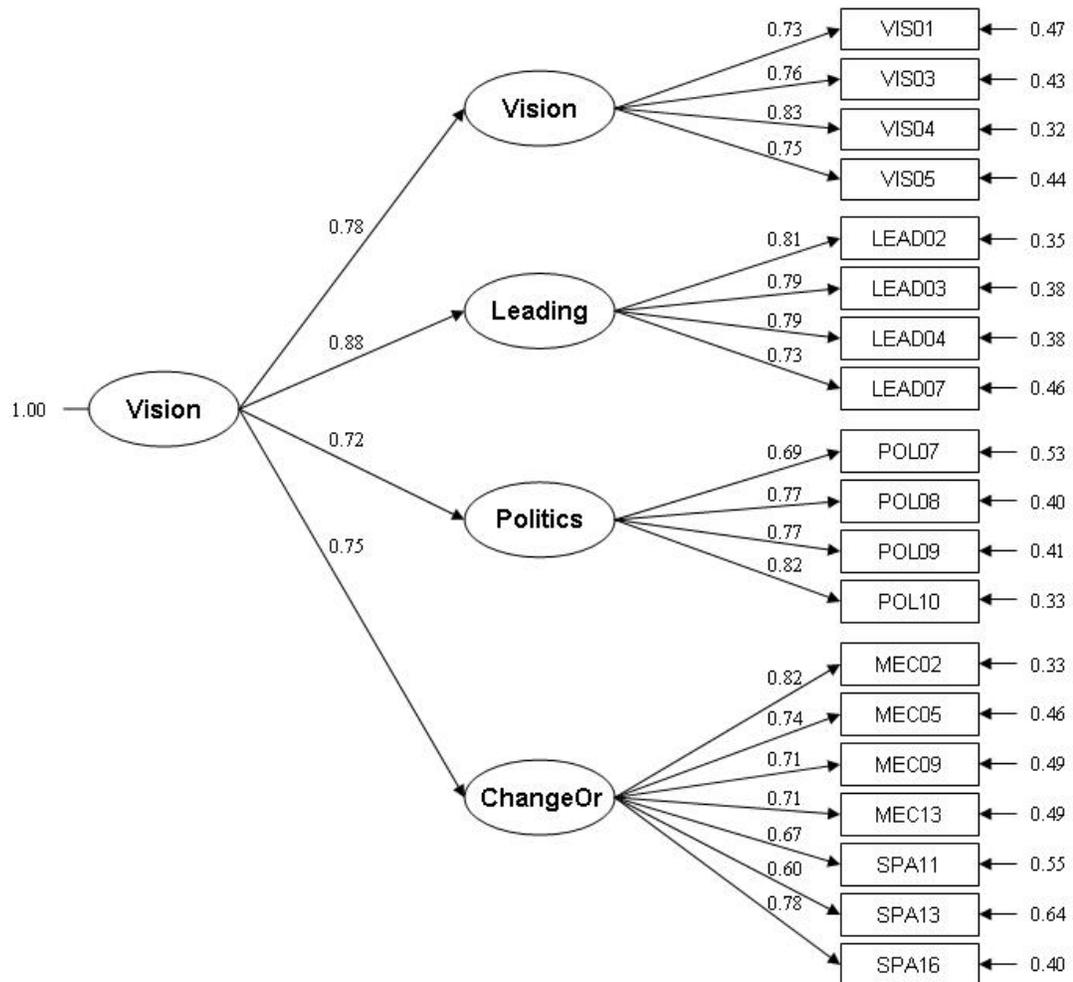
### 5.10 ORC AS A 2<sup>ND</sup> HIGHER-ORDER CONSTRUCT

The role of theory is paramount in any covariance structural analysis since it 1) develops or selects the indicators that fit the theoretical definitions and constructs and 2) defines whether the indicators influence the latent construct or vice versa (Bollen, 2011).

Theoretically, the ORC framework analyses how different organisational factors would help an organisation ‘create high energy around change’ (Pettigrew *et al.*, 1992; p. 268). Therefore a second-order CFA was conducted to ascertain a more concrete dimension of an overall abstract construct (see Dietvorst *et al.*, 2009).

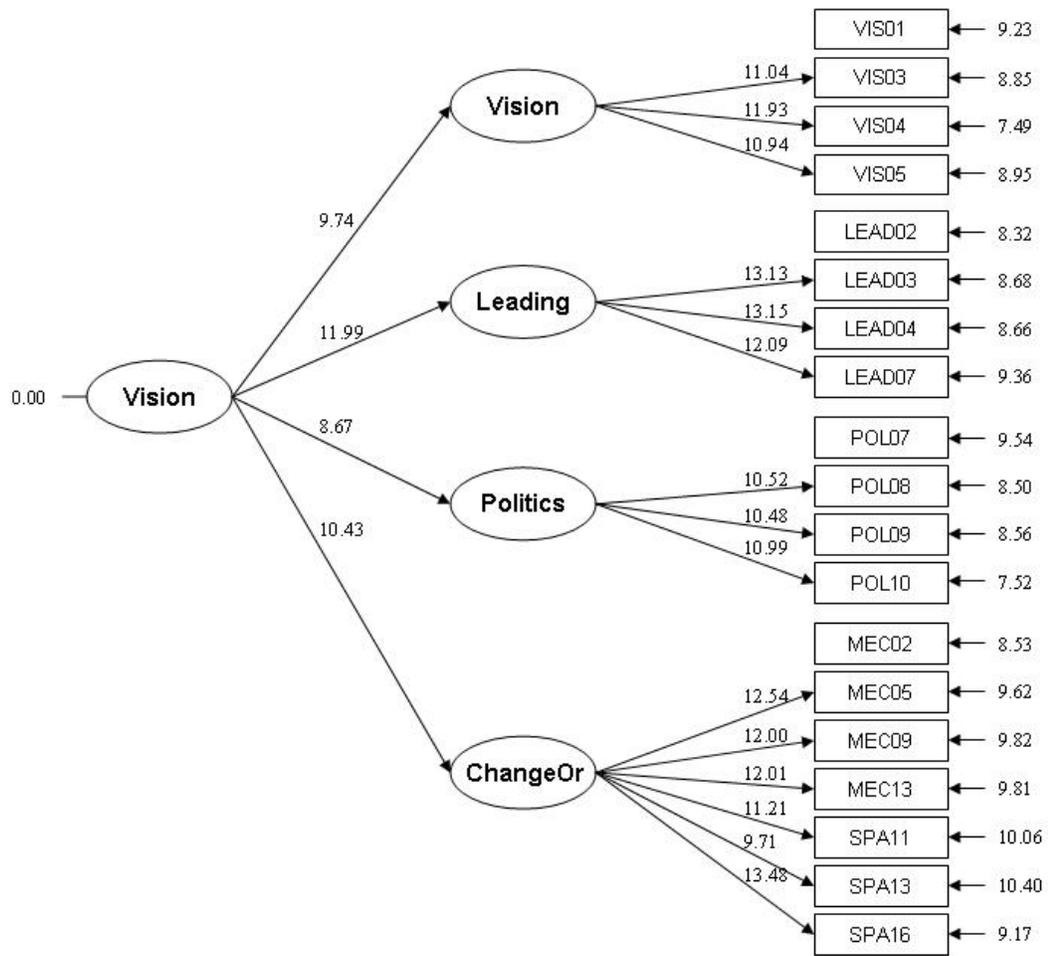
The second-higher order model showed a better model fit than the four factor first-order structure. The model fit well according to all the goodness-of-fit indexes:  $\chi^2$  (148) = 264.979,  $p < .001$ , RMSEA = .057, NFI = .960, NNFI = .977, CFI = .980, GFI = .898, AGFI = .869 and SRMR = .065. The second-order and first-order factor loadings were high; the second-order loadings ranged from .72 – .88 and the first-order loading ranged from .60 – .83.

**Figure 5.4 Standardized Solutions for Four-Factor Structure**



Note:  $\chi^2$  (148) = 264.98,  $p < .001$ , RMSEA = .057

**Figure 5.5 T-values for Four-Factor Structure**



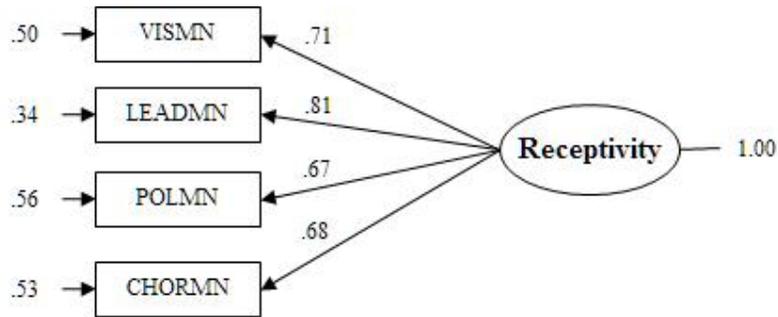
Note:  $\chi^2 (148) = 264.98, p < .001, RMSEA = .057$

The results indicated the four receptivity factors can be organised as distinct, concrete representation of a single second higher-order construct of Organisational Receptivity towards Change.

Consistent with common practice, this study examined the second-order factor structure by conducting one-factor CFA on the average score of each of the respective four first-order constructs (see Ramani & Kumar, 2008; Jayachandran *et al.*, 2005).

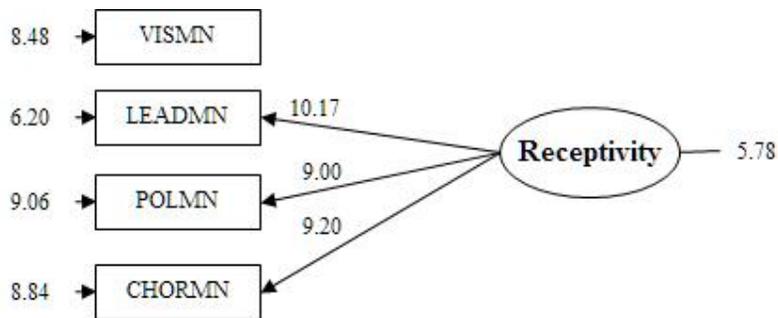
The model fit well according to all the goodness-of-fit indexes:  $\chi^2 (2) = 29.838, p < .001$ , RMSEA = .225, NFI = .925, NNFI = .788, CFI = .929, GFI = .948, AGFI = .741 and SRMR = .052. **Table 5.16 and Table 5.17** summarize the result of both CFAs.

**Figure 5.6 Standardized Solutions for Four-Factor Structure**



Note:  $\chi^2 (2) = 26.87, p < .01, SRMR = .052$

**Figure 5.7 T-values for Four-Factor Structure**



Note:  $\chi^2 (2) = 26.87, p < .001, SRMR = .052$

The results showed that the average score model had almost as good a fit as the other model. Based on this result, the study used the aggregate scale consisting of the average score of the four receptivity factors as indicators for this construct in further analysis. This was consistent with the common practice as recommended by Ramani and Kumar (2008).

**Table 5.16 CFA result for Second-Order Conceptualization of Receptivity Framework**

Indicator	Direction	Construct	Standardised parameter estimate	Unstandardised parameter estimate	SE	t-value	r <sup>2</sup>	p
VIS01	←	Ideological Vision	.726	1.000			.528	.000
VIS03	←	Ideological Vision	.756	.854	.077	11.042	.572	.000
VIS04	←	Ideological Vision	.826	1.107	.093	11.926	.682	.000
VIS05	←	Ideological Vision	.749	.798	.073	1.940	.561	.000
LEAD02	←	Leading Change	.807	1.000			.651	.000
LEAD03	←	Leading Change	.787	1.041	.079	13.131	.619	.000
LEAD04	←	Leading Change	.788	1.192	.091	13.151	.621	.000
LEAD07	←	Leading Change	.735	1.112	.092	12.085	.540	.000
POL07	←	Institutional Politics	.687	1.000			.471	.000
POL08	←	Institutional Politics	.772	1.330	.126	1.519	.595	.000
POL09	←	Institutional Politics	.768	1.209	.115	1.477	.590	.000
POL10	←	Institutional Politics	.818	1.190	.108	1.990	.669	.000
MEC02	←	Change Orientation	.819	1.000			.671	.000
MEC05	←	Change Orientation	.736	.896	.071	12.540	.541	.000
MEC09	←	Change Orientation	.711	.810	.067	11.999	.505	.000
MEC13	←	Change Orientation	.711	.758	.063	12.009	.506	.000
SPA11	←	Change Orientation	.673	.786	.070	11.205	.453	.000
SPA13	←	Change Orientation	.598	.687	.071	9.705	.358	.000
SPA16	←	Change Orientation	.778	.914	.068	13.478	.605	.000
Vision	←	Receptivity	.785	.677	.069	9.741	.616	.000
Leading Change	←	Receptivity	.884	.601	.050	11.994	.781	.000
Institutional Politics	←	Receptivity	.721	.406	.047	8.671	.519	.000
Change Orientation	←	Receptivity	.747	.569	.055	1.431	.558	.000

**Table 5.17 CFA result using average scores for the Four Receptivity Factors in the ORC framework**

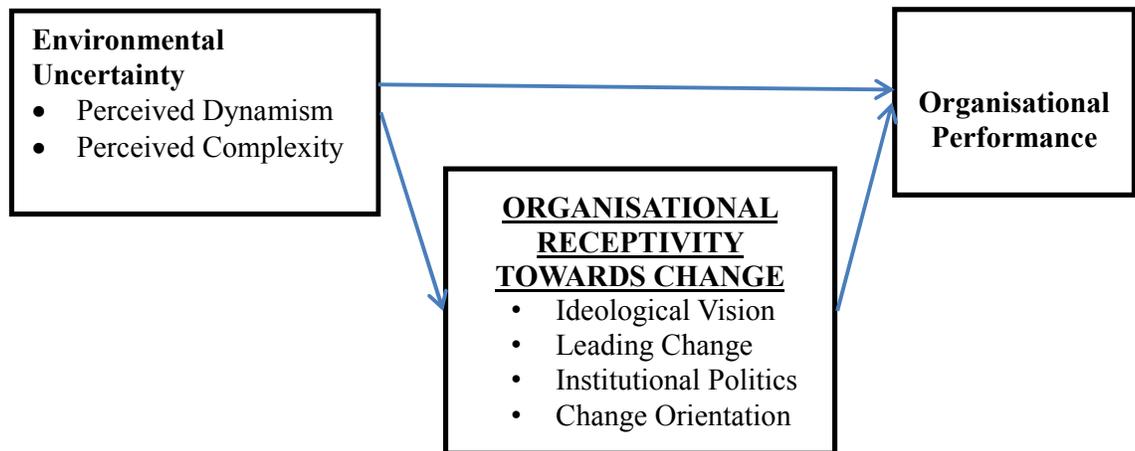
<b>Indicator</b>	<b>Direction</b>	<b>Construct</b>	<b>Standardised parameter estimate</b>	<b>Unstandardised parameter estimate</b>	<b>SE</b>	<b>t-value</b>	<b>r<sup>2</sup></b>	<b>p</b>
Vision	←	Receptivity	.709	1.000			.502	.000
Leading Change	←	Receptivity	.811	1.065	.105	1.165	.658	.000
Institutional Politics	←	Receptivity	.667	.773	.086	9.001	.444	.000
Change Orientation	←	Receptivity	.685	.701	.076	9.205	.469	.000

## 5.11 NOMOLOGICAL VALIDITY

For nomological validity, the study tested how well the newly refined scale performed in a conceptual framework. To do so, it would require selecting one independent construct and one dependent construct based on the theoretical framework discussed in Chapter 2.

**Figure 5.8** summarizes the proposed conceptual framework.

**Figure 5.8 Conceptual Framework**



### 5.11.1 Choice of Scale

The scale used for the ORC will be the refined scale as discussed in the previous section.

**Table 5.18** summarizes the list of items for each of the receptivity factors.

**Table 5.18 Summary of Receptivity factors Items**

Construct Name and Items	
<b>RF1: Ideological Vision</b>	
VIS01	My organisation's vision is clear to all employees
VIS03	The top management has always considered the organisation's vision when developing new strategies
VIS04	The change programme is in-line with my organisation's vision
VIS05	My organisation's change policies are in-line with its vision
<b>RF2: Leading Change</b>	
LEAD02	The change leader often create a team to help manage the change programme
LEAD03	The team usually comprises at least one senior manager
LEAD04	My organisation would give the change leader the power and authority to implement change

LEAD07	The change leader's knowledge on change management enhances the change implementation success
<b>RF3: Institutional Politics</b>	
POL07	The change leader would use his/her relationship with these individuals/groups to implement change
POL08	The change leader would use his/her relationships with external contacts (government, media, or other influential people) to implement change
POL09	The change leader would form alliances with these individuals to gain support
POL10	The change leader formalizes participation procedures with all these individuals/groups
<b>RF6: Change Orientation</b>	
MEC02	My organisation is always open about discussing issues relating to change
MEC05	My organisation would provide continuous support for employees involved in change
MEC09	The strategies to manage change are clearly defined
MEC13	The organisation always divides change programme into achievable target
SPA11	My organisation culture is very adaptive to change
SPA13	My organisation promotes knowledge transfer between different departments
SPA16	The organisation has the capacity to absorb new practices.

The operationalization of the external environment is divided into three sub-dimensions which meant to “describe and conceptualize the fundamental properties of the organisational external environment” (Bluedorn, 1993; p.166). They are: 1) environmental dynamism, 2) environmental complexity and 3) environmental munificence (Bluedorn, 1993; Harrington & Kendall, 2010).

This study used the measures developed by Harrington & Kendall (2010) where the defined environmental uncertainty is a higher order latent construct that is caused by both environmental complexity and dynamism. Environmental dynamism is defined as ‘unexpected change that is hard to predict’ (Harrington, 2001; p.387) and environmental complexity is defined as the ‘perception of number of things going on in the general environment’ (Harrington & Kendall, 2010). **Table 5.19** summarizes the items for both constructs in environmental uncertainty.

**Table 5.19 Summary of Environmental Uncertainty Items**

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**Environmental Dynamism**

1. The industry my organisation operates in faces high volatility in sales on an annual basis.
2. The industry my organisation operates in faces high volatility in earnings on an annual basis.

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**Environmental Complexity**

1. The rate of change in technology in this industry is high.
2. The rate of change in government regulations for this industry is high.
3. The rate of product/service obsolescence is high.

4. The degree of pressure to research and develop new products/services, applications, and practices is high in this industry.
  5. The degree of difficulty in forecasting industry trends/developments/changes is high in this industry.
  6. The degree of technological complexity is high in this industry.
  7. The degree of general business environment complexity is high in this industry.
  8. The degree that your actions directly affect your competitors is high.
  9. The number of firms in this industry is higher than other industries.
- 

This study used the subjective non-financial organisational performance and market performance scales developed by Delaney & Huselid (1996) (see Newbert, 2008; Takeuchi *et al.*, 2007; Tzafir, 2005). Newbert (2008) asserted that Delaney and Huselid's (1996) market performance scale has been widely used in other literatures and had a "well documented reliability of .86" (p.753) and would serve as a rigorous indicator of firm performance. **Table 5.20** summarizes the items for organisational performance.

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***Table 5.20 Organisational Performance Measures***

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**Subjective Non-Financial Performance**

---

Evaluate the performance of your organisation by responding to the following statements, comparing it to other organisation performance over the past 3 years in terms of ...

1. Quality of products, services or programs?
  2. Development of new products, services, or programs?
  3. Ability to attract essential employees?
  4. Ability to retain essential employees?
  5. Satisfaction of customer or clients
  6. Relations between management and other employees?
  7. Relations among employees in general?
- 

**Subjective Market Performance**

---

Compared to other organisations that do the same kind of work, how would you compare your organisation's performance over the past 3 years in terms of ...

1. Marketing?
  2. Growth in Sales?
  3. Profitability?
  4. Market Share?
- 

**5.11.2 Antecedents and Outcome Construct Evaluations**

The first step in the evaluations is to run all three antecedents and outcomes together in EFA. The KMO for the EFA was .838 with Bartlett's test of sphericity being significant. The EFA results demonstrated there were three factor structures consistent with the prediction. However, there were some items with low factor loadings (< .50), which

suggest poorly performing items. Therefore, this study conducted a separate EFA on each factor to ensure that each has high levels of convergent and discriminant validity. **Table 5.21** illustrates the findings from the EFA.

**Table 5.21 Principal Axis Factoring of Perceived Dynamism, Perceived Complexity, and Market Performance**

Item	Rotated Factor Matrix		
	Factor		
	1	2	3
EXT07	.709		
EXT03	.691		
EXT08	.684		
EXT09	.641		
EXT06	.596		
EXT05	.557		
EXT10	.490		
EXT04	*.388		
EXT11	*.375		
CPERF02		.834	
CPERF03		.795	
CPERF04		.764	
CPERF01		.751	
EXT01			.832
EXT02	.364		.732

\*Items with low factor loading < .40 (Hair *et al.*, 2010)

The purpose of the individual EFA was to identify the latent construct for environmental uncertainty. When all 11 items were run in EFA using PAF and Varimax rotations, this study found two sub-dimensions for this construct which was consistent with findings from Harrington & Kendall (2010). **Table 5.22** summarizes the findings.

**Table 5.22 Factor Loading**

Item	Rotated Factor Matrix		Communalities
	Factor		
	1	2	
EXT03	.682		.476
EXT08	.679		.538
EXT07	.662	.312	.536
EXT09	.643		.437
EXT06	.605		.397
EXT05	.520		.331
EXT10	.462	.329	.322
EXT04	*.345		.164
EXT11	*.326		.200
EXT01		.877	.801
EXT02		.759	.651

\*Items with low factor loading < .40 (Hair *et al.*, 2010)

KMO was .842 and Bartlett's test of sphericity was significant. Two items were found to have factor loading values below the recommended value of .40 (Hair *et al.*, 2010). Therefore this study analysed the reliability of each construct separately.

The KMO for environmental dynamism was below the recommended value of .70 (Nunnally, 1978) which suggests that the factor was not appropriate for factor analysis. Though the factor loading values were high (EXT01 = 9.28 and EXT02 = 9.28), Hair *et al.* (2010) highlighted that statistical issues would arise which can cause the data matrix to be insufficient to justify the application of factor analysis. They claimed that when 'all correlations are low all of the correlations are equal, researcher should question the application of factor analysis' (Hair *et al.*, 2010; p.103). This study excluded environmental dynamism from further analysis.

The environmental complexity construct was reliable, where the Cronbach's Alpha was .832. This study removed two items (EXT04 and EXT 11) due to low item-to-total value in the first iteration of EFA for the factor. The second iteration led to the removal of another item (EXT10) due to low item-to-total value. The final iteration showed that the KMO value was .845 and Bartlett's test of sphericity was significant. All the factors were loaded into one dimension with the lowest factor loading value of .653. **Table 5.23** summarizes the findings.

**Table 5.23 Factor Loading for Environmental Complexity**

Item	Component	
	1	Communalities
EXT03	.782	.612
EXT07	.765	.585
EXT08	.758	.574
EXT06	.719	.517
EXT09	.714	.510
EXT05	.653	.427

For organisational performance, the KMO value was .805 and Bartlett's test of sphericity was significant. All the items loaded into one dimension and all items had high factor loadings and communalities values as recommended by Hair *et al.* (2010). The items also demonstrated high values in the internal consistency analysis. **Table 5.24** summarizes the findings.

**Table 5.24 Factor Loading for Organisational Performance**

Items	Component	
	1	Communalities
CPERF02	.861	.742
CPERF03	.837	.700
CPERF04	.819	.670
CPERF01	.785	.616

### 5.11.3 Convergent Validity Test

The next step is to conduct CFA on all factors in the conceptual framework. **Table 5.25** presents all the key statistics in the CFA.

**Table 5.25 Confirmatory Factor Analysis of Perceived Environmental Complexity, Organisational Receptivity for Change and Competitive Performance**

	Env	Vision	Leading	Politics	Change Orient	Perf	t-values
EXT03	.728						
EXT05	.536						7.512
EXT06	.645						8.955
EXT07	.663						9.183
EXT08	.695						9.578
EXT09	.613						8.535
VIS01		.735					
VIS03		.749					11.139
VIS04		.827					12.251
VIS05		.759					11.28
LEAD02			.796				
LEAD03			.784				12.849
LEAD04			.782				12.817
LEAD07			.741				12.027
POL07				.71			
POL08				.744			1.474
POL09				.738			1.398
POL10				.796			11.093
MEC02					.796		
MEC05					.706		11.566
MEC09					.724		11.934
MEC13					.702		11.486
SPA11					.684		11.140
SPA13					.576		9.115
SPA16					.779		13.082
CPERF01						.741	
CPERF02						.816	12.139
CPERF03						.799	11.914
CPERF04						.779	11.626
Composite Reliability	.852	.858	.835	.877	.865		
Average Variance Extracted	.59	.602	.559	.508	.615		
<b>Goodness of Fit Statistics</b>							
$\chi^2$ (362) = 591.503, $p < .001$ , RMSEA = .049, SRMR = .046, NFI = .949, NNFI = .977, CFI = .979, GFI = .860, AGFI = .832							

Based on the result, each item's factor loadings was more than .50 (Hair *et al.*, 2010). The analysis of the MI also indicated that the items did not have cross loading and error variance problems. This outcome inferred that there was sufficient evidence of unidimensionality for each construct in this theoretical framework.

Referring to **Table 5.25**, CR value for all the factors were above the .70 value as recommended by Nunnally and Bernstein (1994), which suggested that all factors achieved construct validity.

#### **5.11.4 Discriminant Validity Test**

The determination of the discriminant validity is based on results from AVE values and nested models. **Table 5.26** lists the AVE values and the common variance shared values for each pair of factors.

The discriminant analysis through AVE values suggested that almost all factor pairs have achieved discriminant validity, where both AVE values were higher than the common shared variance value (Fornell & Larcker, 1981). The only pair that did not achieve discriminant validity was ideological vision and the change orientation factor. This suggests further analysis using CFA of the two construct to determine the item that would show cross loading between the two factors. **Table 5.26** lists all the pairs for the AVE analysis.

**Table 5.26 Discriminant Validity - Average Variance Extracted and Shared Variance Estimates**

Model	Factor 1 (Factor 2)	AVE Factor 1 (Factor2)	$\Phi^2$
	Perceived Environmental Complexity & Ideological Vision	.422 (.590)	.140
	Perceived Environmental Complexity & Leading Change	.422 (.602)	.176
	Perceived Environmental Complexity & Institutional Politics	.422 (.559)	.282
	Perceived Environmental Complexity & Change Orientation	.422 (.508)	.120
	Perceived Environmental Complexity & Competitive Performance	.422 (.615)	.055
	Ideological Vision & Leading Change	.590 (.597)	.513
	Ideological Vision & Institutional Politics	.590 (.543)	.224
	Ideological Vision & Change Orientation	.590 (.508)	*.549
	Ideological Vision & Competitive Performance	.590 (.545)	.294
	Leading Change & Institutional Politics	.602 (.545)	.537
	Leading Change & Change Orientation	.602 (.508)	.428
	Leading Change & Competitive Performance	.602 (.615)	.130
	Institutional Politics & Change Orientation	.559 (.508)	.353
	Institutional Politics & Competitive Performance	.559 (.615)	.088
	Change Orientation & Competitive Performance	.508 (.615)	.456

\*  $\Phi^2 > AVE$

The CFA analysis showed that one item SPA16 cross-loaded onto ideological vision factor with a MI value of 13.6. This led to the removal of the item in order to ensure that the two factors discriminate well against one another.

### 5.11.5 Re-Analysis of Convergent and Discriminant Validities

The removal of an item from the change orientation factor suggested a need for the re-analysis of the convergent and discriminant validity of all the factors in the framework.

#### 5.11.5.1 Convergent Validity

According to the convergent analyses the composite reliability value of all the factors are higher than the recommended value (Hair *et al.*, 2010) which demonstrated that all factors achieved convergent validity. **Table 5.27** lists all statistics that demonstrates each factor's convergent validity.

**Table 5.27 CFA for All Constructs in the Theoretical Framework.**

<b>CODE</b>	<b>Env02</b>	<b>Vision</b>	<b>Leading</b>	<b>Politics</b>	<b>ChangeOr</b>	<b>Cform</b>	<b>t-value</b>
EXT03	.728						
EXT05	.536						7.512
EXT06	.645						8.955
EXT07	.663						9.183
EXT08	.695						9.578
EXT09	.613						8.535
VIS01		.735					
VIS03		.749					11.139
VIS04		.827					12.251
VIS05		.759					11.280
LEAD02			.796				
LEAD03			.784				12.849
LEAD04			.782				12.817
LEAD07			.741				12.027
POL07				.71			
POL08				.744			1.474
POL09				.738			1.398
POL10				.796			11.093
MEC02					.796		
MEC05					.706		11.566
MEC09					.724		11.934
MEC13					.702		11.486
SPA11					.684		11.140
SPA13					.576		9.115
CPERF01						.741	
CPERF02						.816	12.139
CPERF03						.799	11.914
CPERF04						.779	11.626
Composite Reliability	.852	.858	.835	.857	.865		
Average Variance Extracted	.59	.603	.559	.502	.615		
<b>Goodness of Fit Statistics</b>							
$\chi^2 (335) = 541.507, p < .001$ , with RMSEA = .048, SRMR = .05, NFI = .947, NNFI = .977, CFI = .979, GFI = .867, AGFI = .839							

### 5.11.5.2 Discriminant Validity

The AVE analysis demonstrated that all pairs of factors achieved discriminant validity, including the pair of ideological vision and change orientation. **Table 5.28** lists the AVE values of all pairs along with the common variance shared value of each pair.

**Table 5.28 Discriminant Validity - Average Variance Extracted and Shared Variance Estimates**

Model	Factor 1 (Factor 2)	AVE Factor 1 (Factor2)	$\phi^2$
	Perceived Environmental Complexity & Ideological Vision	.422 (.590)	.140
	Perceived Environmental Complexity & Leading Change	.422 (.603)	.176
	Perceived Environmental Complexity & Institutional Politics	.422 (.559)	.282
	Perceived Environmental Complexity & Change Orientation	.422 (.502)	.188
	Perceived Environmental Complexity & Competitive Performance	.422 (.615)	.055
	Ideological Vision & Leading Change	.590 (.597)	.513
	Ideological Vision & Institutional Politics	.590 (.543)	.224
	Ideological Vision & Change Orientation	.590 (.502)	.493
	Ideological Vision & Competitive Performance	.590 (.545)	.294
	Leading Change & Institutional Politics	.603 (.545)	.537
	Leading Change & Change Orientation	.603 (.502)	.372
	Leading Change & Competitive Performance	.603 (.615)	.131
	Institutional Politics & Change Orientation	.559 (.502)	.334
	Institutional Politics & Competitive Performance	.559 (.615)	.088
	Change Orientation & Competitive Performance	.502 (.615)	.444

The next analysis in the test for discriminant validity was the nested model. In order for the factors to discriminate against one another, the unconstrained model's chi-square value must be lower than the constraint model's chi-square value (Gerbing & Anderson, 1988). Furthermore the change in chi-square value with a degree of freedom (df) of 1 should be more than 3.841 for discriminant validity to be achieved. The analysis demonstrated that all models achieved discriminant validity. **Table 5.29** summarizes the chi-square values for all the pairs.

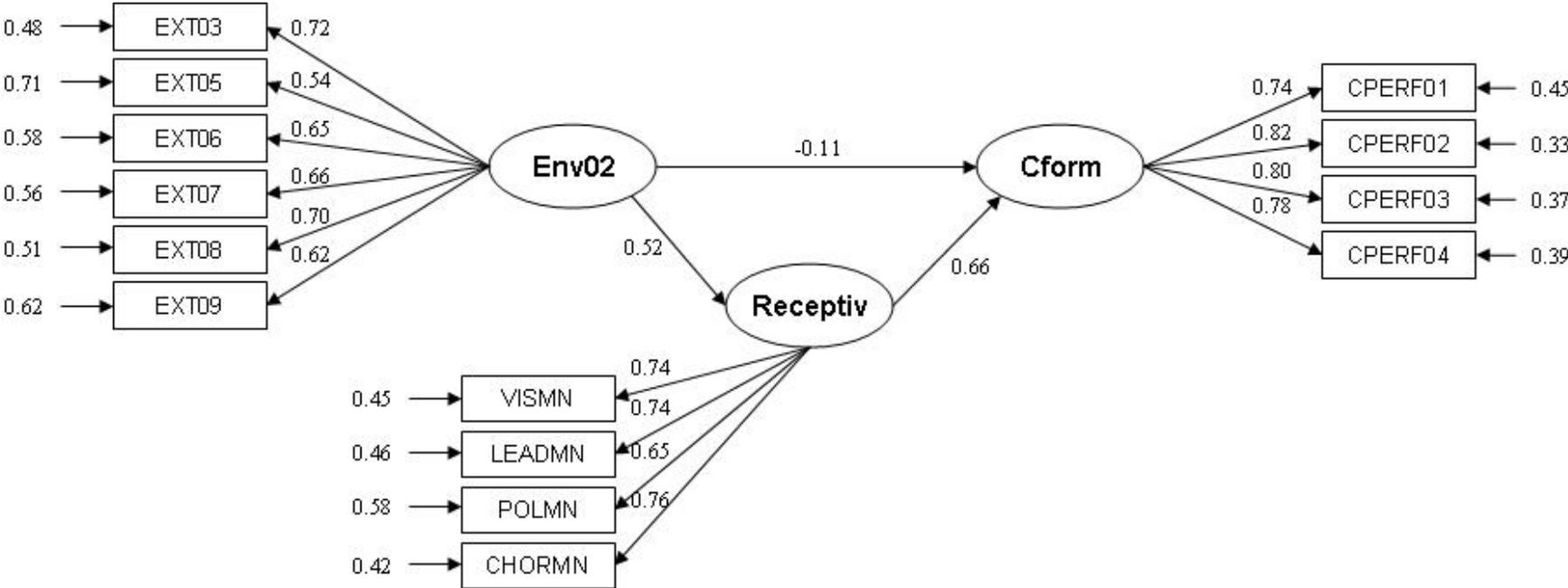
**Table 5.29 Discriminant Validity -  $\chi^2$  Differences – Constraint Model vs Un-constraint Model.**

Paired Measurement Models	$\chi^2$ (df) (Phi-matrix Unconstrained)	$\chi^2$ (df) (Phi-matrix Constraint)	$\Delta\chi^2$ (df)
Perceived Environmental Complexity - Ideological Vision	67.625 (34)	103.847 (35)	36.222 (1)
Perceived Environmental Complexity - Leading Change	54.777 (34)	10.615 (35)	45.838 (1)
Perceived Environmental Complexity - Institutional Politics	81.352 (34)	135.673 (35)	54.321 (1)
Perceived Environmental Complexity - Change Orientation	109.139 (53)	151.069 (54)	41.930 (1)
Perceived Environmental Complexity - Competitive Performance	63.059 (34)	157.613 (35)	94.554 (1)
Ideological Vision - Leading Change	31.727 (19)	59.480 (20)	27.753 (1)
Ideological Vision - Institutional Politics	32.717 (19)	85.116 (20)	52.399 (1)
Ideological Vision - Change Orientation	58.076 (34)	83.097 (35)	25.021 (1)
Ideological Vision - Competitive Performance	35.726 (19)	117.378 (20)	81.652 (1)
Leading Change - Institutional Politics	25.574 (19)	8.195 (20)	54.621 (1)
Leading Change - Change Orientation	36.666 (34)	78.803 (35)	42.137 (1)
Leading Change - Competitive Performance	28.846 (19)	135.536 (20)	106.69 (1)
Institutional Politics - Change Orientation	46.458 (34)	102.149 (35)	55.691 (1)
Institutional Politics - Competitive Performance	33.246 (19)	n/a	n/a
Change Orientation - Competitive Performance	43.724 (34)	124.632 (35)	8.908 (1)

## 5.12 STRUCTURAL EQUATION MODELING (SEM)

Structural equation modeling analysis will be used to determine the relationship between the factors. The model fit demonstrated that the model was an adequate representation of the relationship between the factors in a conceptual framework. **Figure 5.9** illustrates the model for the nomological validity analysis. The factors in the model fit well according to all goodness-of-fit indexes:  $\chi^2(74) = 183.762$ ,  $p < .001$ , RMSEA = .0783, NFI = .927, NNFI = .944, CFI = .954, GFI = .902, AGFI = .861, and SRMR = .065. **Table 5.30** summarizes the structural model statistics.

**Figure 5.9 Structural Model – Standardised Solutions**



$\chi^2 (74) = 183.76, p < .001, RMSEA = .078$

**Table 5.30 Structural Model**

Indicator	Direction	Construct	Standardised parameter estimate	Unstandardised parameter estimate	SE	t-value	p
EXT03	←	Perceived Environmental Complexity	.720	1.000			.000
EXT05	←	Perceived Environmental Complexity	.543	.931	.124	7.533	.000
EXT06	←	Perceived Environmental Complexity	.647	.943	.106	8.877	.000
EXT07	←	Perceived Environmental Complexity	.662	.879	.097	9.054	.000
EXT08	←	Perceived Environmental Complexity	.697	.987	.104	9.477	.000
EXT09	←	Perceived Environmental Complexity	.616	.674	.079	8.481	.000
VISMN	←	Receptivity	.743	1.000			.000
LEADMN	←	Receptivity	.737	.906	.087	1.440	.000
POLMN	←	Receptivity	.647	.638	.069	9.243	.000
CHORMN	←	Receptivity	.763	.716	.067	1.749	.000
CPERF01	←	Competitive Performance	.741	1.000			.000
CPERF02	←	Competitive Performance	.820	1.282	.106	12.096	.000
CPERF03	←	Competitive Performance	.796	1.267	.108	11.784	.000
PERF04	←	Competitive Performance	.778	1.143	.099	11.529	.000
Perceived Environmental Complexity	→	Receptivity	.518	.363	.059	6.122	.000
Perceived Environmental Complexity	→	Competitive Performance	-.106	-.037	.029	-1.263	.000
Receptivity	→	Competitive Performance	.659	.328	.050	6.567	.000

**Table 5.31 Results of the Hypothesis Testing**

<b>Indicator</b>	<b>Direction</b>	<b>Construct</b>	<b>Standardised parameter estimate</b>	<b>Unstandardised parameter estimate</b>	<b>SE</b>	<b>t-value</b>	<b>r<sup>2</sup></b>	<b>p</b>	<b>Hypothesis</b>	<b>Conclusion</b>
Perceived Environmental Complexity	→	Receptivity	.518	.363	.059	6.122		.000	1	Supported
Perceived Environmental Complexity	→	Competitive Performance	-.106	-.037	.029	-1.263	.055	.000	2	Supported
Receptivity	→	Competitive Performance	.659	.328	.050	6.567	.268	.000	3	Supported

Nomological validity is achieved when the relationship between all factors in the framework behave as expected in the theory (Churchill, 1995). The hypothesis testing was conducted by analysing the significance of individual paths. The relationship with respect to Hypothesis 1, 2 and 3 were tested. The estimated path coefficients are summarized in **Table 5.31**.

The first hypothesis refers to the relationship between perceived environmental complexities and the receptivity factors. This study hypothesized that there would be a positive relationship between the two factors, and this was reflected in the results where the path coefficients (standardized parameter estimates) between the two factors were significant and positive.

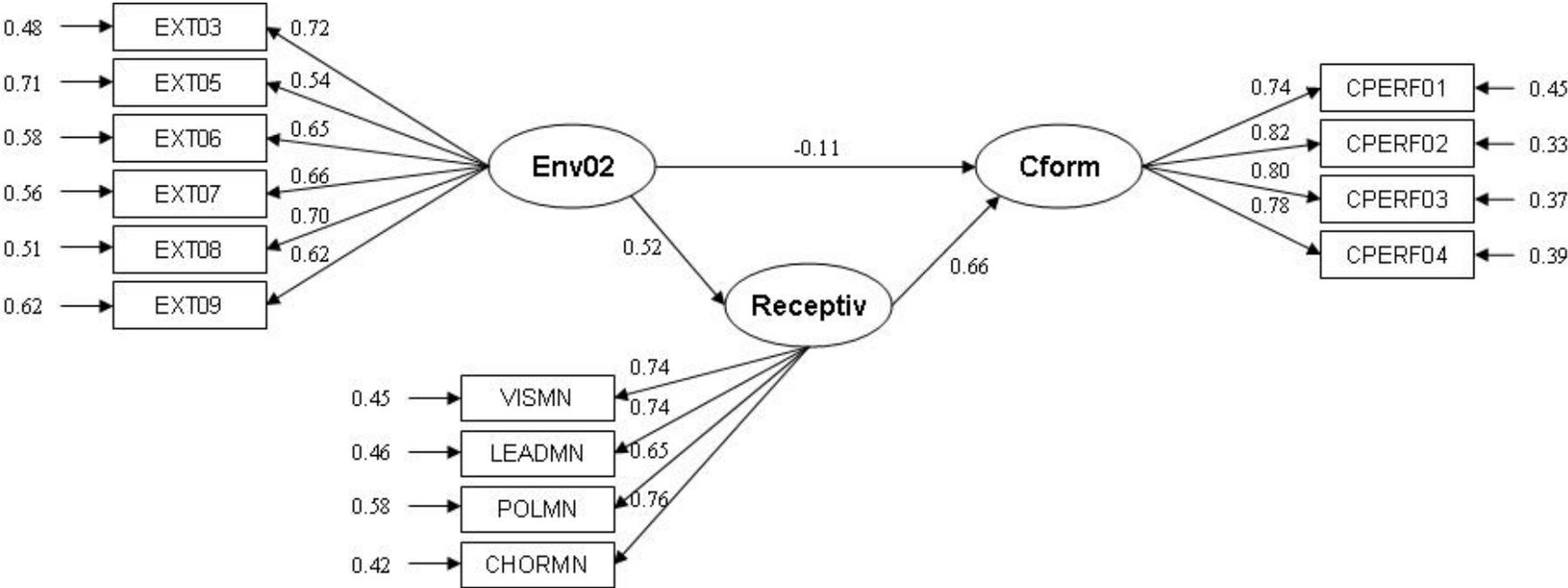
The second hypothesis looks at the relationship between perceived environmental complexity and organisational performance. Based on the results, the path coefficient between the two constructs was -.106 which indicated a significant and negative relationship between the factors.

The final hypothesis looks at the relationship between receptivity factors and organisational performance. The path coefficient between the two constructs was .659 which demonstrated a significant and positive relationship between the constructs.

### **5.13 TEST OF MEDIATION**

The final test for the newly developed scale is the test for mediation effect. The first step entailed analysing the model in SEM, so both the direct and indirect paths were fitted into the model simultaneously to estimate both effects. Based on the results, 'some' mediation effects were evident as both the  $X \rightarrow M$  (.52) and  $M \rightarrow Y$  (.66) coefficients were significant. The path coefficients for all constructs are illustrated in **Figure 5.10**.

Figure 5.10 Structural Equation Modeling – Standardised Solutions



$\chi^2 (74) = 183.76, p < .001, RMSEA = .078$

The second step was to compute the z value to test the relative sizes of the indirect (mediated) vs. direct paths. A stronger test for mediation is the Sobel test. As provided by the result, the figures were entered into the Sobel test and the output (test statistics and *p*-value) was provided in **Table 5.32**. The calculation for the Sobel test was done in K.J. Preacher’s webpage <http://quantpsy.org/sobel/sobel.htm>.

**Table 5.32 Sobel Test**

Key	Input	Test Statistics	p-value
a	.363	4.488	.000**
b	.328		
Sa	.059		
Sb	.050		

The test statistic was the z value mentioned by Iacobucci *et al.*, (2007) was 4.488. The X → Y path coefficient is -.11, which suggested that the relationship was moderately significant. Therefore, this study can conclude that both the z and the direct path are significant, which demonstrates that the ORC construct is a “partial” mediator for the other two constructs.

In addition to the Sobel test, a Bias-Corrected (BC) bootstrap confidence interval method was followed to examine the significance of the mediation effects in a structural model. (see Lau & Cheung, 2010; Williams & MacKinnon, 2008). A simple procedure suggested by Lau & Cheung (2010) enables researchers to determine the relative strength of mediator(s) using MPLUS version 6.11. Mplus not only uses simple syntax form, it also allows researchers to use simple commands to obtain total indirect, specific indirect and total effects directly in the output file. As recommended by Cheung & Lau (2008), bootstrap sample was set at 1000 to minimize the problem when generating a small bootstrap sample (see MacKinnon *et al.*, 2004). **Table 5.33** presents the output file that detailed the estimated specific mediation effects, together with their BC bootstrap confidence intervals. It was shown that 95% BC confidence interval for the mediation effect Env02 → Receptivity → Cform does not contain zero (lower 2.5% limit = .109; upper 2.5% limit = .259), which indicated that the mediation effect is significantly different from zero.

**Table 5.33 Bias-Corrected Bootstrap Confidence Interval**

<b>Confidence Intervals of Total, Total Indirect, Specific Indirect, and Direct Effects</b>							
Effects from ENV02 to CFORM	Lower .5%	Lower 2.5%	Lower 5%	Estimate	Upper 5%	Upper 2.5%	Upper .5%
Sum of indirect	.087	.109	.118	.179	.248	.259	.284
Specific indirect							
CFORM RECEPTIV ENVI02	.087	.109	.118	.179	.248	.259	.284

## **5.14 CONCLUSION**

This chapter has focused on the development of the ORC scale, where each of the five receptivity factors were refined and reduced to four to ensure that each factor demonstrates high levels of convergent, discriminant and nomological validity. Furthermore, the chapter discussed how the study evaluated the possibility that the remaining four receptivity factors are first higher-order factors that represent a second higher-order construct (see Ramani & Kumar, 2008). The outcomes indicated that the factors do represent a second higher order construct, organisational receptivity towards change.

# Chapter 6

## Phase 3: Scale Evaluations and Hypothesis Testing

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### 6.1 INTRODUCTION

This chapter presents the third and final phase in the scale development process. The first purpose of this phase is to re-analyse all the validities and reliabilities of the scale, developed in the previous two chapters, using a new sample. The second purpose of this phase is to test the research hypotheses as discussed in Chapter 2. **Figure 6.1** illustrates the sampling procedure, sample selection, purpose and data analysis for this phase.

*Figure 6.1 Phase 3 Research Design*

PHASE 3: SCALE EVALUATIONS	
<b>Study 4:</b>  Scale Evaluations & Theory Testing	<b>Sampling Procedure:</b> Random Sampling <b>Sample:</b> Managers, Assistant Managers and Supervisors in Hotel industry <b>Purpose:</b> 1) To re-test for convergent and discriminant validity and nomological validity, 2) to determine the applicability of the framework in another research context, 3) Hypothesis testing <b>Data Analysis:</b> EFA and CFA, SEM

The first section of this chapter addresses the conceptual framework for this third phase as well as the choice of scale. The second section discusses the preliminary analysis of the scale and addresses issues related to demographic profile of the respondents, evaluation of each of the construct, determination of dimensionality through EFA analysis and internal consistency analysis. The third section presents the findings from the CFA analysis. In the fourth section the findings relating to the structural equation modelling (SEM) are presented, noting how the study compared various alternative models to determine the best fit statistics (see Sturman & Short, 2000; Holt *et al.*, 2007). Furthermore, the study includes another model that discusses

the role of control variables into the hypothesized model, along with the mediation test.

## 6.2 CONCEPTUAL FRAMEWORK FOR SCALE EVALUATIONS

The conceptual framework has been discussed extensively in chapter two. **Figure 6.2** and **Table 6.1** illustrate the hypothesized relationships between the factors.

*Figure 6.2 Conceptual Model*



*Table 6.1 Proposed Hypotheses*

Hypothesis	Valence	Statement
H <sub>1</sub>	+	Perceived Environmental Hostility positively influence ORC
H <sub>2</sub>	+	ORC positively influence Competitive Advantage
H <sub>3</sub>	+	ORC positively influence Organisational Performance
H <sub>4</sub>	+	Competitive Advantage positively influence Organisational Performance

## 6.3 CHOICE OF SCALE

Prior to hypothesis testing, this study first identified the scale to be used to measure each of the factors in the framework.

The independent factor (variable) for the framework is perceived environmental hostility. As mentioned in previous chapters, there are several variations in the operationalization of the factor. This study has changed the measure for this data collection stage from using Harrington and Kendall (2005) to the measures used in Newbert (2008). This was due to the fact that one factor in Harrington and Kendall

(2005) had weak Kaiser-Meyer Olkin (KMO) values which indicated that the factor was not appropriate for data analysis. Therefore, to prevent similar problems from occurring, this study has opted to change the measure for external environment to the measure that was developed by Khandwalla (1977) and has been used in numerous studies (Naman & Slevin, 1993; Newbert, 2008). The perceived environmental hostility was “designed to measure the degree to which the respondents perceived the organisation’s environment and was characterised by competition and risk” (Newbert, 2008; p.11). **Table 6.2** summarizes the items for this factor.

***Table 6.2 Summary of items for Perceived Environmental Hostility***

<b>Items:</b>
The business environment is threatening the survival of my hotel.
Tough price competition threatens the survival of my hotel.
Competitors’ product quality and novelty is high.

The mediating factor (variable) in the framework is the organisational receptivity towards change. Previous chapters have focused on the development and refinement of the measures that represent the organisational receptivity towards change. This factor consists of four sub-factors (receptivity factors) which are: ideological vision, leading change, institutional politics and change orientation. **Table 6.3** lists the items for each factor.

***Table 6.3 Summary of items for Receptivity Factors***

<b>Construct Name and Item</b>
<b>RF1: Ideological Vision</b>
My organisation's vision is clear to all employees
The top management has always considered the organisation's vision when developing new strategies
The change programme is in-line with my organisation's vision
My organisation's change policies are in-line with its vision
<b>RF2: Leading Change</b>
The change leader often create a team to help manage the change programme
The team usually comprises at least one senior manager
My organisation would give the change leader the power and authority to implement change
The change leader's knowledge on change management enhances the change implementation success
<b>RF3: Institutional Politics</b>
The change leader would use his/her relationship with these individuals/groups to implement change

The change leader would use his/her relationships with external contacts (government, media, or other influential people) to implement change  
The change leader would form alliances with these individuals to gain support  
The change leader formalizes participation procedures with all these individuals/groups

---

**RF:6 Change Orientation**

My organisation is always open about discussing issues relating to change  
My organisation would provide continuous support for employees involved in change  
The strategies to manage change are clearly defined  
The organisation always divides change programme into achievable target  
My organisation culture is very adaptive to change  
My organisation promotes knowledge transfer between different departments  
The organisation has the capacity to absorb new practices

---

## 6.4 PRELIMINARY DATA ANALYSIS

The other mediating variable in the framework is competitive advantage. This study follows the arguments made by Powell (2001) and Newbert (2008) where they claimed that competitive advantage and organisational performance are two separate factors. Newbert (2008) developed a new measure for competitive advantage. The construct consists of five sub-factors. **Table 6.4** summarizes the items for each of the sub-factors that measure competitive advantage.

***Table 6.4 Summary of items in Competitive Advantage***

---

**Financial Resource - Capability Combinations**

My hotel combines financial resources (e.g. cash, equity) and capabilities (i.e. management of financial resources or financial expertise) to ...

- Reduce its costs to a highly competitive level.
  - Enable it to fully exploit all targeted market opportunities.
  - Enable it to defend against all known competitive threats.
- 

**Human Resource - Capability Combinations**

My hotel combines human resources (e.g. level of training, experience, intelligence of individual employees) and capabilities (e.g. succession planning, training management, recruitment management) to...

- Reduce its costs to a highly competitive level.
  - Enable it to fully exploit all targeted market opportunities.
  - Enable it to defend against all known competitive threats.
- 

**Intellectual Resource - Capability Combinations**

My hotel combines intellectual resources (e.g. patents, copyrights, trademarks) and capabilities (e.g. management and expertise of intellectual properties or trademarks) to ...

- Reduce its costs to a highly competitive level.

Enable it to fully exploit all targeted market opportunities.  
Enable it to defend against all known competitive threats.

---

**Organisational Resource - Capability Combinations**

My hotel combines organisational resources (e.g. relationships with partners, suppliers, buyers and creditors or corporate culture) and capabilities (e.g. service culture management, standard operating procedures) to ...

Reduce its costs to a highly competitive level.  
Enable it to fully exploit all targeted market opportunities.  
Enable it to defend against all known competitive threats.

---

**Physical Resource - Capability Combinations**

My hotel combines physical resources (e.g. hotel rooms and facilities) and capabilities (e.g. facilities maintenance and management) to ...

Reduce its costs to a highly competitive level.  
Enable it to fully exploit all targeted market opportunities.  
Enable it to defend against all known competitive threats.

---

The final factor in the framework is organisational performance. This study used the same performance measures as discussed in the previous chapter which are measures used in Delaney and Huselid (1996) and Newbert (2008). **Table 6.5** lists the items for the factor.

***Table 6.5 Organisational Performance Measures***

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**Subjective Competitive Performance**

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Compared to other organisations that do the same kind of work, how would you compare your organisation's performance over the past 3 years in terms of ...

1. Marketing?
  2. Growth in Sales?
  3. Profitability?
  4. Market Share?
- 

The main sampling issue which can occur in the scale development process is the use of a totally new sample to evaluate scale performance. To avoid this problem, the study used samples from one specific industry which is the hospitality industry.

The questionnaires were distributed to hotel managers throughout Malaysia. This was possible using the Malaysian Association of Hotels (MAH) database. The database contains 388 members.

Baruch and Holtom (2008) reported that the survey response rate at the organisation level is usually much lower than at the individual level. The average response rate at the organisation level is 35.7 per cent whilst the individual response rate is 52.7 per cent. Baruch and Holtom (2008) highlighted the importance of using multiple methods to achieve a good response, including the ‘drop and pick’ mode. Therefore this study employed this method by hiring four research assistant to distribute questionnaires throughout Peninsular Malaysia. A total of 182 questionnaires were received: 63 via mail and 119 from the ‘drop and pick’ method.

### 6.4.1 Descriptive Statistics

The next step is to analyse the demographic profile of the respondents. The questionnaire has an organisation level focus therefore the demographic profile is divided into two: 1) key informant profile and 2) organisational profile.

The key informant profile indicated that a majority of the respondents were men (69.4%), aged between 40 - 49 (41.3%), with diploma level qualifications (40.6%), who have worked in the organisation for 1 – 3 years (35%) and are middle management level (45%). **Table 6.6** summarises the key informant profile.

**Table 6.6 Descriptive Statistics for Key Informant Information**

		Frequency	%	Valid %	Cumulative %
Gender	Male	111	69.4	69.4	69.4
	Female	49	30.6	30.6	100.0
	Total	160	100.0	100.0	
Age	< 29	18	11.3	11.3	11.3
	30-39	59	36.9	36.9	48.1
	40-49	66	41.3	41.3	89.4
	50-59	17	10.6	10.6	100.0
	Total	160	100.0	100.0	
Education	SPM	13	8.1	8.1	8.1
	Cert / Diploma	65	40.6	40.6	48.8
	Bachelor	61	38.1	38.1	86.9
	Professional Cert	18	11.3	11.3	98.1
	Post Grad	3	1.9	1.9	100.0
	Total	160	100.0	100.0	
Employment Length	< 1 year	15	9.4	9.4	9.4
	1-3 years	56	35.0	35.0	44.4
	3-7 years	51	31.9	31.9	76.3
	7-10	21	13.1	13.1	89.4

	> 10 years	17	10.6	10.6	100.0
	Total	160	100.0	100.0	
Employment	FT Employees	17	10.6	10.6	10.6
Status	Supervisor / Jr. Management	26	16.3	16.3	26.9
	Middle Management	72	45.0	45.0	71.9
	Sr. Management	42	26.3	26.3	98.1
	Board / Executive	3	1.9	1.9	100.0
	Total	160	100.0	100.0	

As for the organisation descriptions, the main response profiles were hotels aged between 11 – 20 years (40%), with hotel size of 51 – 250 employees (54.4%), chain hotels (56.9%) and four star hotels (33.8%). **Table 6.7** summarises the hotel profile.

**Table 6.7 Descriptive Statistics for Hotel Information**

		Frequency	%	Valid %	Cumulative %
Hotel Age	< 10 years	46	28.8	28.8	28.8
	11-20	64	40.0	40.0	68.8
	21-30	22	13.8	13.8	82.5
	31-40	18	11.3	11.3	93.8
	41-50	7	4.4	4.4	98.1
	> 50	3	1.9	1.9	100.0
	Total	160	100.0	100.0	
Hotel Size (Number of Employees)	< 50	24	15.0	15.0	15.0
	51-250	87	54.4	54.4	69.4
	251-500	36	22.5	22.5	91.9
	> 501	13	8.1	8.1	100.0
	Total	160	100.0	100.0	
Hotel Type	Independent	69	43.1	43.1	43.1
	Chain	91	56.9	56.9	100.0
	Total	160	100.0	100.0	
Hotel Star Ratings	1 Star	1	.6	.6	.6
	2 Star	12	7.5	7.5	8.1
	3 Star	53	33.1	33.1	41.3
	4 Star	54	33.8	33.8	75.0
	5 Star	40	25.0	25.0	100.0
	Total	160	100.0	100.0	

### 6.1.1 Missing Value Analysis

A total of 182 questionnaires were collected. About 12.1% (i.e. 22 cases) contained less than 25% responses from 94 questions in the questionnaire. Hair *et al.* (2010)

suggested that cases with 50% or more missing data be removed prior to analysis. This study opted to delete the 22 questionnaires from the sample which reduced the number of cases to 160 cases.

### 6.1.2 Concern of Sample Size for SEM

The appropriate sample size needed for the structural equation modelling analysis has been debated in the literature. Iacobucci (2009) strongly suggests that the minimal amount is 200 cases. One method to overcome this is to apply the N:p ratio (MacCallum *et al.*, 1999). Mostly researchers need to times an x amount of cases required per parameter that is being estimated. Therefore, it is important all the factors in the hypothesized model achieve unidimensionality. This means the factors should achieve a communality value greater than .60. By doing so, the sample of 160 would be adequate to be used in SEM analysis.

### 6.1.3 Outliers and Univariate and Multivariate Normality

The study has identified 3 cases with more than the  $\pm 3$  z-values. Thus, cases 29, 99, and 107 were deleted (Hair *et al.*, 2010; Ng & Houston, 2009). This leaves a total effective sample size of n=157.

Preliminary descriptive statistics revealed skewness and kurtosis were negative indicating a heavy right tail distribution with platykurtotic shape. In this case, normality assumptions would be violated for further multivariate analysis. Kolgomorov-Smirnov and Shapiro-Wilk's test of normality indicated that all items are significant at  $p < .05$ .

The study further investigated multivariate normality in the data gathered where the multivariate normality was violated in which Mardia's skewness and kurtosis  $p < .05$  (Mardia, 1970).

**Table 6.8 Test of Multivariate Normality**

Mardia mskewness = 348.3495	$\chi^2$ (5356) = 9300.356	$p < .001$
Mardia mKurtosis = 1189.207	$\chi^2$ (1) = 529.946	$p < .001$
Henze-Zirkler = 1.016555	$\chi^2$ (1) = 5.01e+05	$p < .001$
Doornik-Hansen	$\chi^2$ (62) 618.177	$p < .001$

In lieu of the previous multivariate normality remedy taken, this study used the normal score option available in LISREL 8.8 to convert the data to normality.

## 6.5 STEP 1 – SCALE EVALUATIONS

The first step is to run all the factors through EFA. The purpose is to determine unidimensionality of all factors and identify problematic items that do not perform well in measuring a particular factor. Once achieved, the study would run EFA on each factor individually to determine factor’s reliability.

### 6.5.1 Exploratory Factor Analysis of Antecedents, Mediators and Outcomes

The KMO value was .906 and the Bartlett’s test of sphericity was significant. The EFA demonstrated a 7-factor structure as predicted. Several items that cross loaded between two factors would serve as justification for item removal (Linderbaum & Levy, 2010).

**Table 6.9 Factor Loading for all the Constructs**

Item	Factor						
	1	2	3	4	5	6	7
SUMORG	.837						
SUMHR	.808						
SUMINT	.805						
SUMPHY	.784						
SUMFIN	.714					.337	
CHOR04		.653					
CHOR02		.638		.389			
CHOR11		.596				.302	
CHOR08		.587	.332				
CHOR01		.583					
CHOR10		.580					
CHOR03		.546					
VIS04			.746				
VIS05			.703				
VIS01			.698				
VIS03		.362	.657				
POL07				.839			
POL03				.718			
POL06				.702			

POL08		.682
LEAD04		.778
LEAD06		.772
LEAD05		.761
LEAD01	.346	.511
CPERF04		.719
CPERF01	.326	.708
CPERF02		.693
CPERF03		.578
EXT12		.788
EXT14		.783
EXT13		.700

### 6.5.2. Perceived Environmental Hostility

The KMO value for this factor was .730 and Bartlett’s test of sphericity was significant. The EFA results demonstrated that the factor achieve unidimensionality where each item’s factor loading was more than .70 as recommended by Hair *et al.* (2010).

**Table 6.10 Factor Loading for Perceived Environmental Hostility**

Item	Factor	Communalities
EXT14	.846	.716
EXT12	.801	.641
EXT13	.785	.616

The analysis of internal consistency reveals the Cronbach’s Alpha value for the factor is .852, which suggests high reliability. The inter-item statistics suggested that all items performed well at measuring the factor.

### 6.5.3 Organisational Receptivity towards Change

The ORC factor is a second-higher order construct that consists of four first-order constructs. The analysis of the factor begins with a group EFA to determine the unidimensionality of the four receptivity factors and to determine if any item cross-loads between factors.

Following this, the second step is to perform EFA on each factor separately. This is to further ensure unidimensionality and reliability of each receptivity factor.

The group EFA analysis revealed four sub-dimensions for the ORC factor. This is consistent with the findings from the previous chapter. All the factor loadings were more than the recommended value of .40, with item LEAD01 being the lowest (.616).

**Table 6.11** summarizes the findings.

**Table 6.11 Factor Loading for Organisational Receptivity towards Change**

Item	Factor				Communalities
	1	2	3	4	
CHOR04	.692	.317			.668
CHOR11	.692				.600
CHOR02	.675		<b>*.425</b>		.663
CHOR01	.647	.307			.644
CHOR10	.631				.587
CHOR08	.625	.342			.546
CHOR03	.595				.544
VIS04		.781			.713
VIS05		.747			.688
VIS03	<b>*.402</b>	.690			.726
VIS01		.687			.652
POL07			.864		.828
POL03	.304		.742		.771
POL06			.719		.575
POL08			.687		.615
LEAD06				.800	.724
LEAD04				.790	.704
LEAD05				.787	.724
LEAD01	.339	.373		.558	.589

\*Item with cross loading > 0.40 (Hair *et al.*, 2010)

However, the study found two items with high cross-loading values (CHOR02 and VIS03). A further analysis of each factor separately prior to the removal of these two items was required.

The first factor was ideological vision. The EFA results revealed a KMO value of .908 and Bartlett's test of sphericity was significant. It also demonstrated that the factor was a unidimensional factor where the factor loading value far exceeded the .40 value recommended by Hair *et al.* (2010).

**Table 6.12 Factor Loading for Ideological Vision**

<b>Item</b>	<b>Factor</b>	<b>Communalities</b>
VIS03	.865	.749
VIS04	.832	.692
VIS05	.813	.661
VIS01	.807	.650

The internal consistency analysis revealed a KMO value of .898 and Bartlett's test of sphericity was significant. All item-to-total and inter-item correlation values were more than the recommended values (Nunnally, 1978). Therefore all items were retained for further analysis.

The second factor was leading change. The KMO value for this factor was .820 and Bartlett's test of sphericity was significant. The EFA results demonstrated that all items loaded into one sub-dimension with the lowest factor loading of .682.

**Table 6.13 Factor Loading for Leading Change**

<b>Item</b>	<b>Factor</b>	<b>Communalities</b>
LEAD05	.853	.727
LEAD06	.851	.724
LEAD04	.816	.666
LEAD01	.682	.465

The internal consistency analysis revealed the Cronbach's  $\alpha$  value to be .876 and all items demonstrated high values in the inter-item correlation's matrix analysis. This suggested the retention of all items of this factor.

The third factor is institutional politics, where the KMO value was .795 and Bartlett's test of sphericity was significant. All items loaded into one sub-dimension with the lowest factor loading of .734 (POL06).

**Table 6.14 Factor Loading for Institutional Politics**

<b>Item</b>	<b>Factor</b>	<b>Communalities</b>
POL07	.910	.829
POL03	.863	.745
POL08	.774	.599
POL06	.734	.538

The analysis of inter-item correlation matrix suggested that the factor was reliable with the Cronbach's  $\alpha$  value of .891 and all items had inter-item correlations and item-to-total values of more than the recommended value (Nunnally, 1978).

The final factor was change orientation. The KMO value was .910 and the Bartlett's test of sphericity was significant. The EFA results demonstrated that all items loaded into one dimension with high factor loadings.

**Table 6.15 Factor Loading for Change Orientation**

Item	Factor	Communalities
CHOR04	.816	.666
CHOR01	.791	.625
CHOR10	.769	.591
CHOR11	.766	.587
CHOR02	.757	.573
CHOR03	.732	.536
CHOR08	.732	.535

The Cronbach's  $\alpha$  for this factor was .909, which suggested high reliability and all items have higher value than the recommended values in the inter-item correlation matrix analysis.

#### 6.5.4 Competitive Advantage

The competitive advantage factor was very unique as the factor consisted of five items which represent different resource-capabilities combinations, and includes 1) financial, 2) physical, 3) human resource, 4) organisational and 5) intellectual resource capabilities. In order to achieve these five different resource-capability combinations, the study totalled the sum scores of the three items measuring each combination. Therefore, only five items were included in the EFA. The KMO of the factor is .870 and Bartlett's test of sphericity was significant. All items loaded into one dimension and the factor loading was high.

**Table 6.16 Factor Loading for Competitive Advantage**

Item	Factor	Communalities
SUMORG	.941	.886
SUMINT	.888	.788
SUMHR	.908	.825
SUMFIN	.862	.742
SUMPHY	.907	.822

### 6.5.5 Organisational Performance

The KMO for organisational performance was .807 and Bartlett's test of sphericity was significant. All the items loaded into one dimension with the lowest factor loading at .696.

**Table 6.17 Factor Loading for Organisational Performance**

Item	Factor	Communalities
CPERF02	.788	.621
CPERF01	.777	.604
CPERF04	.770	.593
CPERF03	.696	.485

The Cronbach's  $\alpha$  value was .843 and all items' values in the inter-item correlation matrix were more than the recommended value (Hair *et al.*, 2010).

## 6.6 STEP 2 – SCALE EVALUATIONS

Once all receptivity factors were analysed for unidimensionality and reliability, they were then able to be tested for convergent and discriminant validity.

### 6.6.1 Convergent Validity Test

This study used three methods to determine the convergent validity: factor loading, composite reliability (CR) value and average variance extracted (AVE) value.

Firstly, all items should load into their intended factors and all the factor loadings must be more than .60 for the factor to achieve convergent validity (Ashill & Jobber, 2010). The lowest factor loading was .699 (LEAD01), suggesting that all factors have achieved convergent validity. **Table 6.18** summarizes all statistics relating to the determination of the factor's convergent validity.

The second method of determining convergent validity is through CR value. All factors demonstrated convergent validity where each factor's CR value exceeded the recommended value of .70 (Nunnally & Bernstein, 1994).

The analysis of the AVE value also indicated that all factors have achieved convergent validity, where all factor's AVE value was more than .50 (Hair *et al.*, 2010). The lowest AVE value was for organisational performance (.575).

**Table 6.18 Factor Loading for Competitive Advantage**

	Environmental Hostility	Ideological Vision	Leading Change	Institutional Politics	Change Orientation	Performance	Competitive Advantage	t-values
EXT12	0.768							
EXT13	0.775							9.239
EXT14	0.843							9.717
VIS01		0.82						
VIS03		0.893						13.222
VIS04		0.798						11.341
VIS05		0.796						11.308
LEAD01			0.699					
LEAD04			0.788					9.037
LEAD05			0.862					9.749
LEAD06			0.853					9.672
POL03				0.882				
POL06				0.745				11.092
POL07				0.861				13.973
POL08				0.794				12.260
CHOR01					0.808			
CHOR02					0.761			10.612
CHOR03					0.74			10.210
CHOR04					0.805			11.440
CHOR08					0.736			10.134
CHOR10					0.773			10.822
CHOR11					0.763			10.645
CPERF01						0.783		
CPERF02						0.779		9.673
CPERF03						0.709		8.749
CPERF04						0.76		9.431
SUMFIN							0.854	
SUMPHY							0.894	13.106
SUMHR							0.902	14.736
SUMINT							0.89	15.434
SUMORG							0.937	16.994
CR	0.838	0.897	0.878	0.893	0.911	0.844	0.953	
AVE	0.633	0.685	0.645	0.676	0.593	0.575	0.802	

**Goodness of Fit Statistics**

$\chi^2$  (413) = 727.007,  $p < .001$ , RMSEA = 0.070, SRMR = 0.063, NFI = 0.939, NNFI = 0.968, CFI = 0.971

## 6.6.2 Discriminant Validity Test

The assessment of the discriminant validity followed the similar methods to that undertaken in the previous chapter 5 (section 5.5.5). The first method of analysing discriminant validity is to evaluate the AVE values for each factor against the common variance shared (Fornell & Larcker, 1981). Based on **Table 6.19**, the analysis suggested that all factors discriminated against one another as the AVE value for each construct was greater than the common variance shared value for each pair.

**Table 6.19 Discriminant Validity AVE values**

Model Factor 1 (Factor 2)	AVE Factor 1 (Factor2)	$\phi^2$
Environmental Hostility - Ideological Vision	0.634 (0.687)	0.184
Environmental Hostility - Leading Change	0.634 (0.643)	0.241
Environmental Hostility - Institutional Politics	0.633 (0.679)	0.206
Environmental Hostility - Change Orientation	0.634 (0.593)	0.180
Environmental Hostility - Competitive Performance	0.634 (0.575)	0.055
Environmental Hostility - Competitive Advantage	0.634 (0.800)	0.159
Ideological Vision - Leading Change	0.687 (0.644)	0.272
Ideological Vision - Institutional Politics	0.687 (0.678)	0.272
Ideological Vision - Change Orientation	0.685 (0.593)	0.546
Ideological Vision - Competitive Performance	0.687 (0.575)	0.318
Ideological Vision - Competitive Advantage	0.687 (0.802)	0.264
Leading Change - Institutional Politics	0.643 (0.678)	0.203
Leading Change - Change Orientation	0.643 (0.593)	0.335
Leading Change - Competitive Performance	0.641 (0.575)	0.127
Leading Change - Competitive Advantage	0.643 (0.800)	0.220
Institutional Politics - Change Orientation	0.677 (0.593)	0.434
Institutional Politics - Competitive Performance	0.678 (0.575)	0.147
Institutional Politics - Competitive Advantage	0.679 (0.801)	0.265
Change Orientation - Competitive Performance	0.593 (0.574)	0.413
Change Orientation - Competitive Advantage	0.593 (0.802)	0.448
Competitive Performance - Competitive Advantage	0.575 (0.802)	0.354

The second method to evaluate discriminant validity is using nested models. Discriminant validity is achieved when the unconstraint model performs significantly better than the constraint model (Gerbing & Anderson, 1988). Based on **Table 6.20** all pairs, with the exception of three, achieved discriminant validity. Three factor pairs had the unconstraint models did not performed better than the constraint model,

which indicates that these factors did not achieve discriminant validity. The pairs were; 1) environmental hostility and competitive advantage, 2) leading change and competitive advantage and 3) organisational performance and competitive advantage.

it is was also necessary to analyse the change in chi-square, where discriminant validity is achieved when the change in chi-square between two models (with a degree of freedom of 1) is more than 3.841 (Gerbing & Anderson, 1988). The findings were consistent with the nested model analysis where the three pairs did not discriminate against one another. **Table 6.20** summarises the change in chi-square.

The change in chi-square findings suggested the competitive advantage construct had poor discriminant validity among the three other constructs. However, Gerbing and Anderson (1988) argued that model fit issues could also be contributed by issues related to small sample size, where the nested model is a structural equation model that is highly sensitive to sample size.

**Table 6.20 Discriminant Validity – Nested Models**

<b>Paired Measurement Models</b>	<b><math>\chi^2</math> (df) (Phi-matrix Unconstrained)</b>	<b><math>\chi^2</math> (df) (Phi-matrix Constraint)</b>	<b><math>\Delta\chi^2</math> (df)</b>
Environmental Hostility - Ideological Vision	26.208 (13)	50.347 (14)	24.139 (1)
Environmental Hostility - Leading Change	25.091 (13)	60.725 (14)	35.634 (1)
Environmental Hostility - Institutional Politics	28.187 (13)	55.152 (14)	26.965 (1)
Environmental Hostility - Change Orientation	65.236 (34)	94.814 (35)	29.578 (1)
Environmental Hostility - Competitive Performance	13.784 (13)	57.573 (14)	43.789 (1)
Environmental Hostility - Competitive Advantage	82.984 (19)	88.824 (20)	5.840 (1)
Ideological Vision - Leading Change	60.298 (19)	90.584 (20)	30.286 (1)
Ideological Vision - Institutional Politics	55.765 (19)	74.853 (20)	19.088 (1)
Ideological Vision - Change Orientation	99.763 (43)	114.244 (44)	14.481 (1)
Ideological Vision - Competitive Performance	36.661 (19)	65.460 (20)	28.799 (1)
Ideological Vision - Competitive Advantage	114.951 (26)	115.370 (27)	<b>*0.419 (1)</b>

Leading Change - Institutional Politics	62.506 (19)	94.283 (20)	31.777 (1)
Leading Change - Change Orientation	90.248 (43)	126.208 (44)	35.960 (1)
Leading Change - Competitive Performance	34.328 (19)	86.009 (20)	51.681 (1)
Leading Change - Competitive Advantage	100.360 (26)	108.743 (27)	8.383 (1)
Institutional Politics - Change Orientation	107.920 (43)	128.311 (44)	20.391 (1)
Institutional Politics - Competitive Performance	46.611 (19)	86.280 (20)	39.669 (1)
Institutional Politics - Competitive Advantage	98.599 (26)	100.270 (27)	<b>*1.671 (1)</b>
Change Orientation - Competitive Performance	63.241 (43)	100.020 (44)	36.779 (1)
Change Orientation - Competitive Advantage	123.852 (53)	124.218 (54)	<b>*0.366 (1)</b>
Competitive Performance - Competitive Advantage	91.427 (26)	100.437 (27)	9.010 (1)

\* $\Delta\chi^2$  (df=1) < 3.841

A decision was taken to test all constructs in the SEM for further analysis. Though the competitive advantage construct did not demonstrate discriminant validity using the nested model (Anderson & Gerbing, 1988), it did achieve discriminant validity using method by Fornell and Larcker (1981) which was a more stringent test.

## 6.7 STEP 3 – HYPOTHESES TESTING

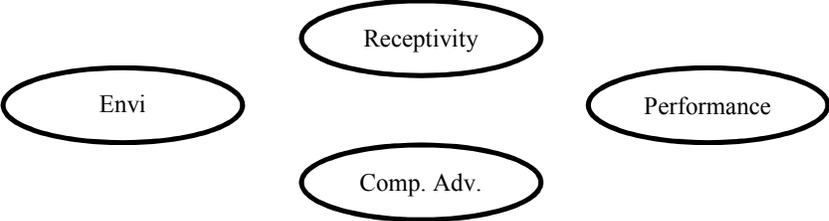
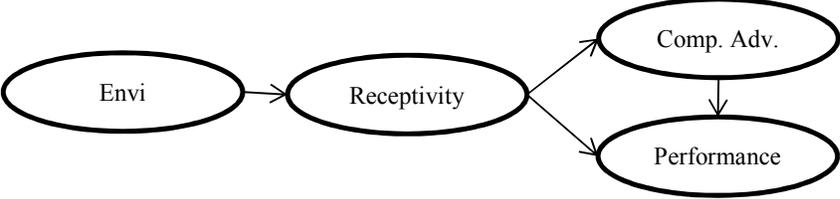
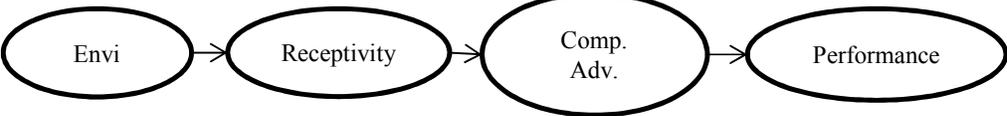
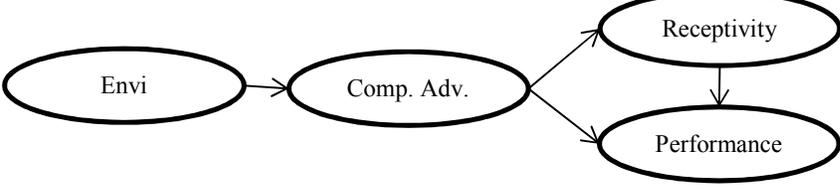
In this section, the hypotheses identified in **Table 6.21** would be tested. Hypothesis testing involves several measures and this section is divided into the four measures of analysis, being 1) determination of best model fit (see Sturman & Short, 2000), 2) hypothesis testing, 3) mediation test and 4) control variables

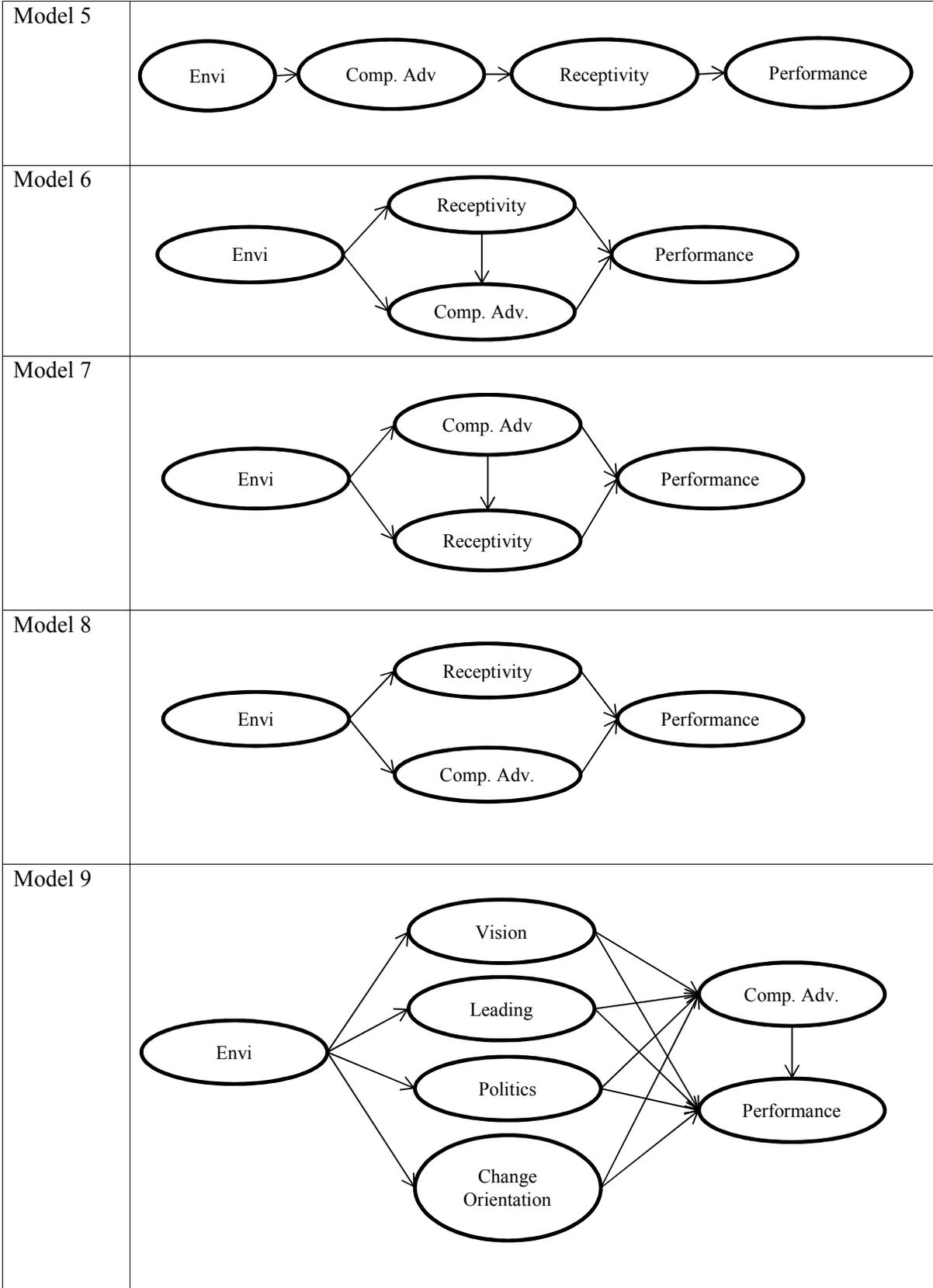
### 6.7.1 Model Evaluations

Several researchers have conducted model testing on scale development to test a model's fit with other alternative models (see Sturman & Short, 2000; Holt *et al.*, 2007). It provides a comprehensive approach where the performance of the hypothesized model is tested against other models (Sturman & Short, 2000).

This study identified 10 models, as alternative models to test against the conceptual model being developed. The first model is the null model which provides a baseline model for comparison. In the null model, the organisational performance factor is not allowed to load on all other constructs. Model 2 is (Table 6.21) the hypothesized model and shows the ORC factors mediate the relationship between environmental hostility and organisational performance, and competitive advantage mediates the relationship between the ORC factors and organisational performance. Table 6.21 summarizes the null model, hypothesized model and other alternative models.

**Table 6.21 Summary of Models**

Model	Relationships Between Constructs
Model 1	
Model 2	
Model 3	
Model 4	



The model fit is important in the assessment of a model, mainly because it provides evidence of adequate representation of the relationships between the constructs in a conceptual framework (Anderson & Gerbing, 1988). Several fit indices were used to evaluate the ten models, which are: 1) chi-square values, 2) Goodness of Fit (GFI) (Joreskog & Sorbom, 1996), 3) Comparative Fit Index (CFI) (Bentler, 1990), 4) Non-normed Fit Index (NNFI).

Based on the results, the hypothesized model was the model which attained the best model fit as compared to the alternative models. The fit statistics are  $\chi^2$  (df) = 212.518 (100), RMSEA = 0.085, SRMR = 0.055, CAIC = 430.543, NNFI = 0.965 and CFI = 0.970. The next two models with the best fit are model 6 and 7. **Table 6.22** summarises the fit statistics for all the models.

**Table 6.22 Goodness of Fit Statistics for All Models**

Model	df	$\chi^2$	RMSEA	SRMR	CAIC	NNFI	CFI
Model 2	100	212.518	0.085	0.055	430.543	0.965	0.970
Model 5	101	221.071	0.087	0.074	433.039	0.960	0.966
Model 4	100	216.402	0.080	0.069	434.427	0.961	0.967
Model 6	99	211.743	0.085	0.055	435.824	0.964	0.970
Model 7	99	211.743	0.085	0.055	435.824	0.964	0.970
Model 3	101	227.750	0.090	0.062	439.719	0.961	0.967
Model 8	100	262.766	0.102	0.139	480.791	0.946	0.955
Model 1	104	407.377	0.137	0.308	601.177	0.908	0.920
Model 9	421	890.570	0.085	0.096	1344.788	0.958	0.962

This analysis process for testing hypothesis was also used to analyse nomological validity of the scale. Findings indicated that the scale has achieved nomological validity because the scale performed as expected in a conceptual model; that is relationships between the receptivity factors and its antecedents and outcomes performed as expected.

### 6.7.2 Hypothesis Testing

It is now possible to analyse how well the receptivity factors performed as hypothesized in Chapter 2. First step is to analyse the model fit statistics to determine if the construct performed as theorized in the conceptual model. As discussed in the

previous section 6.7.1 the hypothesized model had attained the best model fit, with the following fit statistics; the goodness of fit statistics are  $\chi^2$  (df) = 212.518 (100), RMSEA = 0.085, SRMR = 0.055, CAIC = 430.543, NNFI = 0.965 and CFI = 0.970.

The second step is to look at the relationship of each factor individually based on the conceptual model. The hypothesized relationships are;

- Perceived Environmental Hostility → ORC
- ORC → Competitive Advantage
- ORC → Organisational Performance
- Competitive Advantage → Organisational Performance

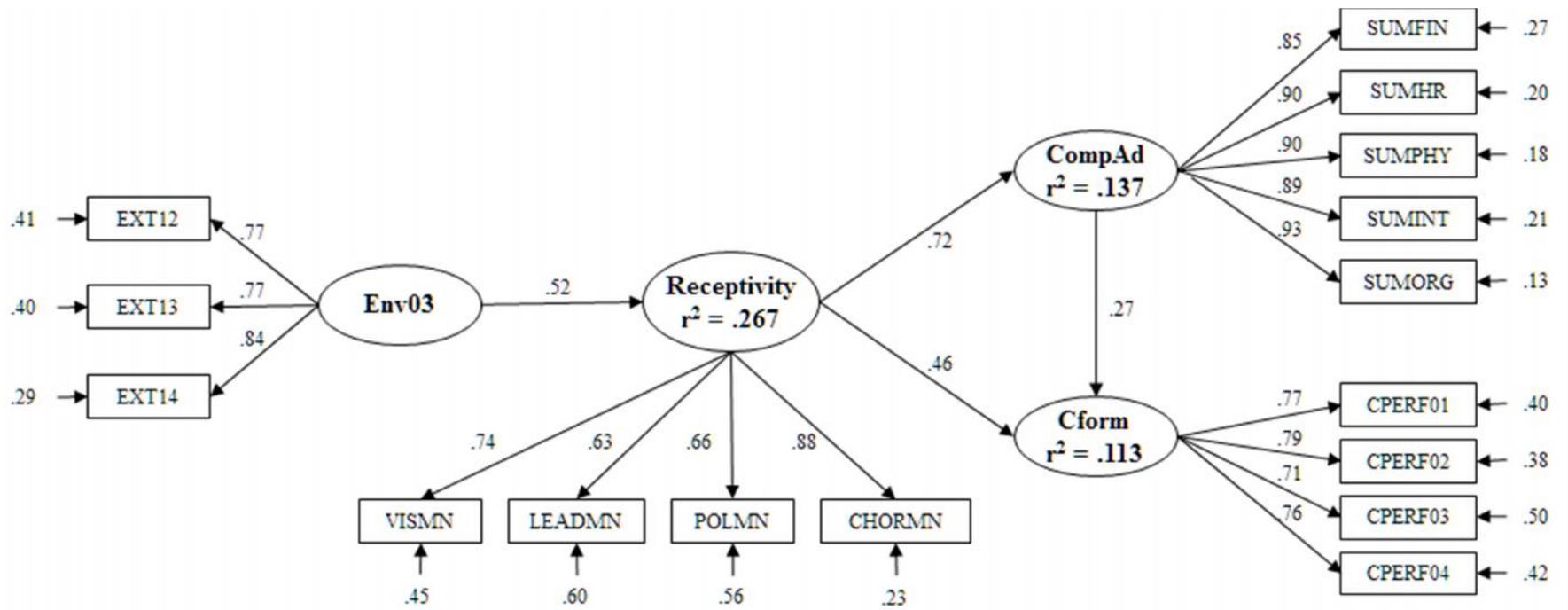
From the results, the relationship between perceived environmental hostility and ORC was strong where the  $\beta$  value was 0.52. The relationship between ORC and competitive advantage is stronger where the  $\beta$  value was 0.70. The  $\gamma$  value for the relationship between ORC and organisational performance was 0.47, which suggested a moderate relationship between the two constructs. The final relationship (competitive advantage and organisational performance) was weak, where the  $\beta / \gamma$  values slight passed the cut-off value of 0.20 as recommended by Cohen (1988).

The results indicated that all the hypothesized model's path coefficients and explanatory power ( $R^2$ ) for each dependent construct were strong. The results are displayed in **Figure 6.3** and listed in **Table 6.23**.

The first hypothesized relationship ( $H_1$ ) is the relationship between perceived environmental hostility and ORC. It was hypothesized that the more an organisation perceived their environment to be hostile, the more receptive the organisation is towards change. The findings were consistent with discussions by Butler and Allen (2008), Butler (2003), and Pettigrew *et al.* (1992) who all contended that the external environment played a significant role in triggering change within organisations by providing downward pressure on the organisation. This in turn influenced the motors of change (receptivity factors) in the organisation.

The findings also support the second hypothesized relationship (H<sub>2</sub>) in the conceptual model (ORC and competitive advantage). It was hypothesized that the ORC consisted of both organisational context and dynamic capabilities that allow the organisation to attain sustainable competitive advantage in hostile environmental conditions. The attainment of competitive advantage is achieved through the creation of economic value superior than the organisation's competitors (Peteraf & Barney, 2003). To do so, these organisations rely on their internal resources and capabilities to either produce greater benefits at the same cost (differentiation-based competitive advantage) or similar benefits at lower cost (efficiency based competitive advantage) as compared to their competitors (Peteraf & Barney, 2003). The literature on dynamic capabilities extended this concept by asserting that organisations often rely on higher-level capabilities to attain sustainable competitive advantage (Eisenhardt & Martin, 2000). These capabilities allow the organisation to “integrate, reconfigure, gain and release resources to match the demands of the market (external environment) change” (Eisenhardt & Martin, 2000; p. 1107). Ambrosini and Bowman (2009) claimed that these capabilities are embedded in an organisation, and are focused towards the organisation's efforts to change the firms' resources and adapt to changes in the external environment.

Figure 6.3 Structural Equation Model



$\chi^2(100) = 212.52$ ,  $p\text{-value} < .05$ ,  $RMSEA = .085$

**Table 6.23 Results of the Hypothesis Testing**

Indicator	Direction	Construct	Standardised parameter estimate	Unstandardised parameter estimate	SE	t-value	p-value
EXT12	←	Perceived Environmental Hostility	0.766	1.000			0.000
EXT13	←	Perceived Environmental Hostility	0.775	1.080	0.118	9.155	0.000
EXT14	←	Perceived Environmental Hostility	0.844	1.247	0.131	9.547	0.000
VISMN	←	Receptivity	0.739	1.000			0.000
LEADMN	←	Receptivity	0.634	0.796	0.105	7.574	0.000
POLMN	←	Receptivity	0.661	0.815	0.103	7.914	0.000
CHORMN	←	Receptivity	0.877	1.028	0.100	10.295	0.000
SUMFIN	←	Competitive Advantage	0.855	1.000			0.000
SUMPHY	←	Competitive Advantage	0.896	1.039	0.067	15.466	0.000
SUMHR	←	Competitive Advantage	0.903	1.116	0.071	15.720	0.000
SUMINT	←	Competitive Advantage	0.888	1.063	0.070	15.195	0.000
SUMORG	←	Competitive Advantage	0.935	1.109	0.066	16.854	0.000
CPERF01	←	Competitive Performance	0.774	1.000			0.000
CPERF02	←	Competitive Performance	0.785	0.963	0.100	9.584	0.000
CPERF03	←	Competitive Performance	0.708	0.915	0.106	8.626	0.000
CPERF04	←	Competitive Performance	0.764	0.956	0.102	9.328	0.000
Perceived Environmental Hostility	→	Receptivity	0.517	0.469	0.090	5.233	0.000
Receptivity	→	Competitive Advantage	0.716	2.075	0.266	7.791	0.000
Receptivity	→	Competitive Performance	0.457	0.356	0.098	3.624	0.000
Competitive Advantage	→	Competitive Performance	0.269	0.072	0.031	2.337	0.000

The receptivity factors can be extended into the dynamic capabilities where the factors act as a mechanism the organisation uses to achieve its intended strategic agenda. Findings from this study reveal that there is a strong relationship between the factors and competitive advantage. The strong correlation between the two factors suggests that the receptivity factors play a significant role in increasing competitive advantage.

The third hypothesized relationship (H<sub>3</sub>) examines the relationship between the ORC and organisational performance. It was hypothesized that the higher the receptivity factors then the higher the organisational performance. This is consistent with the literature on dynamic capabilities, where researchers posit that in high environmental uncertainty, organisations often rely on higher order capabilities to allow them to match the internal resources and capabilities with the environmental demands (Ambrosini & Bowman, 2009). However, most of the studies on ORC have not analysed the relationship between receptivity factors and organisational performance. Pettigrew *et al.*, (1992) recommend that future research on receptivity should try to identify antecedents and outcomes of receptivity. One possible outcome is organisational performance. Findings from the current study were consistent with the literature on dynamic capabilities, where it indicated a moderate relationship between ORC and organisational performance. Cohen (1988) suggests that  $\beta$  value of 0.50 indicates a strong relationship between the constructs. The  $\beta$  value for the hypothesized relationship was 0.47, which is slight below the suggested value (Cohen, 1988).

The fourth hypothesized relationship (H<sub>4</sub>) examines the relationship between competitive advantage and organisational performance. The hypothesis suggested that higher levels of competitive advantage would lead to higher levels of performance. Organisations that are able to adapt to environmental pressures are better able to sustain their performance. Proponents of RBV and dynamic capabilities theories claim that if a firm is able to exploit its resource-capabilities combinations effectively, they would be able to attain competitive advantage and improve their overall performance compared to competitors (Newbert, 2008; Porter & Millar, 1985; Zou *et al.*, 2003). However, some researchers have cautioned against using this

assumption to imply competitive advantage to be equivalent to organisational performance (Newbert, 2008). Newbert (2008) argued that the competitive advantage and organisational performance should remain separate because competitive advantage is not the only way organisations attain superior performance. There are many other factors that are exogenous to the firm that could significantly affect organisation performance levels. Furthermore, there are times when the costs to attain competitive advantage might not reap equivalent economic value to that used to create it (Newbert, 2008). The current study found that the two constructs are distinct, but the relationship between them is weak, where the  $\beta$  value is 0.20, just barely above the cut-off value recommended by Cohen (1988).

### 6.7.3 Test for Mediation

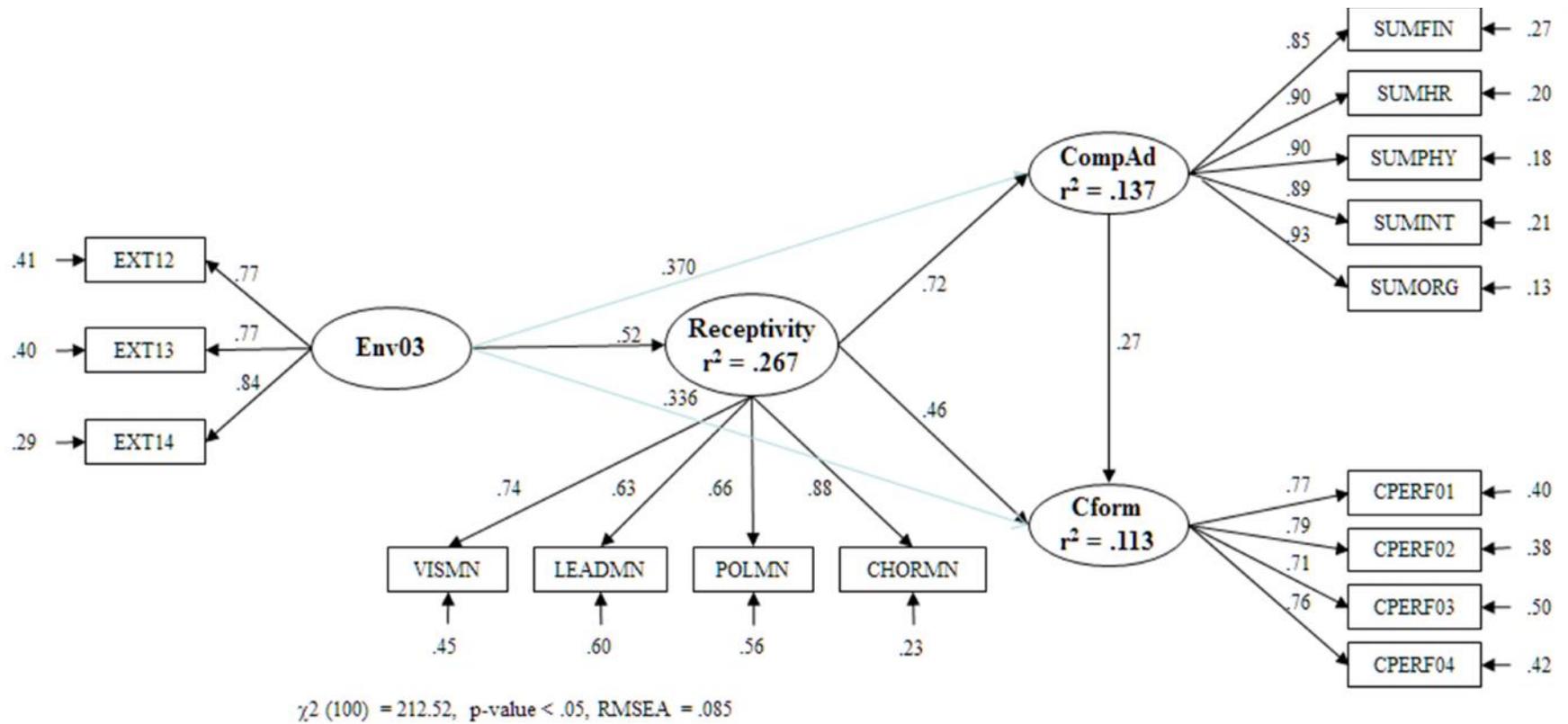
The final analysis to be undertaken is the mediation effect, where this study investigated the strength of the mediation effect between each of the constructs. The study replicated the steps that were conducted in the previous chapter 5 (section 5.13) as recommended by Iacobucci *et al.* (2007).

The first step is to fit the hypothesized model into SEM. Based on the results there were some mediation effects for ORC between perceived environmental hostility and organisational performance, where both  $X \rightarrow M$  (0.52) and  $M \rightarrow Y$  (0.46) path coefficient were significant.

There are some mediation effects for ORC between perceived environmental hostility and competitive advantage where the path coefficient values ( $X \rightarrow M$  (0.52) and  $M \rightarrow Y$  (0.72)) were significant.

Finally, the determination of the mediation effect of competitive advantage for ORC and organisational performance has suggested low mediation effect, where the path coefficient value between  $X \rightarrow M$  (0.72) and  $M \rightarrow Y$  (0.27) were not significant. The results demonstrated some mediation effects for both ORC and competitive advantage which allows the work to continue to the second step. **Figure 6.4** illustrates the path coefficient values for all the relationships.

Figure 6.4 Structural Equation Modeling



In the second step of the test for mediation, the z value was computed to test the relative size of the indirect (mediated) and the direct paths. The Sobel Test is a stronger test for mediation effects. The first test is the analysis of the mediating effect of ORC in the relationship between perceived environmental hostility and organisational performance. The z value is 4.06, which suggests partial mediation as suggested by Iacobucci *et al.* (2007). **Table 6.24** summarizes the results.

**Table 6.24 Sobel Test for ORC as a mediator between Perceived Environmental Hostility and Organisational Performance**

Key	Input	Test Statistics	p - value
a	0.469	4.06	0.000*
b	0.506		
Sa	0.090		
Sb	0.078		

\* $p < .001$

The effect of the ORC as a mediator between perceived environmental hostility and competitive advantage was tested next. The results identified a z value of 3.60 which suggests partial mediation. **Table 6.25** summarizes the results.

**Table 6.25 Sobel Test for ORC as a mediator between Perceived Environmental Hostility and Competitive Advantage**

Key	Input	Test Statistics	p - value
a	0.469	3.60	0.000*
b	0.973		
Sa	0.090		
Sb	0.195		

\* $p < .001$

A further test for mediation was the effect of competitive advantage between ORC and organisation performance. The results identified a z value of 2.23, which suggests partial mediation. **Table 6.26** summarises the results.

**Table 6.26 Sobel Test for Competitive Advantage as a mediator between ORC and Organisation Performance**

Key	Input	Test Statistics	<i>p</i> - value
a	2.075	2.23	0.026
b	0.072		
Sa	0.266		
Sb	0.031		

In addition to the Sobel Test, a Bias-Corrected (BC) bootstrap confidence interval method was followed to examine the significance of the mediation effects in a structural model (see Lau & Cheung, 2010; Williams & MacKinnon, 2008). **Table 6.27** presents the output file detailing the estimated specific mediation effects, together with their BC bootstrap confidence intervals. The 95% BC confidence interval for the mediation effects for the path ENV03 → RECEPTIV → CFORM did not contain zero (lower 2.5% limit = 0.071; upper 2.5% limit = 0.321) indicating the mediation effect is significantly different from zero. The 95% BC confidence interval for the mediation effect for the path of both RECEPTIV → COMPAD → CFORM (lower 2.5% limit = -0.048; upper 2.5% limit = 0.321) and ENV03 → RECEPTIV → COMPAD (lower 2.5% limit = 0.535; upper 2.5% limit = 1.410) did not contain zero. Hence all mediation effects were significantly different from zero (see **Table 6.26**).

**Table 6.27: Bias-Corrected Bootstrap Confidence Interval**

Confidence intervals of Total, Total Indirect, Specific Indirect, and Direct Effects							
Effects from ENV03 to CFORM	Lower .5 %	Lower 2.5%	Lower 5%	Estimate	Upper 5%	Upper 2.5%	Upper 5%
Sum of Indirect	0.029	0.079	0.104	0.235	0.366	0.391	0.440
Specific Indirect							
CFORM							
RECEPTIV							
ENV03	0.029	0.079	0.104	0.235	0.366	0.391	0.440
<b>Effects from RECEPTIV to CFORM</b>							
Sum of Indirect	-0.135	-0.054	-0.013	0.203	0.419	0.460	0.541
Specific Indirect							
CFORM							
COMPAD							
RECEPTIV	-0.135	-0.054	-0.013	0.203	0.419	0.46	0.541
<b>Effects from ENV03 to COMPAD</b>							
Sum of Indirect	0.202	0.245	0.266	0.379	0.492	0.514	0.556
Specific Indirect							
COMPAD							
RECEPTIV							
ENV03	0.202	0.245	0.266	0.379	0.492	0.514	0.556

#### 6.7.4 Control Variables

Finally, the study included the control construct into the conceptual model. The control constructs are: 1) hotel age, 2) hotel size, 3) hotel type and 4) star ratings. The first step analysed the fit statistics for the conceptual framework with the control variable against the conceptual framework without the control variables. **Table 6.28** summarises the fit statistics for both models.

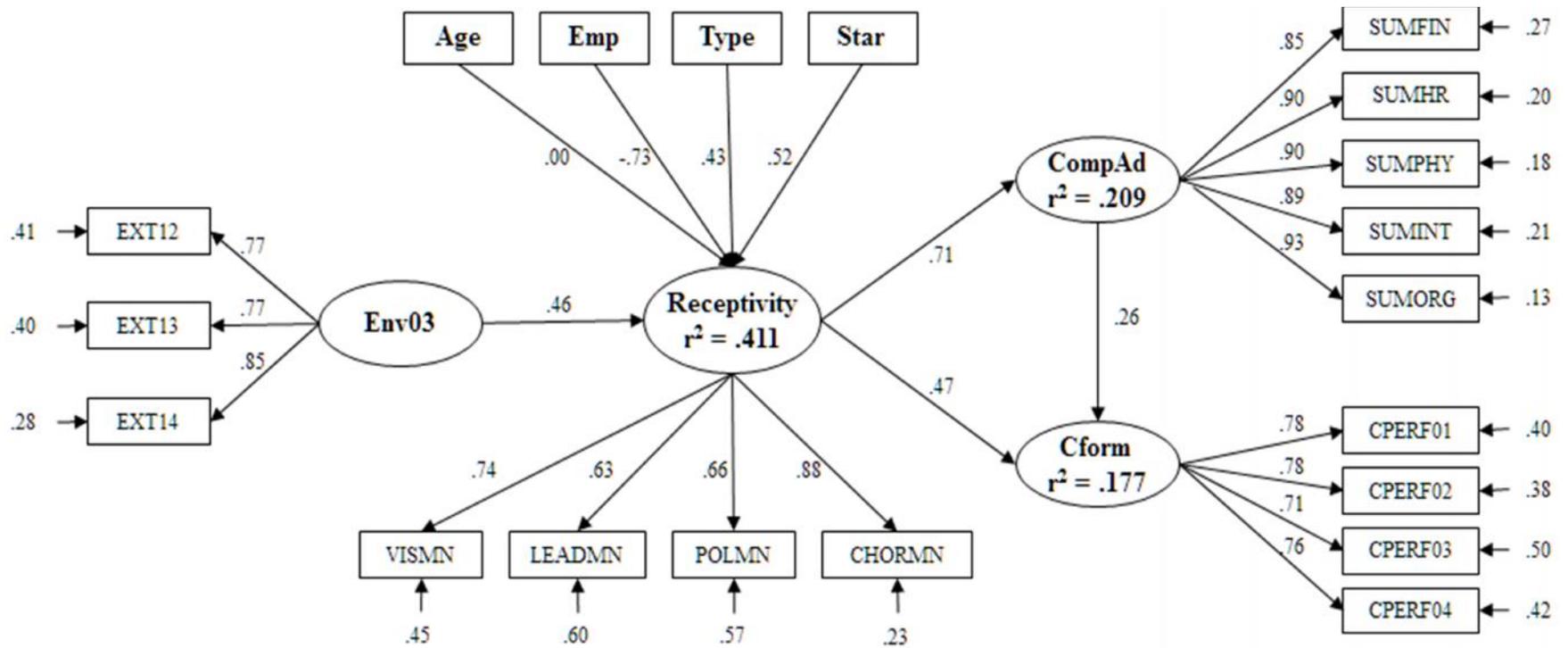
Based on the findings, this study found that the model with the control variables has better fit statistics. The fit statistics for the model with the control variables are  $\chi^2$  (df) = 267.570 (156), RMSEA = 0.068, SRMR = 0.060, CAIC = 594.607, NNFI = 0.965 and CFI = 0.972.

**Table 6.28: Results for Control Variable**

<b>Model</b>	<b>df</b>	<b><math>\chi^2</math></b>	<b>RMSEA</b>	<b>SRMR</b>	<b>CAIC</b>	<b>NNFI</b>	<b>CFI</b>
Without Control Variables	100	212.518	0.085	0.055	430.543	0.965	0.970
With Control Variables	156	267.570	0.068	0.060	594.607	0.965	0.972

Based on **Figure 6.5**, this study found that the size of the hotel had the strongest (negative) effect on the receptivity factors. Hotel size relates to the number of employees within the hotel. The findings suggested that having fewer employees in the hotel would strengthen the receptivity factors, while a higher number of employees weaken the receptivity factors. The star ratings also have an effect on receptivity factors, where the  $\beta$  value was .52.

Figure 6.5 Structural Equation Modelling – Conceptual Framework with Control Variables



$\chi^2 (156) = 267.57$ ,  $p\text{-value} < .05$ ,  $RMSEA = .068$

## **6.8 CONCLUSION**

This chapter reported on the rigorous process undertaken in the final phase of scale development. The study not only adopted recommendations made by Hinkin (1995) but also included other analyses that have been used recently in scale development and mediation literature (see Ashill & Jobber, 2010; Iacobucci *et al.* (2007); Lau & Cheung, 2010; Ramani & Kumar, 2008; Williams & MacKinnon, 2008). Furthermore, this chapter has discussed the conceptual framework and the research hypotheses. Several types of analyses were undertaken to achieve the goal of scale evaluation and hypothesis testing. All forms of analyses undertaken have been valuable to confirm and support the theoretical contributions of this study. The next chapter will discuss findings from the analyses in association with relevant literature.

# Chapter 7

## Discussion and Findings

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### 7.1 INTRODUCTION

The main theoretical contribution of this thesis is to include the receptivity factors with the RBV framework to explain competitive advantage. The receptivity factors, which consist of both institutional context and capabilities, explain how organisations are able to find the balance between the need to conform to institutional pressures and profit optimization (Oliver, 1997). Drawing on Oliver's (1997) proposition, this study combines institutional theory and RBV theory to provide a more holistic conceptual framework that addresses the theoretical contribution.

Furthermore, this study addresses the issue relating to the availability of a psychometrically sound scale to measure each of the receptivity factors and determine if the factors can be applied to the hospitality industry to explain how hotels achieve competitive advantage through the enhancement of the receptivity factors.

However, this study will have to first discuss the development of a scale for each receptivity factor (section 7.2). The development of each receptivity factor is crucial prior to applying the factors into the RBV framework. The discussion on scale development begins with a review of the scale development process and then continues to discuss development of each receptivity factor separately (section 7.3). The discussion of each factor will also determine the applicability of the scale to the hospitality industry.

Section 7.4 discusses the hypotheses based on the conceptual framework. This study posits that higher levels of receptivity factors will lead to a higher level of competitive advantage and organisational performance.

The discussion of findings then leads to section 7.5, which focuses on the main theoretical contribution regarding how ORC theory combines institutional theory and RBV theory. Doing so provides a more holistic understanding of how organisations adapt and achieve the right balance between conformity and profit optimization.

## 7.2 REVIEW OF THE SCALE DEVELOPMENT PROCESS

The notion of ORC emerged in 1992 by Pettigrew and his colleagues (Pettigrew *et al.*, 1992). They identified eight receptivity factors that affect the rate and pace of change. Their work has become the foundation for the development of the ORC theory, where it has been replicated by other researchers (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003). Butler (2003) further refined the eight receptivity factors into four to analyse the change implementation. The four receptivity factors consist of a combination of the eight receptivity factors in Pettigrew *et al.*'s (1992) ORC framework. The re-analysis of Butler's (2003) data has led to the development of another receptivity factor in the ORC framework (Butler & Allen, 2008). The current study adopted Butler (2003) and Butler and Allen's (2008) ORC framework because they have refined the receptivity factors, and enhanced generalizability by applying these factors to another research context. However, the current study still included the original eight receptivity factors in the scale development process to ensure more extensive and rigorous theoretical development of the ORC scale.

The scale development process started from the development of semi-structured questions for each receptivity factor. These questions were used to interview hotel managers to help refine each factor and identify the relevance of each factor in the new research context. The literature and findings from interviews further helped to develop all items that measure each receptivity factor.

The findings in this phase revealed that there were overlaps between the two ORC frameworks as described in Butler (2003). Previous findings demonstrated that the eight receptivity factors can be reduced to five receptivity factors (see Butler & Allen (2008)). The first receptivity factor in Butler (2003), ideological vision (**RF1**), was a combination of three Pettigrew *et al.* (1992) receptivity factors, being 1) quality and coherence of policy, 2) simplicity and clarity of goals, and 3) supportive organisational culture. The second factor, leading change, was similar to Pettigrew *et al.*'s (1992) key people leading change factor. The third factor, institutional politics, was the combination of two factors in Pettigrew *et al.*'s (1992) framework, namely, 1) long-term environmental pressures,

and 2) cooperative inter-organisational networks. The fourth receptivity factor, implementation capacity, consisted of two factors in Pettigrew *et al.*'s framework which are: 1) fit between change agenda and its locale, and 2) effective managerial-clinical relations.

As indicated, this study adopted Butler (2003) and Butler and Allen's (2008) receptivity factors in the development of the scale for the ORC framework. The development of measures was based on both theoretical definitions of each factor, as well as from the findings of semi-structured interviews.

Findings from interviews support the existence of sub-dimensions in each receptivity factor, like those in previous research (see Butler, 2003; Butler & Allen, 2008). The identification and development of the sub-dimensions were conducted to ensure that all aspects of the receptivity factors were covered, thus allowing a more comprehensive and rigorous item development of each factor.

Expert judges examined the relevance of the operationalization of measures. The main concern in this phase was the content validity of the newly developed measures. It was necessary to ascertain the relevance of each sub-dimension to the theoretical definitions based on Butler and Allen's (2008) work. Findings from this stage revealed two sub-dimensions for ideological vision (**RF1**), three sub-dimensions for leading change, two sub-dimensions for institutional politics, three sub-dimensions for implementation capacity and four sub-dimensions for possibility space.

Seventy six items were retained in the ORC scale refinement phase. There are eleven items for ideological vision (**RF1**). The first sub-dimension, "coherence and quality of vision" has five items, and the second sub-dimension "identification with culture" has six items. The leading change factor has fourteen items organised in three sub-dimensions. The division of items were four items in "leading change capacity", five items in "leading change capabilities", and five items in "leading change continuity." Institutional politics factor has a total of twelve items from two sub-dimensions, where "stakeholder's power" and "coalitions" have six items each. Next, implementation capacity factor has a total of nineteen items. The first sub-dimension, "change mechanism" has nine items. The second sub-dimension, "strategies for managing change" has six items, and finally the

third sub-dimension, “stakeholder’s involvement” has four items. Finally, possibility space factor has a total of twenty items. “No universal best practice” and “path dependency” sub-dimensions have four items each. “Organisational play” sub-dimension has five items, and “choice” sub-dimension has seven items.

Next, all seventy-six items were included in a questionnaire for the next phase of the scale development process. The objective of this phase was to remove items not relevant to the theoretical definition, and enhance the reliability and validity of the scale. The process also determined the dimensionality of each receptivity factor. This was achieved using Exploratory Factor Analysis (EFA) on each receptivity factor. The findings from this phase demonstrated that each receptivity factor has unidimensional constructs. However, all sub-dimensions collapsed to represent one dimension for each of the five receptivity factors. The removal of the items in each factor led to collapsing or combining the items from the sub-dimensions into one dimension.

At this point, it was necessary to analyse the reduced scale using Confirmatory Factor Analysis (CFA) to confirm the dimensionality of each factor and determine the reliability and validity of the scale. CFA analysis confirmed the unidimensionality of receptivity factors, and led to further item reduction. The total number of items in the ORC scale was reduced from seventy six to forty items where ideological vision (**RF1**) has seven items, leading change has nine items, institutional politics has six items, implementation capacity has ten items and possibility space has eight items.

However, implementation capacity and possibility space did not demonstrate discriminant validity. Both factors represented or measured one latent construct. The development of possibility space was based on the re-analysis of Butler (2003). The notion of possibility space explains the process of adaptation in organisations. It consists of organisational practices that have an impact on organisation’s receptivity for change (Butler & Allen, 2008). While, implementation capacity factor refers to the mechanisms used by leading change to influence change implementation (Butler, 2003).

These two definitions are closely linked to each other and can be tautological. This may have contributed to the items from both factors measuring the same latent construct. A re-analysis of those two factors using EFA determined that both factors did not achieve

unidimensionality. Findings revealed that all the items loaded into one factor, which suggested that all items represented one latent construct. The study named this construct “change orientation”.

As a result, only four receptivity factors remained as part of the ORC scale. These factors were then re-tested for reliability and validity. Using CFA, the scale achieved discriminant, convergent and nomological validity. It demonstrated receptivity factors as first-order constructs that represented a second higher-order construct. This confirmed receptivity factors as constructs that represent the organisation’s receptivity for change. Thus, the findings supported the assertion made by Pettigrew *et al.* (1992) that receptivity factors are institutional factors that affect the rate and pace of change within organisations.

In order to test the study’s three hypotheses and to validate the newly developed scale, the scale was included in another questionnaire distributed to hotel managers. The items were then re-evaluated using the same methods as Phase 2 of scale development. All items demonstrated high reliability and validity. Once reliability and validity were determined, all factors were tested in structural equation modeling (SEM) to be analysed for relationship with other factors in the RBV framework.

The following section will discuss each receptivity factor in more detail before discussing the relationship between each factor with other factors in the RBV framework.

## **7.2 EXPLORING THE RECEPTIVITY FACTORS**

The conceptualisation of each receptivity factor was based on the literature and the findings from the semi-structured interviews. This section will discuss each receptivity factor in greater detail prior to the discussion of the relationship between the receptivity factors and other factors in the RBV framework.

### **7.2.1 Ideological Vision (RF1)**

Butler (2003) divided ideological vision (**RF1**) into three sub-dimensions which are based on Pettigrew *et al.* (1992) receptivity factors, being: 1) quality and coherence of policy, 2) simplicity and clarity of goals and 3) supportive organisational culture.

Results from this study revealed only two sub-dimensions which are “coherence and quality of vision” and ‘supportive organisational culture.’ The first sub-dimension revolves around the discussion of the first two sub-dimensions listed above. Whereas, the second sub-dimension relates to culture.

The first sub-dimension relates to “coherence and quality of vision”. Hotels used their vision to counter external environmental pressures. Visions, strategies and objectives are constantly evaluated, and eventually shape the direction of the organisation. The sub-dimension also addressed how organisations respond to environmental opportunities and threats which set the need for change as well as the pace of change implementation. The findings are consistent with Butler’s (2003) discussion on how the two housing authorities develop strategic agendas to help the organisations change and achieve the desired outcome.

One difference between the current study’s findings and Butler’s (2003) findings revolves around the discussion of vision arising from various managerial ideologies. This study did not uncover linkages between managerial ideologies and development of vision. Most discussion on vision revolves around the use of vision to propagate change or enhancing propensity to change. Managers did not discuss how visions evolve from various management beliefs.

The second sub-dimension is “supportive organisational culture.” Butler (2003) proposed a linkage between vision and culture. However, this study only found one respondent that highlighted this relationship. Specifically, the respondent discussed how employees had a tough time adapting to the new culture after a merger and as a consequence, many left the hotel.

Most discussions on culture revolved around the role of vision in creating the right culture. Vision is used to create a mind-set that is more receptive and adaptive to change. It determines the strategies an organisation can adopt to counter environmental pressure. There are some similarities between findings in this study and Butler’s (2003) and Pettigrew *et al.*’s (1992) discussions on culture. Butler (2003) discussed how local authorities used vision to instigate and facilitate change, whilst Pettigrew *et al.* (1992) found several sub-cultures within the NHS, which are associated with high rate of change.

However, there are some differences found on culture. Contrary to Butler’s (2003) and Pettigrew *et al.*’s (1992) discussions, this study found that culture is related to change implementation rather than vision. It is more relevant to the creation of the right organisational context that allows an organisation to have the right capacity for change (Judge & Elenkov, 2009). A proactive culture inspires organisation members to adapt and respond to external and internal environmental change. This links the sub-dimension closely to the discussion on possibility space **(RF5)**

Yet, both sub-dimensions were retained in the next phase (scale development phase), where items were generated to address key discussions based on the study’s findings and literature. The sub-dimensions were also retained during the expert judge step to ensure that each item is relevant to the definition of ideological vision **(RF1)**.

The statistical analysis in step 2 and 3 in the scale development phase (second phase) suggested that ideological vision **(RF1)** is a unidimensional factor. Items from both sub-dimensions were removed and combined to create a robust scale to measure ideological vision. The final list of items suggests that items from “coherence and quality of vision” sub-dimension are stronger measures for ideological vision **(RF1)** as compared to items in the second sub-dimension, “supportive organisational culture”. The refined scale contained five items from the first sub-dimension and two items from the second sub-dimension.

Further analysis in the final phase (scale evaluation phase) removed more items from the scale. CFA finally reduced the items in the ideological vision **(RF1)** to four items. **Table 7.1** lists all the items for this factor.

***Table 7.1 Final list of Items for Ideological Vision (RF1)***

<b>Construct Name and Items</b>
<b>Ideological Vision (RF1)</b>
My organisation's vision is clear to all employees.
The top management has always considered the organisation's vision when developing new strategies.
The change programme is in-line with my organisation's vision.
My organisation's change policies are in-line with its vision.

The remaining items are related to how organisation vision plays an important role in enhancing the level of receptivity in the organisation. Items are also consistent with the outcomes from the semi-structured interviews where hotels place more emphasis on the vision's ability to set the course for change within the organisation, rather than how vision was developed and who was involved in the vision's development. The items reflect the importance of vision to set the course for the organisation by setting clear guidelines on the development of new strategies and policies. This relates back to institutional theory discussion on how vision directs the development of social behaviours of the members within the organisation (Greenwood & Hinings, 1996). Vision can be used to create meaning that reminds organisational members of organisation's core values (Washington *et al.*, 2008).

Vision also serves as a guideline for top management to design policies and new strategies. This is consistent with Butler's (2003) and Pettigrew *et al.*'s (1992) definition of vision, where it relates closely to the extend goals and methods of implementation are linked.

Findings indicated that linkages between vision and culture are not prevalent in ideological vision (**RF1**). All items relating to culture were systematically removed from the scale throughout the scale development process. This does not reflect Butler's (2003) discussion on "ideology" and how the strategic agenda (vision) arise from the interest of key stakeholders in the organisation. This further suggests that culture has a different role in enhancing the rate and pace of change implementation.

### **7.2.2 Leading Change (RF2)**

The second receptivity factor is leading change (**RF2**). The definition and discussion on this factor is similar to Butler's (2003) and Pettigrew *et al.*'s (1992) studies. The current study found four sub-dimensions: 1) the location of decision making, 2) who implements change in the organisations, 3) the actions of the change leaders, and 4) the continuity of the change leadership (Butler, 2003). All four sub-dimensions are consistent with literature and are relevant to the hotel industry.

The discussions on the first two sub-dimensions are closely related. Decisions regarding vision, strategic agenda, change strategies, and change implementation are decided at the top. The findings indicated the importance of a team in decision-making concerning organisation vision, strategic agenda, change program and implementation. The commitment of the heads of department is crucial in expediting change implementation. The creation of a team allows more key people to be involved in the change process. Involvement creates a sense of security for the various key players and stakeholders, thus reducing resistance towards change.

Consistent with discussions in Butler's (2003) and Pettigrew *et al.*'s (1992) studies, hotels often appoint a team to spearhead change implementation. Pettigrew *et al.* (1992) highlighted the importance of pluralistic leadership on change, where a group of people plays the key role in instigating and implementing change. Commitment to change is enhanced when more individuals are involved. The involvement of key players in decision-making process has a strong impact of rate and pace of change (Newton *et al.*, 2003). Furthermore, the location of the decision-making can affect the speed of change implementation, thus highlighting the importance of top management commitment to the change agenda (Butler, 2003).

The third sub-dimension addresses the importance of the person leading change's knowledge, capabilities and actions. Findings from the current study identified change leader's knowledge, authority and power are important tools for those leading change. Butler (2003) discussed the actions of two directors of the local housing authority in implementing strategic change noting how their actions affected the rate and pace of change. He further discussed the capabilities of these individuals in managing the change. The findings in the current study supported his claims that capabilities and knowledge of key people leading change impact change implementation where the capabilities are used to increase support for change amongst employees.

The fourth sub-dimension in this factor is importance of continuity. Contrary to the discussions in Pettigrew *et al.*'s (1992) study, the findings of the current study indicated that change in top management does not have a strong effect of the pace of change implementation if hotel headquarters or owners are managing the change programmes

directly. The hotel's headquarters or owners are the ones who provide the sense of continuity in leading change.

A total of forty-eight items generated based on the findings and literature. Two sub-dimensions (location of decision making and who implements change) were combined during the expert judge step. The new sub-dimension was given a new name, leading change capacity.

In the second phase, all sub-dimensions converged into one factor, leading change (RF2). The refinement of the scale in phase three further reduced the number of items to four items. **Table 7.2** lists the items for the final scale for this factor.

***Table 7.2 Final list of Items for Leading Change***

<b>Construct Name and Items</b>
<b>Leading Change</b>
The change leader often creates a team to help manage the change programme
The team usually comprises at least one senior manager
My organisation will give the change leader power and authority to implement these change
The change leader's knowledge on change management enhances the change implementation success

Three items remained from the "leading change capacity" sub-dimension, and one from the "leading change capabilities" sub-dimension. The list of items reflects the important discussions on this factor in the semi-structured interviews. One area of discussion was the location of decision-making, and the involvement of individuals and teams in change program development and implementation. Both issues are addressed in the first two items in the scale (refer to item 1 & 2 in **Table 7.2**). Results are also consistent with Butler (2003) and Pettigrew *et al.*'s (1992) views on leading change.

The third and fourth items reflect the importance of capabilities and power change leader's possessed to manage the change. Leading change factor relates to actions of the decision makers, which are how they plan, take opportunities, and type of interventions involved (Butler, 2003; Pettigrew *et al.*, 1992). The level of power and authority possessed by the change leader expedite change within the organisation. Findings from

the semi-structured interviews are consistent with findings from Butler's (2003) and Pettigrew *et al.*'s (1992) studies.

The fourth item is consistent with Butler's (2003) comments on the capabilities of two housing authority directors in implementing strategic change. It is consistent with the findings from the interviews in this study, where hotel managers highlight the importance of top management's knowledge and capabilities in managing change within the organisation.

The items in leading change draw on both institutional and RBV theories. The first two items draw on institutional theory to explain the inclusion of various stakeholders in change decision-making and implementation to create the commitment to values and missions of the organisation (Selznick, 1957). It addresses the role of key people leading the change in the institutionalisation process (Washington *et al.*, 2008). The other last two item in this factor draw on RBV theory to explain how organisation uses leaders as a resource to expedite change, and describe how the leader's capability can enhance the change implementation.

### **7.2.3 Institutional Politics (RF3)**

Institutional politics (**RF3**) discusses the importance of network structures and how it affects the rate and pace of change. Butler (2003) identified two sub-dimensions for this factor; 1) inter-organisational networks, and 2) the dynamics of these networks (Butler, 2003). However, findings from the interview uncovered four sub-dimensions: 1) type of network, 2) power relations, 3) support from other networks, and 4) political skills.

The first sub-dimension "type of network" is closely related to Butler's (2003) and Pettigrew *et al.*'s (1992) discussions on the networks used by change leaders to instigate and implement change. Findings in this study indicated that hotels used both formal and informal networks to create and implement change, which is consistent with Butler's (2003) findings. The support and commitment of various stakeholders in the organisation can foster positive alliance that creates high energy around change (Pettigrew *et al.*, 1992).

The second sub-dimension, “power relations” discusses the role of stakeholders (inside and outside) in change implementation, and how these individuals gain the power to affect change (Butler, 2003; Pettigrew *et al.*, 1992). Formal power comes from positional power, whilst informal power is based on relationships or coalitions the change leader has with various networks or stakeholders (Newton *et al.*, 2003). Butler (2003) discussed how the change of power between stakeholders or networks can change the dynamics of the strategic agenda’s implementation. Therefore, it is important for change leaders to be mindful and form strong relationships with these individuals or groups who have the power to help expedite the change. The interviews highlighted a majority of the change leaders or teams tend to use formal power to implement change. This is especially true for independent hotels with owners as the managing director. If the owner has a very ‘hands-on’ ideology, he/she will be the person who instigates the change, thus enhancing the rate and pace of change within the hotel.

The third sub-dimension for institutional politics (**RF3**) is “support of other networks.” This study found that hotel managers use internal networks more than external networks to instigate or implement change. The inclusion of various stakeholders through discussions and meetings increases the overall commitment to change. External networks are more focused on providing current knowledge concerning the industry and have little impact on the hotel’s strategic agendas. This creates some inconsistencies with Butler’s (2003) discussion. Butler (2003) argued that support from the local residents affects the housing director’s ability to implement change.

The final sub-dimension is “political skills.” Discussions from the findings indicated that it is important for the change leader to possess the political skills in balancing the demands of hotel headquarters or owners, with hotel employees. This is consistent with Butler’s (2003) assertion on the importance of gaining the support from various stakeholders to expedite change.

This study generated twenty-seven items based on the literature and findings from interviews. Various iterations of expert judges led to the consolidation of sub-dimensions as well as items for this factor. Two sub-dimensions (type of network and power relations) were consolidated and named stakeholder’s power. Two other sub-dimensions

(support of other networks and political skills) were also consolidated and named coalition.

The first sub-dimension focuses on the role of different stakeholders asserting their influence to either expedite or slow down the change implementation process. The second sub-dimension focuses on the change leader's political skills to gain support from key stakeholders. The items in the first sub-dimension focus on identifying which stakeholder has the most power on change development and implementation, whilst items from the second sub-dimension focus on how to manage the various stakeholders to instigate and manage change implementation.

The analyses of this factor in the final two phases of the scale development process led to the reduction of the sub-dimensions into one dimension. The final scale for institutional politics (**RF3**) consists of four items (see **Table 7.3**).

***Table 7.3 Final list of Items for Institutional Politics (RF3)***

<b>Construct Name and Items</b>
<b>Institutional Politics (RF3)</b>
The change leader uses his/her relationship with key individuals/groups to implement change
The change leader uses his/her relationships with external contacts (government, media, or other influential people) to implement change
The change leader forms alliances with these individuals to gain support
The change leader formalizes participation procedures with all these individuals/groups

The final four items are items from the second sub-dimension (coalition). All items from the first sub-dimension were removed from the scale. This suggests that the ability to manage the various stakeholders is vital in creating a high energy around change. These four items are closely linked to Butler's (2003) definition of the factor, which emphasise on the importance of formal and informal network structures in change implementation. These networks are dynamic and closely related to personnel change. The factor draws heavily on institutional theory, where it recognizes how organisations are embedded within networks, both internally and externally (DiMaggio & Powell, 1991). It also addresses how individual relationships can create pressures around change (Greenwood & Hinings, 1996). The ability to manage these networks enhances the organisation's receptivity towards change.

#### **7.2.4 Implementation Capacity (RF4)**

The fourth receptivity factor is implementation capacity (**RF4**). Butler (2003) divides this factor into four sub-dimensions: 1) change mechanism and strategies, 2) speed of implementation, 3) stakeholder's involvement, and 4) strategies for managing change.

The first sub-dimension is "change mechanism and strategies" where it reflects the many ways leaders manage and implement change within the organisation (Butler, 2003). Findings from the current study indicated that hotels are organised when it comes to managing change. They provide clear communication channels through various functional and hierarchical levels, which include constant discussion, education, and support between employees.

The second sub-dimension is the "speed of implementation" which reflects how fast change is being implemented within the organisation (Butler, 2003). Findings indicated that the speed of any change implementation is dependent on the readiness of employees to adopt the change. If changes were too rapid, employees might not be ready, thus creating resistance towards change.

The third sub-dimension is "stakeholder's involvement." It discusses the actions taken by various stakeholders to influence change implementation (Butler, 2003). Findings from the current study indicated that most hotels gain support and commitment through constant consultation and discussion with all employees. Making the top management as part of the team spearheading the change provides a sense of ownership on change initiatives. It will also ensure that the head of departments champion the change to their subordinates, thus accelerating the uptake of new strategies. This is consistent with Butler's (2003) explanation on how the passiveness of councillors and tenants allowed the housing director to implement change faster.

Finally, the fourth sub-dimension is "strategies for managing change." It includes all change strategies identified and used by change leaders. Hotels are proactive towards change and have mechanisms and processes that allow them to respond faster to environmental changes. One main mechanism discussed is the organisational culture. Hotel managers reported that their hotel create a strong culture that is open to learning

and change. Employees are encouraged to learn new skills, and are rewarded for their efforts. This relates closely to the discussion on organisational learning (Mohrman *et al.*, 1995), which relates to the assumptions in RBV theory.

From the literature review and analysis, implementation capacity factor comprised thirty seven items. Expert judge analysis further reduced the number to nineteen items. In the second phase, the number of items was further reduced and all items converged into one dimension. The analysis in the third phase further reduced the number of items to five items. These five items demonstrated high reliability and convergent validity.

**Table 7.4 Final list of Items for Implementation Capacity (RF4)**

<b>Construct Name and Items</b>
<b>Implementation Capacity (RF4)</b>
My organisation is always open about discussing issues relating to change.
Employees are well informed of the change programme progress.
My organisation would provide continuous support for employees involved in change.
The strategies to manage change are clearly defined
The organisation always divide change programme into achievable targets.

The first three items relate to how the organisation creates mechanism that increases the level of support from the employees. The mechanisms are the openness of discussion, clear communication, and continuous support for employees. The three items draw on institutional theory where they discuss how lack of support from the employees can create blocks of change (Greenwood & Hinings, 1996). The items also draw on RBV theory by identifying specific capabilities and competencies to address these blocks of change (Oliver, 1997). Oliver (1997) posited that organisations need to understand the social context in which resource optimization decisions are made. This enables the organisations to manipulate the context to create sustainable competitive advantage. Through this change mechanism, hotels are able to generate the right mind-set around change that allows the organisation to adapt faster to environmental pressures (Oliver, 1997).

However, the five items in this factor (**RF4**) failed to discriminate with items in possibility space (**RF5**) factor. This suggested that items in this factor represent the same phenomena as the items in possibility space (**RF5**) factor. Thus, the current study merged

both implementation capacity (RF4) and possibility space (RF5) factors. This study will discuss possibility space (RF5) factor prior to discussing the development of a new receptivity factor, change orientation (RF6). Change orientation (RF6) factor consists of items from both implementation capacity (RF4) and possibility space (RF5) factors.

### **7.2.5 Possibility Space (RF5)**

Possibility space (RF5) emerged from Butler and Allen's (2008) re-analysis of Butler's (2003) data. This factor is divided into four sub-dimensions: 1) no universal best practice, 2) organisational play, 3) path dependency, and 4) choice.

The first sub-dimension "no universal best practice" refers to the notion that there is no simple, single recipe for organisations to follow that will enhance their organisation's performance (Butler & Allen, 2008). The findings indicated that hotels have some level of standard operating procedure that most hotels adhere to, but this is mainly related to job function. None of the hotels reported any form of standardised strategic agenda to enhance performance. This is consistent with Butler and Allen's (2008) assertion. The results indicated the level of government intervention is low in the hospitality sector, thus reducing environmental pressures to create a best practice approach to managing hotels. The discussion of this particular sub-dimension is grounded in the institutional theory discussion on isomorphism. Homogenization exists when organisations are forced to resemble one another to attain legitimacy (Scott, 1997). Isomorphic pressures (coercive, mimetic or normative) lead to standardization in the industry (DiMaggio & Powell, 1983). The current findings indicated that hospitality industry faces stronger normative pressure, where industry standards are focused on operations and bounded by educational background of its employees. Most employees are graduates from tourism and hospitality schools who are trained to work in a hotel.

The second sub-dimension is "organisational play" which relates to the need for spare capacity allowing the organisation to implement new changes from within (Butler & Allen, 2008). Organisational play generates ideas to allow managers to have knowledge of factors that contribute to learning and creativity (Teece *et al.*, 1997). This sub-dimension draws on RBV theory to explain how organisations are able to continuously exploit their resources and capabilities to attain competitive advantage (Amit &

Schoemaker, 1993). The results indicated that hotels promote learning amongst employees, where employees are motivated to learn multiple skills, new job functions, and different systems within the hotel. Learning and flexibility have been adopted as part of the hotel's culture. Another method is through recruitment of graduates from hospitality universities and colleges. These students are exposed to the job functions of the industry, thus allowing greater flexibility and responsive human resources. These capabilities can be developed by education or "learning by doing" that allows the organisations to adapt to rapidly changing environmental conditions (Eisenhardt & Martin, 2000).

The third sub-dimension is "path dependency" which explains how the interactions between existing and new practices produce new attributes and capabilities (Butler & Allen, 2008). The current findings indicated that hotels created a culture that supports learning and flexibility. The selection of employees who received specific training from tourism and hospitality schools provides hotels with flexible and adaptive workforce. Promotion of cross-functional training and learning within the hotels also increases the hotel's capacity for change. The findings differed from Butler and Allen's (2008) which discussed how failure to integrate new practices with existing ones led to an unsuccessful change implementation. In this study, the author discussed the role of existing practices and procedures that enables change. Both institutional theory and RBV theory recognize that resources and capabilities are path dependent that can only be developed over time (DiMaggio & Powell, 1983; Barney, 1991). The difference lies in how the two theories discuss the role of path dependent on organisation's homogeneity or heterogeneity. Institutional theory discusses path dependency as a source of inertia (Greenwood & Hinnings, 1996) whilst the RBV theory discusses path dependency creates resources and capabilities that are valuable, rare, inimitable and non-substitutable (Barney, 1991). Institutional theorist categorised culture as an organisational context, whilst RBV theorist categorised culture as intangible resources (Hall, 1992). This study posits the discussion of path dependency sub-dimension is more theoretically similar to the discussions in institutional theory, whilst the view of culture as an intangible resource is more prevalent in the discussion of the fourth sub-dimension (choice).

The fourth sub-dimension “choice” looks at the idea of organisations having extra capacity to change and grow. The emphasis is on the role of knowledge, learning and capacity building (Butler & Allen, 2008). The notion of choice draws on RBV theory, where organisational culture is viewed as an intangible resource that creates the capability to integrate new practices with existing ones (Eisenhardt & Martin, 2000). Findings from this study indicated that hotel culture promotes adaptability and flexibility among employees. Capacity building is adopted as part of the culture. Top management often promotes learning and skill enhancements, where employees are encourage learning through internal and external trainings. The promotion of cross-functional training creates a higher capacity to adapt to new systems, processes and requirements. This enhances the organisation’s flexibility and adaptability to changing environmental conditions. From the interviews, chain hotels promote knowledge transfers between all branches, where the top management of different branches visits other hotels to learn from them. Some hotels even allow their employees to work in other branches for a short period of time to enhance their openness to new experiences, and gain knowledge on how things are conducted in different branches.

Seventy-four items were generated based on literature and qualitative findings. The statistical analysis (EFA) found that there were numerous redundancies among the items, which led to the removal of majority of the items. All the sub-dimensions converged into one dimension. The final iteration reduced the possibility space (**RF5**) factor to only four items (see **Table 7.5**).

***Table 7.5 Final list of Items for Possibility Space (RF5)***

<b>Construct Name and Items</b>
<b>Possibility Space (RF5)</b>
My organisation’s culture is very adaptive to change.
My organisation’s systems are flexible and able to accommodate new changes.
My organisation promotes knowledge transfer between different departments.
My organisation has the capacity to absorb new practices.

The scale demonstrated high reliability and convergent validity but failed to demonstrate discriminant validity with implementation capacity. The study re-ran both factors, implementation capacity and possibility space, through another EFA and found that all

items loaded into one factor. This meant that all items represented one latent construct. The study then named this construct “change orientation.”

### **7.2.6 Change Orientation**

In order to create a more parsimonious scale, items from both implementation capacity and possibility space factors were combined. The decision was not only based on statistical analysis, but also on the theoretical underpinnings of both constructs.

The results from EFA demonstrated that all items from implementation capacity and possibility space loaded into one factor. The items from implementation capacity are items that describe different organisational mechanisms involved in change implementation processes. Items in possibility space are items in the “organisational play” and “choice” sub-dimensions, which are factors closely related to mechanisms that affect change implementation directly.

Therefore, the two constructs were combined. CFA confirmed that all items loaded into one dimension. However, modification indices led to the removal of more items for this construct. The final scale for this factor consisted of four items from implementation capacity and three from possibility space. The new scale demonstrated high reliability, convergent and discriminant validities. **Table 7.6** lists the items for the construct.

***Table 7.6 Final list of Items for Change Orientation***

<b>Construct Name and Items</b>
<b>Change Orientation</b>
My organisation is always open about discussing issues relating to change
My organisation provides continuous support for employees involved in change
The strategies to manage change are clearly defined
The organisation always divides change programme into achievable targets
My organisation culture is very adaptive to change
My organisation promotes knowledge transfer between different departments
The organisation has the capacity to absorb new practices

Findings from the scale development process led to the merger of the two receptivity factors (implementation capacity and possibility space). The merger of the two factors was not only based on statistical analysis, but also on theory. Theoretically, the definition

of the two items is tautological, where the focus of both receptivity factors is on the types of mechanisms that increase the organisation's capability to implement changes.

Butler (2003) described implementation capacity as receptivity factor that looks at the mechanisms change leaders use to overcome issues relating to change inhibitors. The objective of these mechanisms is to expedite the implementation of a new strategic agenda or policy. The development of possibility space as the fifth receptivity factor also revolves around identification of various methods or mechanisms that allow organisations to have the flexibility and adaptability to change (Butler & Allen, 2008).

The main emphasis of both definitions is the mechanism and methods that allow organisations to be flexible to change. There is a strong theoretical linkage between the two theoretical constructs, where both constructs focus on different organisational factors that enhance capability to change. McNulty and Ferlie (2004) assert that organisations should focus on “enabling dynamics” to enhance the organisation's capacity for action. The capacity for action refers to the “ability to manage the transition between templates of organising” (Greenwood & Hinings, 1996; p. 1039).

When combined, the items in this new factor are also similar to other theories that address issues on organisation flexibility and adaptability, which are organisational capacity for change (Judge & Elenkov, 2005; Judge & Douglas, 2009), and absorptive capacity (Cohen & Leventhal, 1990). The list of new items measures various organisational routines, processes and culture which facilitate change and transformation (Cohen & Leventhal, 1990; Butler & Allen, 2008; Judge *et al.*, 2009).

Therefore, this new construct is named change orientation. It is defined as the “organisation's routines, mechanisms and culture that facilitate change and transformation.”

### **7.2.7 ORC as a Second Higher-Order Construct**

Pettigrew *et al.* (1992) assert that the ORC framework consists of various organisational factors, which affect the rate and pace of change. The framework represents a group of receptivity factors identified as enablers or inhibitors of change (Butler, 2003).

Therefore, this study evaluated the possibility of receptivity being a second higher-order construct reflected by four first-order constructs.

Through CFA, all four receptivity factors were allowed to correlate freely with one another. The analysis yielded positive results where the ORC scale achieved model fit. The next evaluation was to run the CFA on the four factors using a hierarchical model and compare the goodness-of-fit indices between the hierarchical model and the first model (see Ramani & Kumar, 2008). The findings demonstrated that the second higher-order model achieved a better model fit than the first-order four-factor model. The results support the arguments made by all authors in the ORC theory when they defined the various receptivity factors as a group of organisational factors that affect the rate and pace of change (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992).

The final evaluation was the nomological validity of ORC. The study ran the receptivity factors with one antecedent (external environment) and one outcome (organisational performance) in the structural equation modeling (SEM) to analyse the relationships. The results demonstrated that the scale achieved nomological validity indicating strong linkages between the receptivity factors and its antecedents and outcome.

The next section discusses the study's hypotheses and explains how the ORC scale helped determine the relationship between the receptivity factors and other factors in the RBV framework.

### **7.2.8 Comparison between the ORC scale and Organisational Capacity for Change (OCC) Scale**

The OCC was developed by Judge and Elenkov (2005; p. 893) where they define OCC as a “dynamic organisational capability that allows the enterprise to adapt old capabilities to new threats and opportunities, as well as create new capabilities.” Specifically, OCC is referred as the “dynamic resource bundles comprised of effective human capital at varying levels of the business unit, with cultural predisposition towards innovation and accountability, and organisational systems that facilitate organisational change and transformation” (Judge *et al.*, 2009; p. 1739). OCC looks at factors similar to those of

ORC (i.e. leading change, vision, culture, and change implementation) however, the level of analysis differs.

Judge *et al.* (2009) argue OCC theory has some similarities with the theory of absorptive capability (Cohen & Leventhal, 1990). Similarity to absorptive capacity exists as both constructs are conceptualised as dynamic capabilities that characterise how organisations change and adapt. However, absorptive capability focuses exclusively on organisational routines and practices (Cohen & Leventhal, 1990) whereas the OCC focuses on aspects such as organisational routines and practices, leadership talent and employee attitude (Judge & Douglas, 2009; Judge & Elenkov, 2005; Judge *et al.*, 2009).

The OCC is also conceptually similar to organisational readiness for change (Armenakis *et al.*, 1993). Both theories address issues relating to organisation receptivity to change and organisation resilience (Judge *et al.*, 2009). However, organisational readiness for change theory focuses on the individual level, exclusively on employees' attitude towards change.

As compared to the theories above, the emphasis of ORC theory focuses on much wider and comprehensive institutional factors that affect the rate and pace of change (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992). ORC theory looks solely at the institutional context and does not take into account individual levels of receptivity. When comparing ORC to OCC, there are differences in factors between the theories. The OCC theory consists of eight factors, which are: 1) trustworthy leadership, 2) trusting followers, 3) capable champions, 4) involved mid-management, 5) innovation culture, 6) accountable culture, 7) effective communication, and 8) systems thinking (Judge & Douglas, 2009).

However, there are some similarities between the definition of some factors in OCC and ORC. The first similarity is between capable champions and leading change, where these two factors discuss the role of change leaders as well as their capabilities and knowledge relating to change. The second similarity is between the two OCC factors on culture (innovation culture, and accountable culture) and possibility space. All these factors focus on higher-level institutional contexts that allow organisations to be more flexible and adaptive to environmental changes (Butler & Allen, 2008; Judge *et al.*, 2009). The

third similarity is between two OCC factors (effective communications, and systems thinking) with implementation capacity. These factors focus on institutional contexts that play a role in implementing change within the organisation (Judge *et al.*, 2009; Butler, 2003). Nonetheless, the emphasis of the operationalization of items for the OCC scale and the ORC scale differs. The OCC scale items encompass two levels of analysis (institutional level, and individual level) whilst the ORC scale items are focused exclusively at the institutional level, making these two scales different from one another.

### **7.3 HYPOTHESES TESTING**

Studies on scale development typically conduct model testing prior to hypothesis testing (see Ashill & Jobber, 2010; Ramani & Kumar, 2008). A more comprehensive approach involves testing the hypothesized model against multiple logical alternatives to determine which model attains the highest model fit (Sturman & Short, 2000). Following the approach, the results from the current study demonstrated that the hypothesized model is the best-fit model. The hypothesized relationships for the current study's conceptual model are:

- Perceived Environmental Hostility → ORC
- ORC → Competitive Advantage
- ORC → Organisational Performance
- Competitive Advantage → Organisational Performance

The literature on ORC often discussed the role of the external environment as one key pressure that can trigger change within an organisation (Pettigrew *et al.*, 1992). The environment is a motor of change that provides downward pressure on the organisation to instigate change (Butler, 2003). The discussion of external environment is not only exclusive to change studies but also to the Resource-Based View (RBV) and Dynamic Capabilities (DC) studies. Helfat *et al.*, (2007) even suggested that a dynamic environment calls for dynamic capabilities. Following the DC approach, the attainment of sustainable competitive advantage is not on the value of the individual resource, but rather on the synergistic combination or bundle of resources created by the firm (Kraaijenbrink *et al.*, 2010). Therefore, the main emphasis of DC is on the higher order capabilities of developing these synergistic combinations.

ORC, as a higher-order capability, allows the organisation to counter the downward pressure of the external environment by enhancing their ability to change and adapt faster (Butler & Allen, 2008). The findings from this study support the above argument where there is a positive relationship between Perceived Environmental Hostility and ORC.

Both RBV and DC theories assume the role of organisational resources and capabilities as the source of the organisation's competitive advantage (Barney *et al.*, 2011). The ORC fits into the DC's view where the receptivity factors act as a mechanism the organisations utilises to achieve their strategic agenda (Butler & Allen, 2008). Findings from this study support that ORC plays an important mediating role in the attainment of competitive advantage for the hospitality industry.

Furthermore, both RBV and the DC theories posit that various organisational resources and capabilities are the main sources to help an organisation increase performance levels, especially in dynamic and turbulent environmental conditions (Ambrosini & Bowman, 2009). Pettigrew *et al.* (1992) recommended that future research on ORC should focus on the effects of ORC on organisational performance.

Testing of the first hypothesis revealed there is a high correlation between perceived environmental uncertainties in the organisation and receptivity towards change. The  $\beta$  value is .46 which indicates a significant relationship between the two factors. Previous literature on ORC suggested that the external environment plays an important role in triggering periods of radical change in organisations (Pettigrew *et al.*, 1992), thus providing a downward pressure, which in turn, influences the motors of change (receptivity factors) in the organisation (Butler & Allen, 2008).

Testing of the second hypothesis indicated that there is a strong positive relationship between receptivity factors and competitive advantage. It has one of the highest  $\beta$  values (.71) in the conceptual framework. This further suggests that the receptivity factors are important organisational resource/capabilities that allow the organisation to compete. In dynamic environmental conditions, an organisation needs to focus on higher level capabilities that allow it to "integrate, reconfigure, gain and release resources to match the demands of the market change" (Eisenhardt & Martin, 2000). ORC allows organisations to change faster, and adapt to the pressures set by the environment. It may help an

organisation reduce costs, exploit opportunities, and neutralized threats in the pursuit of attaining competitive advantage (Barney, 1991). It may further help an organisation create greater economic values as compared to competitors (Peteraf & Barney, 2003). Findings from this study are consistent with Butler's (2003) which suggested that receptivity factors permit an organisation to achieve sustainable competitive advantage in hostile environmental conditions.

Following discussions by Ambrosini and Bowman (2009) and Pettigrew *et al.* (1992), this study found there is a significant relationship between the receptivity factors and organisational performance. With  $\beta$  value of .47, the result is consistent with other RBV studies which supported the significance of resource/capability-based variables in predicting performance levels (e.g. Newbert, 2008). These dynamic capabilities are useful in improving organisational performance especially in more hostile environmental conditions (Teece *et al.*, 1997), although the relationship is often complex (Newbert, 2008).

RBV literature has been focusing on competitive advantage to understand some sources of performance differences amongst organisations. Researchers should be aware that competitive advantage is not the only causal mechanism that affects performance (Makadok, 2011). In support of the argument, the correlation between competitive advantage and organisational performance is not very strong ( $\beta = .26$ ). This is consistent with Newbert's (2008) argument that the two constructs are not necessarily equivalent.

Furthermore, consistent with Newbert (2008), this study investigated the influence of organisational size (i.e. numbers of employees) and star rating as part of the control variables. This study found that hotel size has the most impact on the relationship between perceived environmental uncertainty and receptivity factors i.e. hotel size has strong negative correlation ( $\beta = -.73$ ). Bigger hotels are more grounded in their organisational culture. Size of the hotel is negatively related to productivity, and smaller hotels are more productive than bigger hotels (Sun *et al.*, 2007). This study also found that hotel star rating has a strong positive correlation with the receptivity factors. This study found hotels with higher star ratings (4 star and 5 star hotels) are more receptive towards change than lower star hotels.

## **7.4 ORC – COMBINING INSTITUTIONAL THEORY AND THE RESOURCE-BASED THEORY TO EXPLAIN COMPETITIVE ADVANTAGE**

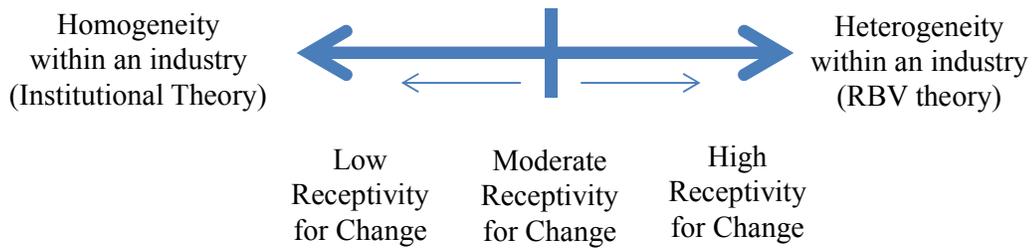
The main objective of this study is to draw on Oliver's (1997) proposition on conjoining institutional theory and RBV theory to explain sustainable competitive advantage. This study posits that ORC theory consists of organisational contexts and capabilities that create high energy around change. These contexts and capabilities are known as receptivity factors which allow organisations to adopt radical change and overcome conformity pressures to gain superior performance (Greenwood & Hinings, 1996).

The findings from this study suggested that three receptivity factors are similar to Butler and Allen's (2008) receptivity factor, which are: 1) ideological vision (**RF1**), 2) leading change (**RF2**), and 3) institutional politics (**RF3**). Analysis revealed a new receptivity factor, change orientation (**RF6**). This factor is a combination of two receptivity factors in Butler and Allen (2008), which are: 1) implementation capacity (**RF4**), and possibility space (**RF5**).

The discussion on each receptivity factor (section 7.3) addresses the theoretical underpinnings of each factor, relating each factor to either institutional theory or RBV theory. The second higher-order analysis revealed that all four factors can be grouped together to represent a second higher-order factor (Organisational Receptivity towards Change). This analysis addresses the issue of combining institutional theory and RBV theory together to explain competitive advantage.

Drawing on Oliver's (1997) proposition, this study views institutional theory and RBV theory as two ends of a continuum (see **Figure 7.1**). At one end, institutional theory explains homogeneity in the industry. It explains how coercive, normative and mimetic pressures can push an organisation to conform and create near-identical organisations within the industry (Scott, 2001). On the opposite end, RBV explains heterogeneity in the industry. It explains how heterogeneity exists due to rent-generating resources and capabilities being optimized by certain organisations in the industry.

**Figure 7 ORC – Combining institutional theory and RBV theory**



Source: Author

This study proposes that the level of environmental dynamism faced by organisations in the market forces them to be flexible and adaptive to various environmental demands. Organisations may move towards any end of the continuum since the level of environmental pressures differs over time. There is always a need for an organisation to constantly balance two separate needs – the need to conform, and the need for profit optimization through differentiation (Oliver, 1997).

All receptivity factors have a strong relationship with perceived external environment, competitive advantage and organisational performance. This shows that higher level of perceived environmental uncertainty leads to the higher levels of receptivity factors which then enhance the organisation's competitive advantage and performance. The findings supports Oliver's (1997) proposition that institutional theory and RBV theory can be combined to explain competitive advantage.

The findings also suggested that receptivity factors address social framework of norms, values and taken for-granted assumptions (Pfeffer & Salancik, 1978) and overcome these to acquire superior performance levels (Barney, 1991). Receptivity factors allow organisations to adapt faster, thus allowing them to move along the homogeneity-heterogeneity continuum based on the current environmental pressure. When there is high level of isomorphism in the industry, the organisations will move to the homogeneous pole (DiMaggio & Powell, 1983). However, if the isomorphic pressures are only limited to regulative pressures, an organisation with higher levels of receptivity will be able to optimize on valuable, rare, inimitable and non-substitutable resources and capabilities to

stay ahead of their competitors (Barney, 1991). This in turn, creates heterogeneity in the industry. The receptivity factors enable the organisation to integrate and embedded new capabilities into existing ones faster than their competitors (Teece *et al.*, 1997).

## **7.5 CONCLUSION**

This chapter has explained, discussed and consolidated the empirical findings demonstrated in the previous chapters. Prior to discussing the role of ORC theory as a theory that incorporates both institutional and RBV theories, the chapter first described the scale development process. It was crucial that the development of the ORC scale was rigorous and thorough since it can affect the ability to test the applicability of the ORC into the RBV framework. Once the new scale established high levels of reliability and validity, then it was possible to test the relationship between the receptivity factors and other organisational factors as recommended by Pettigrew *et al.* (1992). The results provided valuable insight regarding the link between receptivity factors and other constructs in the RBV framework. The findings have confirmed the hypothesized relationships between external environment, receptivity factors, competitive advantage and organisation performance. The findings from this research revealed the ability of ORC theory to integrate institutional theory with RBV theory to explain the existence of both homogeneity and heterogeneity within an industry.

# Chapter 8

## Conclusion

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### 8.1 INTRODUCTION

This final chapter extends the discussions from the previous chapter. This chapter will link the discussion of findings to the contributions and research questions. The research contributions are divided into three parts: 1) theoretical contributions, 2) methodological contributions, and 3) practical contributions. Following this, the chapter will address the limitations of the study and directions for future research in the ORC theory.

### 8.2 CONTRIBUTIONS

The contributions resulted from this research are divided into three categories: theoretical, methodological, and practical contributions.

#### 8.2.1 Theoretical Contribution

The theoretical contributions can be divided into three: 1) utilization of the ORC theory as a theory that combines between institutional and RBV theories, 2) development of a scale for each receptivity factor in the ORC scale, and 3) application of the ORC theory to private sector, specifically the hospitality industry in Malaysia.

##### 8.2.1.1 ORC Theory - Combining Institutional Theory and RBV theory

Increasing levels of environmental dynamism in the 21<sup>st</sup> century have forced organisations to manage rapid change (Voelpel *et al.*, 2004). One main challenge is the determination of the right balance between the need to conform to institutional standards and expectations, and optimization of unique resources and capabilities for profit optimization. To achieve this balance, organisations need to change the internal environment, and adapt to the demands of the external environment. To do so, organisations must possess the right internal mechanics that allow them to be flexible and adaptive (Butler & Allen, 2008).

The ORC theory identifies institutional factors that affect an organisation's ability to adapt to the external environment. These institutional factors can either enable (receptive

factors) or inhibit (non-receptive factors) change (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992). ORC shares some similarities with other theories that analyse the organisation ability to change. They are organisational flexibility (Palanisamy & Sushil, 2003), organisational change capacity (Judge & Douglas, 2009; Judge & Elenkov, 2005; Judge *et al.*, 2009), and organisational adaptive capacity (Staber & Sydow, 2002).

One main difference between these theories and ORC theory is the ORC theory considers a wider institutional context whilst other theories focus on organisation's resources and capabilities. The seminal work on ORC theory by Pettigrew *et al.* (1992) identified eight institutional contexts that affect the rate and pace of change within organisations. The authors not only identified resources and capabilities that are key factors in change implementation, they also discussed how various social networks and cultural issues have an effect on how change is implemented (Pettigrew *et al.*, 1992). Another key difference is the theoretical underpinning between the ORC theory and other theories. The other theories use the RBV theory as the main theoretical underpinning whilst the ORC theory is based on institutional theory.

However, as the ORC theory progressed, it evolved towards the RBV theory. Butler and Allen (2008) identified the receptivity factors as dynamic capabilities that allow organisations to adapt and change to address various environmental demands. The authors (2008) initiated the ORC theory as a conjoined theory between institutional and RBV theories. This development also supported Oliver's (1991) recommendations on combining the two theories in providing a more holistic explanation as to how organisations balance the need for conformity and profit optimization.

Oliver (1997) claimed that the combination of the two theories would provide greater insight as to how organisations can increase the speed in which new capabilities are embedded and integrated with existing knowledge and capabilities. Building on Oliver's (1997) claims, this study posited that these two theories are two ends of a continuum. At one end, institutional theory explains how homogeneity exists within an industry, and at the other end, RBV theory explains how heterogeneity exists within an industry.

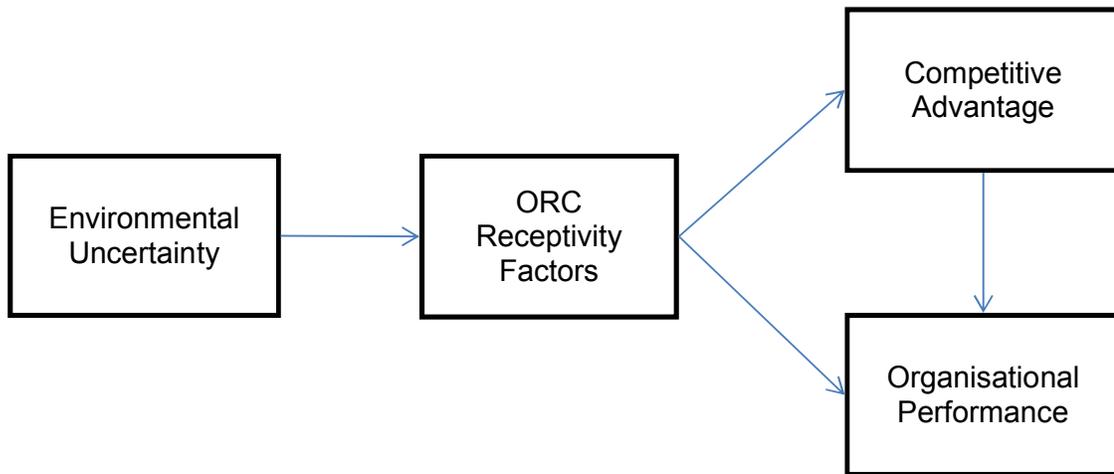
Organisations move along the continuum based on various endogenous and exogenous environmental factors.

However, in a highly dynamic environmental condition, organisations have to be more flexible and adaptive to move along the continuum faster in order to stay ahead. Organisations have to develop the right institutional context, resources and capabilities to allow them to do so, especially when a radical change is needed. The implementation of a radical change often requires the organisation to balance the internal organisational dynamics with the enabling dynamics (Greenwood & Hinings, 1996). The enabling dynamics are the supportive power dependencies and capacity for action. The supporting power dependencies address the political nature in change implementation where various stakeholders use power to mobilize change and therefore discuss the individual abilities to access and mobilize power resources in pursuit or defence of change (Greenwood & Hinings, 1996).

Therefore, the analysis of how organisations adapt and change should focus on not only the organisation's resources and capabilities, but also other institutional contexts that could affect the rate and pace of change. This study posits that when the industry is more heterogeneous, organisations tend to have higher levels of receptivity factors that allow them to react and adapt faster to dynamic environmental conditions. However, when the industry is more homogeneous, organisations tend to have lower level of receptivity factors (non-receptive) which demonstrate an organisation's efforts to enhance their legitimacy through conforming to external environmental pressures. **Figure 7.1** in chapter 7 illustrates how organisations move along the continuum by either enhancing or reducing their receptivity factors based on the two poles of the continuum.

The receptivity factors in the ORC theory relate to institutional contexts as well as resources and capabilities. ORC conjoins both institutional and RBV theories and act as a mediator between both theories. **Figure 8.1** illustrates the conceptual framework.

**Figure 8 Conceptual Framework**



This study hypothesized that the receptivity factors mediate the relationship between external environment, competitive advantage and organisational performance. Results from hypothesis testing revealed that higher levels of perceived environmental dynamism correlate positively with receptivity factors. Receptivity factors are dynamic capabilities that organisations draw upon to enhance their ability to change (Butler & Allen, 2008). This is consistent with previous findings on the role of the external environment in influencing the development of receptivity factors (Butler, 2003; Butler & Allen, 2008; Pettigrew *et al.*, 1992), and with literature in RBV and dynamic capabilities theories. The development of dynamic capabilities is an outcome of a dynamic environment (Helfat *et al.*, 2007). From dynamic capabilities perspective, the synergistic combination of organisational resources and capabilities is crucial in the attainment of sustainable competitive advantage (Kraaijenbrink *et al.*, 2010). Even researchers in institutional theory agree that radical change occurs when the interaction between the external environment and internal environment creates a synergistic relationship. This interaction is a key factor in enhancing change implementation (Greenwood & Hinning, 1996).

This study also addresses the issue on the conceptualization of competitive advantage. Newbert (2007) argued that majority of the literature on RBV used organisational performance, and competitive advantage interchangeably despite the Barney's (1991) assertion that both are conceptually distinct. Competitive advantage is achieved when

organisations are able to create more economic value as compared to their competitors (Peteraf & Barney, 2003). Building on Newbert's (2008) argument, this study adopted the scale developed by Newbert (2008) to measure competitive advantage. The study found a strong positive correlation between receptivity factors and organisation competitive advantage.

In dynamic environmental conditions, this study found receptivity factors have positive correlations with competitive advantage, where a higher level of receptivity factors correlate to a higher level of competitive advantage. This is consistent with Butler and Allen's (2008) suggestion claiming that receptivity factors are higher order capabilities that allow organisations to "integrate, reconfigure, gain and release resources to match the demands of the market (external environment) change" (Eisenhardt & Martin, 2000; p. 1107). This relates closely to institutional theory where capabilities are embedded in organisations. These capabilities are focused on organisation intentional efforts to change (Ambrosini & Bowman, 2009; Greenwood & Hinnings, 1996). This explanation is consistent with the RBV theory which explains how organisations use their dynamic capabilities to attain competitive advantage (Eisenhardt & Martin, 2000). Furthermore, it is coherent with institutional theory which explains the important role of the social embeddedness of these factors to affect change (Greenwood & Hinnings, 1996).

This research also addressed Pettigrew *et al.*'s (1992) recommendations for future research, which is to examine the relationship between receptivity factors and organisational performance. By separating competitive advantage and organisational performance into two separate constructs, it allows this study to analyse the relationship of receptivity factors between performance and competitive advantage separately. Thus, the study addressed both Newbert's (2008) and Pettigrew *et al.*'s (1992) recommendations in a study. Findings indicated that in a dynamic environment, higher levels of receptivity factors correlate to higher levels of performance. In addition, the findings also indicated that higher levels of competitive advantage yield higher levels of performance. This is consistent with RBV and dynamic capabilities theories, where proponents claimed the ability to exploit resource-capabilities combinations to attain competitive advantage over competitors improve organisation performance (Newbert, 2007; Zou *et al.*, 2003).

The conceptual framework of this study revealed that the integration of the receptivity factors into the RBV theory provides an explanation as to how organisations are able to adapt to dynamic environmental conditions. These receptivity factors are dynamic capabilities that allow organisations to change and adapt faster. The application of receptivity factors to the RBV framework creates the possibility of using this theory to combine both institutional with RBV theories to explain how organisations exploit resources to conform even under pressures from the external environment.

#### **8.2.1.2 Development of a Psychometrically Sound ORC Scale**

The second contribution is the development of a scale to measure each of the receptivity factors in the ORC framework. As discussed in Chapter 1, one limitation of ORC theory is that there is no psychometrically sound instrument to measure the receptivity factors (Newton *et al.*, 2003). This is mainly because majority of studies in ORC used qualitative research methods. Though these studies provide a strong theoretical base for the theory, no scale was created. To address the gap, this study employed the scale development process recommended by Hinkin (1995). In addition, this study also referred to scale development methods recommended by Creswell and Clark (2007), and DeVellis (2003). The discussion on scale development process is discussed in section 8.2.2. The current section will only discuss the theoretical development achieved through the development of ORC scale.

The development of psychometrically sound measures for each receptivity factor addresses four sub-issues relating to the development of a scale. The first sub-issue relates to enhancement of scale's generalizability. As discussed in Chapter 1, most studies on ORC used qualitative methods. Newton *et al.* (2003) argued for the use of quantitative methods to extend the generalizability of the theory to a wider population. Doing so allowed this study to draw inferences about the features of a larger population (Gomm *et al.*, 2000).

The second sub-issue addressed the applicability of the receptivity factors in a new research context. The seminal work on ORC theory by Pettigrew *et al.* (1992) highlighted eight receptivity factors that affect the rate and pace of change. As the theory progressed, Butler (2003) consolidated the receptivity factors and came up with only four

receptivity factors. Further study by Butler and Allen (2008) identified another receptivity factor named possibility space. This study retained all receptivity factors from Pettigrew *et al.* (1992), Butler (2003), and Butler and Allen (2008).

The definition and discussion around the five receptivity factors served as a theoretical basis for development of the scale. Furthermore, semi-structured interviews ensured the applicability of the receptivity factors and identification of new receptivity factors unique to the hospitality industry. Through rigorous scale development process, this study identified a new receptivity factor, “change orientation” which combines both “implementation capacity” and “possibility space” factors identified in Butler’s (2003) and Butler and Allen’s (2008) studies. As discussed in Chapter 8, theoretically, there are some overlaps between the definitions of these two receptivity items, where both factors focus on the various types of mechanisms that increase the organisation’s capability to implement faster change.

The change orientation factor is defined as the “organisation’s routines, mechanisms and culture that facilitate organisational change and transformation.” There are seven items in this factor. One item addressed the importance of communication. Three items related to culture, where one specifically focused on supportive culture and the other two on the role of innovative culture in enhancing receptivity for change. The final three items addressed the importance of enhancing change mechanisms that allow organisations to be more adaptive.

***Table 8.1 List of Items and Contexts for Change Orientation***

<b>Item</b>	<b>Context</b>
My organisation is always open about discussing issues relating to change	Communication
My organisation provides continuous support for employees involved in change	Supportive Culture
My organisation culture is very adaptive to change	Innovative Culture
My organisation promotes knowledge transfer between different departments	Innovative Culture
The organisation has the capacity to absorb new practices	Change Mechanism
The strategies to manage change are clearly defined	Change Mechanism
The organisation always divides change programme into achievable targets	Change Mechanism

Change orientation factor is closely related to some of the factors in an organisation’s capacity for change framework (OCC) (Judge & Douglas, 2009; Judge & Elenkov, 2005;

Judge *et al.*, 2009). The OCC is defined as the “combination of managerial and organisational capabilities that allows an enterprise to adapt more quickly and effectively than its competition to changing situations” (Judge & Douglas, 2009). The OCC scale consists of eight factors which are: 1) trustworthy leadership, 2) trusting followers, 3) capable champions, 4) involved mid-management, 5) innovative culture, 6) accountable culture, 7) effective communication, and 8) system thinking. Similarities can be found between change orientation and two OCC factors, which are innovative culture and effective communication. However, the operationalization of the items in innovative culture and effective communication differ from the items in change orientation. Furthermore, the conceptualisation of the other factors in the OCC framework differs from change orientation thus, making change orientation conceptually distinct.

Pettigrew *et al.* (1992; p. 28) refer ORC as “a set of features seen as providing a linked set of conditions which provide high energy around change.” The authors argue that these factors are interlinked and dynamic in nature. The ORC framework represents a group of receptive or non-receptive factors identified as enablers or inhibitors of change (Butler, 2003). Based on these discussions, this study examined the possibility of these factors being first-order latent factor of a second higher-order construct, which is the organisational receptivity for change. Findings are consistent with discussions by other authors (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992). The four receptivity factors represent a second higher-order construct which is the organisational receptivity for change. Therefore, the study can conclude that when all four receptivity factors are high (i.e. receptive context), then the organisation is more receptive to change. In contrast, when all receptivity factors (i.e. non-receptive context) are low, then the organisation is less receptive to change.

The third sub-issue is the identification of relationships between receptivity factors and other organisational factors. The development of a scale allowed this study to test the relationship between the receptivity factors and other organisational factors. Pettigrew *et al.* (1992) recommended that future research try to identify the relationship between receptivity factors and organisational performance. More importantly, in order to achieve the main research objective, this study first developed a scale for receptivity factors before analysing the relationship with other constructs in the RBV framework.

The final sub-issue addresses the application of the new scale to other research contexts. The new scale will also offer future research the chance to test the scale in additional research contexts, thus enhancing the scale's generalizability.

### **8.2.1.3 Application of the ORC Theory to the Private Sector**

The final theoretical contribution is the application of the ORC theory to the private sector. Majority of the literature on ORC focuses on the public sector in United Kingdom (Butler, 2003; Butler & Allen, 2008; Newton *et al.*, 2003; Pettigrew *et al.*, 1992). This study extended the applicability of the ORC framework into another research context, which is the hospitality industry in Malaysia. The first phase of the scale development process was conducted in both United Kingdom and Malaysia, thus, allowing the scale to be used in both countries. The second and third phase of the scale development process was focused on the Malaysian context. This enhanced the generalizability of the scale to the UK and Malaysian contexts.

## **8.2.2 Methodological Contribution**

There are two methodological contributions from this research: 1) a quantitative method to test the theory, and 2) validation of scale development process by Hinkin (1995).

### **8.2.2.1 Quantitative Method**

Previous studies on ORC used qualitative methods with limited number of cases to study the effects of the external environment on the receptivity factors. This created limitations to the concept which makes it harder for the concept to be applied to a wider population (Newton *et al.*, 2003). Furthermore, this limits the ability of future research to test and validate previous research findings (Straub & Carlson, 1989). The development of ORC scale enables this study address those limitations. Quantitative methods allow future research adopts the scale in other research contexts, permitting more generalizability to a wider population. Furthermore, other research can easily replicate the study in another research context, be another industry or country. The quantitative methods would also triangulate research results (Cook and Campbell, 1979).

### **8.2.2.2 Validation of Hinkin's (1995) Scale Development Process**

The second methodological contribution is the validation of Hinkin's (1995) scale development process. Hinkin (1995) recommended that the scale development process should be divided into three phases. He also provided guidelines on what analysis should be done in each phase to ensure the development process is rigorous, and the final scale is robust. However, the article is more than a decade old, therefore this study determines if this process is still relevant, and up-to-date with current scale development practices in top journals.

The recommendations made by Hinkin (1995) were indeed very thorough, where he has highlighted potential issues and problems researchers should address to ensure the development of a scale to be conducted smoothly. However, this study added a few more steps to further refine Hinkin's (1995) scale development process.

In the item generation phase (see Chapter 4), this study recommends literature review to be conducted systematically. David and Han (2004) provided clear guidelines on how to conduct a more systematic and implicit literature review. Furthermore, their methods followed a more quantitative method of evaluating the relevant literature for inclusion in the analysis. This allowed justification for the research as to the theoretical underpinnings of each theoretical construct for the new scale.

The next consideration is the process of expert judges. Hinkin (1995) discussed the use of expert judge but did not clearly provide clear guidelines on sample selection and methodology. Hardesty and Bearden (2004) addressed all these issues in greater detail. This study recommends that researchers refer to this literature to conduct expert judge in the scale development process.

In the scale development phase, this study added more analysis in the scale evaluation step. Hinkin (1995) recommended that the researcher conduct CFA in the scale evaluation step to help determine the model fit. However, he did not discuss the role of CFA in the determination of the scale's convergent and discriminant validity. Current literature on scale development has now used CFA. Convergent validity is achieved when the composite reliability of the scale is more than 0.70 (Hair *et al.*, 2010) and the average

variance extracted (AVE) value is more than 0.50 (see Ashill & Jobber, 2010; Ewing & Napoli, 2005). Discriminant validity is achieved when the AVE value of the pair of construct is greater than the common variance shared (i.e.  $\phi^2$ ) (Fornell & Larcker, 1981). The next method to determine the discriminant validity is through the use of nested models, where the inter-construct correlations must be significantly different from unity for the two construct to achieve discriminant validity (Gerbing and Anderson, 1988).

This study also followed the suggestions made by Farrell (2010) to use EFA after CFA as the study found four constructs did not discriminate against one another. He argues that the removal of items with high cross-loading would enhance the discriminant validity of the two constructs.

Another addition to the Hinkin (1995) scale evaluation process is identification of a second higher-order factor. This method is useful when there are a few sub-dimensions identified in the literature that represent a particular concept. In this evaluation, the study compared two models – one with all factors allowed to correlate freely with one another, and the other was when the factors represented a higher second-order factor (see Ramani and Kumar, 2008). If the model with the second higher-order factor had the better goodness-of-fit statistic, then the concept would be a multidimensional construct that has a higher abstraction level (Cheung, 2008). Nomological validity is to be conducted after all of the above have been determined (see Ramani and Kumar, 2008).

The additional steps enhanced the rigour in the development of the ORC scale. This enhanced the reliability and validity of the scale, thus providing this research with a more accurate measure of each receptivity factor. This measure in turn allowed the study to test the strength of relationships between the receptivity factors and other organisational factors in the RBV framework.

### **8.2.3 Practical contributions – Managerial Implications**

Newton *et al.*, (2003) asserted the ORC framework provides identifiable organisational factors that help managers overcome inhibitors to change within their organisation. Practitioners can use it as a “diagnostic checklist” in their efforts to manage change initiatives (Newton *et al.*, 1992).

The output from the first phase was a list of items that represents the five receptivity factors in Butler's (2003) and Butler and Allen's (2008) ORC framework. This list was used by the Transformation Project as part of their management toolset. The Receptivity for Change toolset is "an innovative diagnostic tool to help organisations identify various factors that either enable or inhibit ability to change" (<http://www.thetransformationproject.co.uk/>). The Transformation Project has used the toolset as a way to identify the organisation's transformational potential.

This toolset has been applied to some of the Transformation Project's partners, namely Warwickshire Police and Translink. The receptivity factors were used by these partners to identify how their organisations can create the right mechanisms that allow them to be more receptive and adaptive to changes in the external environment (<http://www.thetransformationproject.co.uk/wp-content/uploads/The-Transformation-Project-E-zine-October-2010.pdf>).

Furthermore, the Receptivity toolset is used for the Core Leadership Development Programme and the Business Intelligence Development Department in the Warwickshire Police.

The refined ORC scale can be used by practitioners managing change to help them enhance the organisation's receptivity for change, and expedite change implementation in their organisation. The receptivity factors provide evidence for Warwickshire Police and Translink to identify if their organisations are receptive to change. Alternatively, it can identify various receptivity factors that are inhibiting change as well as.

Findings from this study indicated that there are four main areas that managers have to analyse and address in order to increase their overall organisation's capability to change. This is crucial for organisations which face high levels of external environmental uncertainty. To allow higher levels of flexibility and adaptability, managers need to constantly evaluate and manage their internal environment that is more receptive to change.

Delving into each receptivity factor, the ideological vision explains how managers can use organisation's vision to inspire employees to be more receptive to change. Clear

communication of vision allows managers create change policies and strategies that will be part of the organisation's overall culture. It increases the organisation's propensity to be more flexible and adaptive.

The leading change factor helps managers identify if the person leading the change is given the power and authority to implement the changes. This factor demonstrates the importance of change leader in setting the pace and direction of change. This factor also addresses the importance of knowledge, skills and ability of the person or group leading the change in enhancing the overall organisation's receptivity to change.

The institutional politics factor informs managers of the importance of creating the right network, and relationships within the organisations. It discusses the importance of using these relationships as means to expedite change.

Finally, change orientation factor looks at the various change capabilities and the role of culture to help create high energy around change. This factor discusses the importance of setting the right environment and support systems for employees to handle changes within the organisation. This factor addresses the key mechanisms that create the right mind-set of capacity building and organisational flexibility and adaptability.

### **8.3 LIMITATIONS AND FUTURE RESEARCH**

This study has identified several limitations. It is important to declare and discuss these limitations to stimulate more research which investigate gaps identified.

First, organisational change is a complex, context-specific phenomenon (Judge & Douglas, 2009). The purpose of this study was to provide the ability to analyse an industry-wide phenomenon on how organisations can use their internal organisational contexts and capabilities to stay ahead of competitors. To do so, this study generated a scale to measure each of the receptivity factors and included these factors in a questionnaire. The use of a questionnaire limits the ability to uncover the complexity and other contexts that surround change for organisations. Additionally, the cross-sectional design limits drawing causality of the relationships between the factors in the framework.

Future research can conduct a mixed method design where the study can use the questionnaire first and address the findings through qualitative work. Future studies can also conduct longitudinal studies on the industry to allow understanding of how organisations progress over time. This will allow the measurement of the relationship between factors over an extended period of time and can be more revealing than a cross-sectional study.

The development of the ORC scale is limited to only two countries, namely United Kingdom and Malaysia. However, United Kingdom was only used for the first phase of the study. The second and third phase was not conducted in United Kingdom due to logistics and timeframe issues. Furthermore, the final phase was conducted only in the hospitality industry, thus the generalizability of the conceptual framework is only applicable to the hospitality industry. This limits the generalizability of the scale. Future research can increase generalizability by applying the scale to other research contexts and other countries. This provides greater understanding of differences in levels of receptivity factors across different industries and countries.

This study did not analyse the relationship between the four receptivity factors. Previous literature on ORC has discussed the causal paths between the receptivity factors, where Pettigrew *et al.*, (1992) claimed that the relationship between the receptivity factors is dynamic and sometimes bi-directional. Future research can conduct a model fit analysis on the various possible combinations of relationships between the variables to see which model fit best in their research context.

The final phase was conducted only in the private sector, which limits the generalizability of findings to other research contexts. The previous studies on the ORC theory analysed how central government affected change implementation in various governmental agencies (Pettigrew *et al.*, 1992). Such suggested that the public sector has more pressure from other stakeholders as opposed those in the private sector (Newton *et al.*, 2003; Pettigrew *et al.*, 1992). It will be valuable if future research focus on the public sector and identify the strength of the relationship between the ORC and the other constructs in the RBV framework in that research context.

Another limitation is the collection of self-reported data that may be subjected to common method bias. Though this study applied a statistical analysis to suggest that method bias was not present in the data, scholars who wish to replicate this study may need to consider distributing the questionnaire to more than one person in the organisation. This can be divided according to the factors in the framework. The questionnaire can be distributed to various organisational members or departments. This allows the researcher to identify differences between different groups or departments in their perception of each factor.

Future studies can also collect data from different level of respondents within an organisation, where the CEO or top management can answer part of the question while the finance manager/director can answer questions related to performance. Furthermore, there are multidimensional conceptualisations of organisational performance from various stakeholders in the industry. Future studies should take into considerations other measurements of performance, and include it in their study. Another option is to use of secondary performance data to cross-validate the subjective performance measures.

Finally, the development of the receptivity factors included some discussions around different factors in the OCC scale. However, this study did not statistically test the difference between OCC scale and ORC scale. To further enhance the ORC scale, this study recommends that future research test the discriminant validity between the two scales.

#### **8.4 CONCLUDING NOTE**

Overall, despite the limitations, this study provides better insight to the concept of ORC, and ways it can contribute in explaining how organisational heterogeneity can lead to the attainment of sustainable competitive advantage. The ORC theory explains how the enhancement of the receptivity factors help organisations adapt faster in dynamic environments, thus allowing them to attain superior performance. It allows the evaluation of the integration of two theories, institutional and RBV theories. ORC as dynamic capabilities help organisations balance the demands of societal/environmental conformity, and the organisation's strategic agenda for resource optimization. Oliver (1997) argues

that to attain sustainable competitive advantage, the organisation must be quick at identifying and achieving the balance of the two demands.

Furthermore, the development of the scale helps expand possibilities for the theory to grow further. The scale can test the relationship between the receptivity factors with other organisational contexts. It can also examine the relationship between organisational level receptivity and individual (employee) level receptivity to change. Furthermore, it can validate with other studies, thus allows triangulation of results across various countries or industries. The ORC scale can also be used on a larger population through the use of a questionnaire, which allows the research to capture a bigger picture of how a particular industry adapts to environmental dynamism to attain superior competitive advantage and performance. Finally, the ORC scale serves as a diagnostic checklist for practitioners to help identify organisation capability to change faster, following recommendation by Newton *et al.* (2003).

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# Appendix A

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## INTRODUCTION

I am undertaking research for a PhD degree at Aston University, Birmingham. My area of interest relates to organisational receptivity for change and its effects on performance. I assure you that all the information collected during this interview will be handled with the extreme care. I also assure you that your name and company name will be kept confidential throughout the discussions in the research findings.

## PURPOSE OF THE STUDY

The purpose of this interview is to understand the relationship between the external environmental demands and the organisation's receptivity to change. This interview also would like to discover which organisational factors affects the ability to change and how this ability would then enhance organisational performance.

The outcome of this study is to come up with a checklist of organisational factors that are important towards facilitating change, thus enhancing the organisation's ability to sustain or enhance their performance.

## SEMI-STRUCTURED INTERVIEW QUESTIONS

### **EXTERNAL ENVIRONMENT**

1. Please describe a recent environmental condition that has led to the hotel to change certain aspects of their operations.
2. How does the hotel respond to the environmental change / factors?
3. What type of change was made in response to the change in the environment?

### **RECEPTIVITY FACTOR 1: IDEOLOGICAL VISION**

4. How do you use your organisational vision to generate a need for change and commitment to change?
5. How does your hotel come up with change strategies that fit the organisational vision?

### **RECEPTIVITY FACTOR 2: LEADING CHANGE**

6. How is leadership exercised?

7. How does the leader implement the change strategies?
8. How does the leader influence other members to support change?
9. Is the leadership exercise with continuity or stability?

### **RECEPTIVITY FACTOR 3: INSTITUTIONAL POLITICS**

10. How does the organisational build support for change strategies?
11. What are the strategies the leader use to gain support?

### **RECEPTIVITY FACTOR 4: IMPLEMENTATION CAPACITY**

12. How do you implement change?
13. What are the main organisational infrastructure, procedures and systems that are used to facilitate change implementation?
14. Are the changes conducted incrementally or radically?
15. How does a leader communicate the need for change?

### **RECEPTIVITY FACTOR 5: POSSIBILITY SPACE**

16. Which existing internal factors that restricts change?
17. Please identify an industrial norm or practices that cannot be changed?
18. Does the organisation promote learning?
19. How does the organisation create extra capacity to absorb new practices?
20. How does the organisation anticipate/plan for the future issues/trends?

### **RECEPTIVITY FACTOR 6: CO-OPERATIVE INTER-ORGANISATIONAL NETWORKS**

21. To what extent is the change strategy dependent on other related organisation?

### **RECEPTIVITY FACTOR 7: THE FIT BETWEEN CHANGE AGENDA AND LOCALE**

22. How does your change strategy take into account the locality of your hotel?

### **OTHER RECEPTIVITY FACTORS**

23. Are there any other factors that you believe to be an important receptivity factors that are unique to the hospitality industry?

### **ORGANISATIONAL PERFORMANCE**

24. Which performance variables would be the most important indicator for a successful change strategy implementation?

### **CONCLUSION**

Thank you very much for your cooperation. If you wish to be updated on the research, please feel free to contact me.

# Appendix B

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## Survey of Organisational Practices in Uncertain Times

Dear Respondent,

I am undertaking a research for a PhD degree at Aston Business School, Aston University, Birmingham, UK. My research investigates the different organisational factors that help organisations deliver high performance. I would be grateful if you could spend a few minutes to complete this survey. Please be assured that your response will be treated confidentially and with anonymity as the data obtained will be used for the purpose of this research only.

Organisations in this century are operating in a very dynamic and complex business environment. Good change management strategies are needed to cope with these environmental conditions. However, the management of change within an organisation requires an understanding of factors that affect the rate and pace of change implementation.

The outcome of this study is to come up with a checklist of organisational factors that are important towards facilitating change. Thus, the goal is to investigate factors enhancing the organisations ability to sustain or enhance their performance.

If you have any question or concern about completing this survey, or more generally about my study, you may contact me or my research advisor through our contact details below.

Thanking you in advance for your time and input.

Kind regards,

Miss Azni Z. Taha  
[tahaaz@aston.ac.uk](mailto:tahaaz@aston.ac.uk)

Dr. Michael J.R. Butler  
[m.j.r.butler@aston.ac.uk](mailto:m.j.r.butler@aston.ac.uk)

## INSTRUCTIONS

Please answer all the questions based on your current or past working experience.

**ALL questions require a response so please do not skip any one of them.**

Please **TICK**  and/or **WRITE** in the appropriate response spaces.

## SECTION 1

The statements below describe the level of uncertainty in your organisation's external environment. Please indicate the degree of agreement or disagreement (1 "strongly disagree" to 5 "strongly agree") with the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The industry/sector my organisation operates in faces high volatility in sales on an annual basis.	1	2	3	4	5
The industry/sector my organisation operates in faces high volatility in earnings on an annual basis.	1	2	3	4	5
The rate of change in technology for this industry/sector is high.	1	2	3	4	5
The rate of change in government regulations for this industry/sector is high.	1	2	3	4	5
The rate of product/service obsolescence is high.	1	2	3	4	5
The degree of pressure to research and develop new products/services, applications, and practices is high in this industry/sector.	1	2	3	4	5
The degree of difficulty in forecasting industry trends/developments/changes is high in this industry/sector.	1	2	3	4	5
The degree of technological complexity is high in this industry/sector.	1	2	3	4	5
The degree of general business environment complexity is high in this industry/sector.	1	2	3	4	5
The degree that your actions directly affect your competitors is high.	1	2	3	4	5
The number of firms in this industry/sector is higher than other industries/sectors	1	2	3	4	5
Competitors will introduce products/services with superior performance compared to ours.	1	2	3	4	5
Customer preferences for product/service features will change significantly.	1	2	3	4	5
Competitors will increase their product variety.	1	2	3	4	5

## SECTION 2

Items in this section relates to your organisational culture. It is meant to identify what type of culture is more dominant in your organisation. For items below, circle “T” for a true statement, “F” for a false statement or “?” if you are undecided about your organisation.

We negotiate with each other for resources.	T	F	?
People go out of their way for the good of the team, department and/or organisation.	T	F	?
Decisions are often based on precedents.	T	F	?
There is the continuous search for ways to improve operations.	T	F	?
Rules and procedures limit discretionary behaviour.	T	F	?
Mistakes are treated as learning opportunities.	T	F	?
You get what you earn - no more, no less.	T	F	?
When you are unsure about what to do, you can get a lot of help from others.	T	F	?
There is strong resistance to changing the old ways of doing things.	T	F	?
We trust each other to do what's right.	T	F	?
It's hard to find key people when you need them most.	T	F	?
We are encouraged to consider tomorrow's possibilities.	T	F	?
Bypassing channels is not permitted.	T	F	?
New ideas are agreed with enthusiasm.	T	F	?
One or two mistakes can harm your career.	T	F	?
Individual initiative is encouraged.	T	F	?
Decisions often require several levels of authorization before action can be taken.	T	F	?
We strive to be the best in whatever we do.	T	F	?
Agreements are specified in advance on what each of us must do to complete the work.	T	F	?
Stories are shared of the challenges that we have overcome.	T	F	?
People are hesitant to say what they really think.	T	F	?
The unwritten rule is to admit mistakes, learn from them and move on.	T	F	?
We have to compete with each other to acquire resources.	T	F	?
Your advancements or achievements depend on your initiative and ability.	T	F	?
Deviating from standard operating procedures without authorization can get you into trouble.	T	F	?
We share the common goal of working toward the team, department and/or organisational success.	T	F	?
People often try to avoid responsibility for their actions.	T	F	?
We encourage a strong feeling of belonging.	T	F	?

### SECTION 3

**This section of the survey focuses on the changes that your organisation has gone through. Please answer the following questions based on your experience of a particular change program that your organisation has initiated and implemented in the last five years. Please type/write ( X ) to one of the following statements.**

**Which of the type of changes listed below happened at your organisation in the last 5 years?**

- Introduction of a major new technology (i.e. information systems, systems, software etc.).
- Introduction of major new equipment (i.e. machinery).
- Major reorganisation of workplace structure.
- Major changes on how non-managerial employees do their work (i.e. task, work processes).

**Was the change programme ...**

- Planned by the top management
- Emerged through manager's response to changing internal and external environmental requirements.

**Please indicate the rate of change of this particular change programme?**

- The changes are implemented in rapid shifts and one-time event.
- The changes are done continuously as the organisation monitors and responds to the external and internal environmental changes.
- Changes are implemented intermittently, in which the organisation has periods of no change followed by periods of accelerated change.

**How many departments were involved in this change programme?**

- One department/division.
- Two or more departments/divisions.
- All departments/divisions in the organisation.

Please answer the following section based on your experience in the change programme that was mentioned in this section (Section 3).

### SECTION 4

**This section investigates the mechanism that could either facilitate or inhibit change within an organisation. The identification of these mechanisms would assist managers in addressing issues that slows down the implementation of a particular change program. This section is divided into 5 sub-sections, each representing a particular organisational mechanism. Please answer all the questions in this section.**

## SECTION 4.1

**The first mechanism of change is ideological vision. Ideological vision explains how important it is for organisations to have a well thought through and coherent vision for leader to use to gain support for the change program. Please indicate the degree of agreement or disagreement (1 “strongly disagree” to 5 “strongly agree”) with the following statements.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My organisation's <sup>1</sup> vision <sup>2</sup> is clear to all employees.	1	2	3	4	5
The vision sets a future direction for my organisation.	1	2	3	4	5
The vision generates a need for change for my organisation.	1	2	3	4	5
The top management has always considered the organisation's vision when developing new strategies.	1	2	3	4	5
The change programme is in line with my organisation vision.	1	2	3	4	5
Everyone who has an interest in the organisation shares the same beliefs about change.	1	2	3	4	5
The change strategies arise from the interests of all these individuals/groups.	1	2	3	4	5
The change strategies fit the existing organisational culture.	1	2	3	4	5
My organisation's vision has made adapting to change part of the organisational culture.	1	2	3	4	5
I find that my organisation's vision generates employee commitment to change	1	2	3	4	5

<sup>1</sup> Organisation includes all organisations, private, public and third sector (i.e. Non-governmental organisation).

<sup>2</sup> Vision could also mean your organisation's strategic agenda, mission statement and so forth.

## SECTION 4.2

**Leading change explains how the location of the decision making and the actions of the decision makers has an influence on how fast the change program is being implemented. Please indicate the degree of agreement or disagreement (1 “strongly disagree” to 5 “strongly agree”) with the following statements.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My organisation would always appoint an individual as the change programme leader.	1	2	3	4	5
The change leader <sup>3</sup> often would create a team to help manage the change programme.	1	2	3	4	5
The team usually comprises of at least one senior manager.	1	2	3	4	5
My organisation would give the change leader the power and authority to implement these changes.	1	2	3	4	5

The change leader's behaviours influence the change implementation success.	1	2	3	4	5
The change leader's political skills influence the change implementation success.	1	2	3	4	5
The change leader's knowledge on change management enhances the change implementation success.	1	2	3	4	5
The change leader's communication skills are crucial to the change implementation success.	1	2	3	4	5
The change leader shows strong commitment toward the change programme.	1	2	3	4	5
My organisation would appoint successor(s) who would continue to manage the change programmes.	1	2	3	4	5
The change leader would be able to sustain the change strategies even when there is a reshuffle in the top management.	1	2	3	4	5
The length of tenure of the top management may affect the implementation of change.	1	2	3	4	5
Most often, the top management is appointed internally.	1	2	3	4	5
The top management, if appointed internally, is more likely to continue the strategies/vision of the previous top management.	1	2	3	4	5

<sup>3</sup> Change leaders are the key individual who is leading the change programme.

### SECTION 4.3

**Institutional politics looks at the roles of individuals and groups that play a role in influencing the change program's outcomes. Please indicate the degree of agreement or disagreement (1 "strongly disagree" to 5 "strongly agree") with the following statements.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The top management always uses its power to influence everyone in my organisation to implement change.	1	2	3	4	5
Employees have the power to influence the outcomes of the change programme.	1	2	3	4	5
There are key individuals/groups that have the power to influence the change implementation.	1	2	3	4	5
Trade Unions <sup>4</sup> have influence on the decisions related to change.	1	2	3	4	5
Local communities have influence on decisions related to change.	1	2	3	4	5
The change leader makes an effort to identify influential individuals/groups within my	1	2	3	4	5

organisation.					
The change leader would use his/her relationship with these individuals/groups to implement change.	1	2	3	4	5
The change leader would use his/her relationships with external contacts (government, media, or other influential people) to implement change.	1	2	3	4	5
The change leader would form alliances with these individuals to gain support.	1	2	3	4	5
The change leader formalizes participation procedures with all these individuals/groups.	1	2	3	4	5
The change leader would use rules and policies to gain the compliance of all employees.	1	2	3	4	5

<sup>4</sup> Trade Union could also be any other organisation that represents the employee's welfare.

## SECTION 4.4

**This section investigates the different mechanisms that the change leader utilizes in order to gain support for the change program. The identification of existing change mechanisms and strategies allows managers to implement the change program more efficiently. Please indicate the degree of agreement or disagreement (1 “strongly disagree” to 5 “strongly agree”) with the following statements.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The change leader would use my organisation's vision to implement changes.	1	2	3	4	5
My organisation is always open about discussing issues relating to change.	1	2	3	4	5
Employees are well informed of the change programme's progress.	1	2	3	4	5
The change leader would always seek agreement from employees involved with changes.	1	2	3	4	5
My organisation would provide continuous support for employees involved in change.	1	2	3	4	5
My organisation rewards employee efforts to change.	1	2	3	4	5
My organisation seldom uses force to get employees to comply with changes.	1	2	3	4	5
The change leader always uses different communication platforms (dialogue, forums, seminars, etc.) to inform all the employees about change.	1	2	3	4	5
The strategies to manage change are clearly defined.	1	2	3	4	5
My organisation always has informal events (e.g. annual dinners, gatherings) to allow informal communication between top management and employees.	1	2	3	4	5

The top management and change leader have been sent for training relating to change management.	1	2	3	4	5
The top management has always adopted change management tools to facilitate change implementation.	1	2	3	4	5
The organisation always divides change programmes into achievable targets.	1	2	3	4	5
The change leader is given less workload so that they could concentrate on the change programme.	1	2	3	4	5
The organisation always rewards employees' efforts to adapt to the changes.	1	2	3	4	5
Those who are affected by the change programme always give feedback to the change leader.	1	2	3	4	5
Support from all individuals and groups within the organisation would facilitate change implementation.	1	2	3	4	5

#### SECTION 4.5

**The statements in this section capture how the organisation adapts their existing behaviours or create new behaviours to adapt to the demanding external conditions. Please indicate the degree of agreement or disagreement (1 “strongly disagree” to 5 “strongly agree”) with the following statements.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The owner/headquarters does not enforce conformity on the group's best practices.	1	2	3	4	5
Individual organisations should be allowed to decide on the future strategies of their organisation.	1	2	3	4	5
The industry has no established best practices for managing the business.	1	2	3	4	5
Most organisations in this industry do not depend on the same strategy to improve their performance.	1	2	3	4	5
My organisation continuously reviews past success and failures.	1	2	3	4	5
The success of future strategies is dependent on my organisation's capability to learn from the past.	1	2	3	4	5
My organisation is able to adapt old practices to fit with new innovative practices.	1	2	3	4	5
Interaction between new practices and existing practice would enhance my organisation's capabilities.	1	2	3	4	5
My organisation is well equipped to cope with environmental changes (i.e. recession) over time.	1	2	3	4	5
My organisation has the capacity to absorb new practices.	1	2	3	4	5
My organisation culture is very adaptive to change.	1	2	3	4	5
My organisation's systems are flexible and able to	1	2	3	4	5

accommodate new changes.					
My organisation promotes knowledge transfer between different departments.	1	2	3	4	5
My organisation encourages employees to learn.	1	2	3	4	5
Most of the employees are multi-skilled.	1	2	3	4	5
The organisation has the capacity to absorb new practices.	1	2	3	4	5
The organisation promotes innovativeness amongst its employees.	1	2	3	4	5
The organisational culture promotes creativity.	1	2	3	4	5

## SECTION 5

Please indicate the degree of agreement or disagreement (1 “Much Worse” to 4 “Much Better”) with the following statements. The statements below ascertain your organisation’s performance. How do you compare your organisation’s performance over the past 3 years to that of other organisations that do the same kind of work in terms of ...

	Much Worse	Worse	Better	Much Better
Quality of products, services or programs?	1	2	3	4
Development of new products, services, or programs?	1	2	3	4
Ability to attract essential employees?	1	2	3	4
Ability to retain essential employees?	1	2	3	4
Satisfaction of customers or clients?	1	2	3	4
Relations between management and other employees?	1	2	3	4
Relations among employees in general?	1	2	3	4

Compared to other organisations that do the same kind of work, how would you compare your organisation’s performance over the last 3 years in terms of ...

	Much Worse	Worse	Better	Much Better
Marketing?	1	2	3	4
Growth of sales?	1	2	3	4
Profitability?	1	2	3	4
Market share?	1	2	3	4

## SECTION 6

The statements below describe the level of innovativeness in your organisation. Please indicate the degree of agreement or disagreement (1 “strongly disagree” to 5 “strongly agree”) with the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Our company frequently tries out new ideas.	1	2	3	4	5
Our company seeks out new ways to do things	1	2	3	4	5
Our company is creative in its methods of operations.	1	2	3	4	5
Our new product introduction has increased over the last 5 years.	1	2	3	4	5
Our company is often the first to market with new products and services	1	2	3	4	5
Innovation in our company is perceived as too risky and is resisted.	1	2	3	4	5

## SECTION 7: ABOUT YOURSELF

The differences in background often affect the way people see and experience their work situations. We are asking the following questions so that we can study the effects of such background factors. Please cross ( X ) your response.

**Gender:**

- Male
- Female

**Age:**

- Under 30
- 30 - 39
- 40 - 49
- 50 -59
- 60 and Over

**Highest Educational Attainment**

- A level or below
- Certificate/Diploma
- Undergraduate Degree (BA, BSc, etc.)
- Postgraduate Degree (MA, MSc, MBA, PhD, etc.)

**Where did you attain this education?**

- United Kingdom
- Malaysia

**How long have you been in the workforce since completing your first full-time education?**

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**Position in this organisation:**

- General Manager (or equivalent)
- Head of Department
- Supervisor
- Employee

**Personal gross income per annum**

- Under £30,000
- £30,000 - £39,999
- £40,000 - £49,999
- £50,000 - £59,999
- £60,000 and Over

**Length of employment in this organisation:**

- Less than 1 year
- 1 - 3 years
- 3 - 7 years
- 7 - 10 years
- More than 10 years

**SECTION 8: ABOUT YOUR ORGANISATION**

**The following organisational factors could influence the effects of change factors on performance and organisational innovativeness. Please cross ( X ) or write in your response as appropriate...**

**Age of the organisation :**

- Less than 10 years
- 11 - 20 years
- 21 - 30 years
- 31 - 40 years
- 41 - 50 years
- More than 50 years.

**Number of employees :**

- Below 50
- 51- 250
- 251 - 500
- More than 501

**Public/Private sector :**

- Public Service Sector
- Private Service Sector
- Non-Governmental Organisations

**Please indicate which sector/industry are you from:**

\_\_\_\_\_

\_\_\_\_\_

**Country:**

- United Kingdom
- Malaysia

**END OF SURVEY**

**We would like to thank you for your patience in completing our survey. Please go over the questionnaire to ensure that all the questions have been answered.**

# Appendix C



Aston Business School



**UNIVERSITI  
MALAYA**  
KUALA LUMPUR

## Hotel Dynamism Hospitality Industry in Malaysia

Contact Person:

**Azni Taha**

[tahaaz@aston.ac.uk](mailto:tahaaz@aston.ac.uk)

0189882975

**This section of the survey focuses on the changes that your hotel has gone through. For the purpose of this questionnaire, it is necessary to understand in which context you are responding, i.e. from past experience of change within your hotel or from current experiences. Please type/write ( X ) to one of the following statements.**

**In which context are you completing this questionnaire?**

- Past Experience
- Current Experience

**Which of the type of changes listed below are happening / happened in your hotel?**

	No Change	Minor Change	Major Change
Introduction of a new technology (i.e. information systems, systems, etc.).	0	1	2
Introduction of new equipment (i.e. machinery).	0	1	2
Changes in hotel's management structure (i.e. re-shuffle of hierarchy)	0	1	2
Changes in how non-managerial employees do their work (i.e. task, work processes).	0	1	2

Please answer the following sections based on your experience of the change programme mentioned in this section (Section 1).

## SECTION 2:

**The statements below describe the level of uncertainty in your hotel's external environment. Please indicate the degree of agreement or disagreement (1 "strongly disagree" to 5 "strongly agree") with the following statements.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The business environment is threatening the survival of my hotel.	1	2	3	4	5
Tough price competition threatening the survival of my hotel.	1	2	3	4	5
Competitors' product quality and novelty is high.	1	2	3	4	5

**SECTION 3:**

**This section investigates mechanisms that could either facilitate or inhibit change within a hotel. The identification of these mechanisms would assist managers in addressing issues that slow down the implementation of a particular change program. Please answer all the questions in this section.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My hotel's vision is clear to all employees.	1	2	3	4	5
The top management has always considered the hotel's vision when developing new strategies.	1	2	3	4	5
The change programme is in line with my hotel's vision.	1	2	3	4	5
My hotel's change policies are in line with the hotel's vision.	1	2	3	4	5
The change leader often would create a team to help manage the change programme.	1	2	3	4	5
The Team usually comprises at least one senior manager	1	2	3	4	5
My organisation would give the change leader the power and authority to implement these changes.	1	2	3	4	5
The change leader's knowledge on change management enhances the change implementation success.	1	2	3	4	5
The top management would use their relationship with these individuals/groups to implement change.	1	2	3	4	5
The top management would use their relationships with external contacts (government, media, or other influential people) to implement change.	1	2	3	4	5
The top management would form alliances with these individuals to gain support.	1	2	3	4	5
The hotel formalizes participation procedures with all these individuals/groups.	1	2	3	4	5
My organisation is always open about discussing issues relating to change.	1	2	3	4	5
My hotel would provide continuous support for employees involved in change.	1	2	3	4	5
The strategies to manage change are clearly defined	1	2	3	4	5
The hotel always divides change programmes into achievable targets.	1	2	3	4	5
My hotel's culture is very adaptive to	1	2	3	4	5

change.					
My organisation promotes knowledge transfer between different departments.	1	2	3	4	5
My hotel's has the capacity to absorb new practices.	1	2	3	4	5

#### SECTION 4:

**Below are some questions that will help us learn how you use your Capabilities and Resources for the purposes of reducing costs to a competitive level, exploiting targeted market opportunities, and/or defending against known competitive threats. When responding to these questions please select your answers based on the following definitions:**

***Resources: the tangible or intangible assets a hotel possesses or has access to.***

***Capabilities: the intangible processes (such as skills, abilities, know-how, expertise, designs, management, etc.) with which a hotel exploits Resources in the execution of its day-to-day operations.***

**My hotel combines financial resources (e.g. cash, equity) and capabilities (i.e. management of financial resources or financial expertise) to ...**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Reduce its costs to a highly competitive level.	1	2	3	4	5
Enables it to fully exploit all targeted market opportunities.	1	2	3	4	5
Enables it to defend against all known competitive threats.	1	2	3	4	5

**My hotel combines human resources (e.g. level of training, experience, intelligence of individual employees) and capabilities (e.g. succession planning, training management, recruitment management) to...**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Reduce its costs to a highly competitive level.	1	2	3	4	5
Enables it to fully exploit all targeted market opportunities.	1	2	3	4	5
Enables it to defend against all known competitive threats.	1	2	3	4	5

**My hotel combines intellectual resources (e.g. patents, copyrights, and trademarks) and capabilities (e.g. management and expertise of intellectual properties or trademarks) to ...**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Reduce its costs to a highly competitive level.	1	2	3	4	5
Enables it to fully exploit all targeted market opportunities.	1	2	3	4	5
Enables it to defend against all known competitive threats.	1	2	3	4	5

**My hotel combines organisational resources (e.g. relationships with partners, suppliers, buyers and creditors or corporate culture) and capabilities (e.g. service culture management, standard operating procedures) to ...**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Reduce its costs to a highly competitive level.	1	2	3	4	5
Enables it to fully exploit all targeted market opportunities.	1	2	3	4	5
Enables it to defend against all known competitive threats.	1	2	3	4	5

**My hotel combines physical resources (e.g. hotel rooms and facilities) and capabilities (e.g. facilities maintenance and management) to ...**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Reduce its costs to a highly competitive level.	1	2	3	4	5
Enables it to fully exploit all targeted market opportunities.	1	2	3	4	5
Enables it to defend against all known competitive threats.	1	2	3	4	5

#### SECTION 5:

**Evaluate the performance of your hotel by responding to the following statements, compared to other hotels, how would you compare your hotel's performance over the last 3 years in terms of ...**

	Much Worse	Worse	Better	Much Better
Marketing?	1	2	3	4
Growth of sales?	1	2	3	4
Profitability?	1	2	3	4
Market share?	1	2	3	4

## SECTION 6: ABOUT YOURSELF

**Differences in background often affect the way people see and experience their work situation. We are asking the following questions so that we can study the effects of such background factors. Please cross ( X ) your response.**

**Gender:**

- Male
- Female

**Age:**

- Under 30
- 30 - 39
- 40 - 49
- 50 -59
- 60 and Over

**What is your highest educational attainment?**

- SPM or below
- Certificate/Diploma
- Undergraduate Degree (BA, BSc, etc.)
- Professional Certification (ACCA, CFA etc.)
- Postgraduate Degree (MA, MSc, MBA, PhD, etc.).

**Where did you attain this education?**

- United Kingdom
- Malaysia
- Others.....

**Length of employment in this hotel:**

- Less than 1 year
- 1 - 3 years
- 3 - 7 years
- 7 - 10 years
- More than 10 years

**What is your employment status?**

- Full Time Employee
- Supervisor / Junior Management
- Middle Management
- Senior Management
- Board / Executive

## SECTION 8: ABOUT YOUR HOTEL

**The following hotel factors could influence the effects of change factors on performance and hotel innovativeness. Please cross ( X ) or write in your response as appropriate...**

**How old is your hotel?**

- Less than 10 years
- 11 - 20 years
- 21 - 30 years
- 31 - 40 years
- 41 - 50 years
- More than 50 years.

**Hotel Type:**

- Independent Hotel
- Chain Hotels

**Number of Hotel Rooms**

- 0 - 50 rooms
- 51 - 100 rooms
- 101 - 150 rooms
- 151 - 200 rooms
- 201 – 250 rooms
- 251 – 300 rooms
- 301 – 350 rooms
- 351 – 400 rooms
- > 401 rooms

**How many employees are there in your hotel?**

- Below 50
- 51- 250
- 251 - 500
- More than 501

**What is your hotel's star rating?**

- 1 star
- 2 star
- 3 star
- 4 star
- 5 star

**Average Room Rates**

- RM 0 - 50
- RM 51 - 100
- RM 101 - 150
- RM 151 - 200
- RM 201 – 250
- RM 251 – 300
- RM 301 – 350
- RM 351 – 400
- RM 401 – 500
- > RM 501