

**THE IMPACT OF A FIRM'S STRATEGIC ORIENTATIONS ON ITS
DEGREE OF INTERNATIONALIZATION AND ALLIANCE
FORMATION INTENTIONS**

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**FACULTY OF BUSINESS AND ECONOMICS
UNIVERSITI MALAYA
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ABSTRACT

The initial aim for this thesis is to extend strategic alliance literature by examining the role of strategic orientation as a three-factor model (i.e. entrepreneurial, market and innovation orientation) on the degree of internationalization (Mediator Variable) and the formation of strategic alliances (Dependent Variable) under different regimes of environmental dynamism in the context of Malaysian and Iranian small and medium size manufacturing firms.

The setting of this study is SMEs (small and medium enterprise) in Iran and Malaysia in order to draw some theoretical and practical implications for both small and medium enterprise academics and practitioners, as data was collected from manufacturing small and medium enterprise CEOs in both countries. The SEM analysis software employed in this is smart PLS and Amos and the research instrument was a structured survey questionnaire using close ended questions. The questionnaire was emailed to a list of randomly selected CEOs of manufacturing SMEs in Malaysia and Iran. A total of 378 completed questionnaires were received and the response rate is calculated to be 18.9 %. In addition, as this thesis examines causal relationships among the underlying constructs based on empirical evidence, the quantitative approach is considered most suitable.

There were 14 hypotheses tested across the two countries examined in the first set of tests. Then the application of mediation factors to both models separately and the 14 hypotheses tested again to yield a country-by-country result. Based on the findings of this study the synergistic effect of Market Orientation, Entrepreneurial Orientation and Innovation Orientation are better predictors of intention to form strategic alliances compared to their impact as individual factors in all models.

This research makes advances to the network theory in two ways. First, it introduces three different types of organizational orientation as antecedents of a firm's tendency to form strategic alliance. It is important because research on networks and alliances has not been examined antecedents of firm's tendency to develop networks sufficiently. Secondly, incorporating the contingency hypothesis within the network theory this research found that the variations in forming alliances among firms are contingent upon the level of perceived dynamism. This is significant in that, prior research has not determined the extent to which dynamism as a macro-environmental factor influences firms' tendency to develop networks of allies.

This study points to several implications based on this logic for executives of small firms and aims to assist them in making choices that enable them to navigate their performance in a better direction given their resource liabilities. These implications spring from firm orientation known as "strategic orientation" that is relatively influence all other strategic choices and develop firm strategic approaches toward market, competitor and consumers. It can therefore lead to different identifiable behaviours and posture in firms that occur over time in different contexts. Hence, this study was able to offer a set of general insights into the managerial behaviours and decision-making of executives which could be useful for leading the performance of their firm.

ABSTRAK

Tujuan terdahulu tesis ini adalah untuk mengembangkan literatur perikatan strategik dengan mengkaji peranan orientasi strategik sebagai model tiga-faktor (iaitu orientasi keusahawanan, pasaran dan inovasi) ke atas tahap pengantarabangsaan (Pembolehubah Pengantara) dan pembentukan perikatan strategik (Pembolehubah Bersandar) di bawah rejim-rejim dinamik persekitaran yang berbeda-beda dalam konteks firma-firma pembuatan kecil dan sederhana di Malaysia dan Iran.

Kajian ini berlatarkan PKS (perusahaan kecil dan sederhana) di Iran dan Malaysia untuk mendapatkan beberapa implikasi teori dan praktikal bagi kegunaan pengamal dan ahli akademik dalam bidang perusahaan kecil dan sederhana oleh sebab data telah dikumpul dari ketua-ketua pegawai eksekutif (CEOs) bagi firma-firma pembuatan bersaiz kecil dan sederhana dari kedua-dua negara. Perisian analisa SEM yang digunakan ialah smart PLS dan Amos dan instrumen kajian ialah soalkaji selidik berstruktur yang menggunakan soalan berjawapan muktamad (close ended questions). Soalkaji selidik telah diemelkan ke senarai CEO firma pembuatan PKS yang dipilih secara rambang di Malaysia dan Iran. Sejumlah 378 soalkaji selidik yang siap dijawab telah diterima dan kadar tindakbalas (response rate) adalah 18.9%. Di samping itu, kerana tesis ini juga mengkaji hubungan sebab dan akibat di kalangan konstruk-konstruk tersirat berdasarkan bukti-bukti empirikal, pendekatan kuantitatif dianggap sebagai yang paling bersesuaian.

Sebanyak 14 hipotesis telah diuji di kedua-dua negara yang dikaji dalam kumpulan ujian yang pertama. Kemudiannya, faktor-faktor perantaraan telah diaplikasikan ke atas kedua-dua model dengan cara berasingan dan 14 hipotesis tersebut telah diuji sekali lagi bagi mendapatkan keputusan berasingan bagi kedua-dua negara. Berdasarkan penemuan-penemuan dari kajian ini, kesan sinergi (atau gabungan) Orientasi Pasaran, Orientasi Keusahawanan dan Orientasi Inovasi adalah peramal tujuan (predictors of

intention) yang lebih baik bagi pembentukan perikatan (atau pertalian) strategik berbanding dengan impak mereka sebagai faktor individu dan berasingan di dalam kesemua model.

Penyelidikan ini membawa kemajuan kepada teori rangkaian dalam dua cara. Pertama, ia memperkenalkan tiga jenis orientasi organisasi sebagai latarbelakang yang mencenderongkan sesuatu firma untuk membentuk pertalian strategik. Ia mustahak kerana penyelidikan ke atas rangkaian dan perikatan setakat ini telah tidak mengkaji secara lebih mendalam kecenderongan sesuatu firma untuk membangunkan sebuah perikatan atau pertalian. Keduannya, dengan menggabungkan hipotesis kontinjensi ke dalam teori rangkaian, kajian ini mendapat penemuan bahawa variasi dalam membentuk perikatan di kalangan firma-firma adalah bergantung kepada tahap dinamik yang dilihat. Ini adalah penting oleh kerana penyelidikan sebelum ini telah tidak menetapkan tahap di mana dinamik sebagai faktor makro persekitaran mempengaruhi kecenderongan firma-firma untuk membentuk satu rangkaian sekutu-sekutu.

Kajian ini memberi petunjuk kepada beberapa implikasi berdasarkan logik tersebut untuk eksekutif-eksekutif firma-firma kecil bagi membantu mereka membuat pilihan untuk membolehkan mereka merancang prestasi mereka ke arah yang lebih baik berdasarkan batasan sumber yang ada. Implikasi-implikasi ini muncul dari orientasi firma yang dikenali sebagai “orientasi strategik” yang mempengaruhi pilihan-pilihan strategik yang lain dan membangun dan membentuk pendekatan strategik firma tersebut terhadap pasaran, saingan dan pelanggan. Oleh itu ia boleh membawa kepada tingkahlaku dan postur firma yang berbeda-beda tetapi boleh dikenalpasti yang berlaku dari masa ke masa dalam konteks yang berbeda-beda. Hatta, kajian ini berupaya memberi beberapa wawasan (insights) terhadap tingkahlaku pengurusan dan pembentukan keputusan (decision-making) eksekutif yang berguna dalam menerajui prestasi firma-firma mereka.

TABLE OF CONTENTS

ORIGINAL LITERARY WORK DECLARATION	ii
ACKNOWLEDGMENTS	iii
ABSTRACT.....	iv
ABSTRAK.....	vi
TABLE OF CONTENTS.....	viii
LIST OF FIGURES.....	xii
LIST OF TABLES.....	xv
LIST OF PUBLICATIONS.....	xix
LIST OF APPENDICES	xxii
CHAPTER 1 INTRODUCTION	23
1.1 Background of Study	23
1.1.1 Strategic alliance and Management theories	26
1.1.2 Alliances and SMEs.....	31
1.1.3 Strategic alliances formation antecedents	35
1.2 Problem Statement.....	38
1.3 Research Question	44
1.4 Research Objective	44
1.4 scope of the study.....	45
1.5 Contribution of the Study	46
1.8 Organization of the Thesis	52
1.9 Chapter summary	54
CHAPTER 2 LITERATURE REVIEW	56
2.0. Introduction	56
2.1. Some characteristics of strategic alliances	65
2.2 Strategic Orientations (Market, Entrepreneurial, Innovation Orientations)	68
2.3 Degree of Internationalization of SMEs	81
2.4 Alliances formation intentions.....	84
2.4.1 Merits of Strategic Alliances	87
2.4.2 SMEs and Strategic Alliances	92
2.5 Environmental Dynamism.....	95
2.6. Control Variables.....	99
2.6.1. Age	99
2.6.2. Size	99

2.7 Chapter summary	100
CHAPTER 3 METHODOLOGY	102
3.1. Introduction	102
3.2. Conceptual Model and Hypothesis	103
3.2.1. Conceptual Model and Hypothesis for Cross National Model.....	104
3.2.2 A Conceptual Model and Hypothesis of an independent moderator role of environmental dynamism for both Iran and Malaysia.	105
3.3. Research Design	107
3.3.1. Research Methodology Objective.....	107
3.3.2. Research Approach (Quantitative Vs. Qualitative Methods).....	108
3.4. Sampling Design	109
3.4.1 Target Population.....	109
3.4.2. Sampling Frame	111
3.4.3. Sampling Method.....	112
3.4.4. Sample Size	115
3.5. Instrument Development.....	116
3.6. Questionnaire	122
3.6.1 Questionnaire Translation and Back-to-back Translation	124
3.6.2. Reliability.....	125
3.6.3. Validity	126
3.6.3.1. Face or Content Validity.....	126
3.6.3.2. Construct Validity.....	127
3.6.4. Pilot Study	128
3.6.5. Data Analysis.....	130
3.6.5.1. SEM	130
3.6.5.2. Partial Least Squares (PLS)	135
3.7. Chapter summary	141
CHAPTER 4 DATA ANALYSIS AND RESULTS	142
4.1 Introduction	142
4.2 Data Editing and Coding.....	142
4.3 Data Screening	143
4.3.1 Treatment of Missing Data	143
4.3.2 Assessment of the Normality.....	144

4.4 Response Rate.....	148
4.5 Sample Characteristics.....	148
4.6 Analysis and Results of Structural Equation Modeling	155
4.7 Selection of Model Fit Criteria	155
4.8 Stage One: Measurement Model.....	157
4.8.1 Assessing the Unidimensionality	158
4.8.1.1 Market Orientation	161
4.8.1.2 Entrepreneur Orientation	162
4.8.1.3 Innovation Orientation	163
4.8.2 Degree of Internationalization.....	164
4.8.3 Intention to Form Alliance	165
4.9 Overall measurement model	167
4.10 Reliability and validity.....	171
4.11 Multicollinearity.....	174
4.12 Common Method Bias	175
4.13 Mean differences	176
4.14 Measurement Invariance.....	179
4.14.1 MO	181
4.14.2 EO	183
4.14.3 INO	184
4.14.4 DOI	185
4.14.5 Intention to form alliance (I2FA).....	186
4.15 Overall measurement model	187
4.16 SEM	190
4.16.1 Mediation analysis	196
4.17 IRAN	198
4.17.1 SEM	201
4.17.2 Mediating test.....	202
4.18 MALAYSIA.....	206
4.18.1 Mediating test.....	214
4.19 Chapter summary	217
CHAPTER 5 DISCUSSION AND CONCLUSION.....	218
5.0 Introduction to Chapter Five.....	218

5.1 Summery of thesis and Synopsis of Quantitative Findings	219
5.1.1 Research Question	219
5.1.2 Research Objective	220
5.2. Model 1 (Cross national model between Iran and Malaysia).....	221
5.2.1. Findings of H1, H2, H3 (Direct Relation of Strategic Orientation dimensions with Intention to form alliance)	224
5.2.2. Findings of H4 (Direct Relation of Degree of Internationalization with Intention to form alliance)	226
5.2.3. Findings of H5, H6, H7 (Direct Relation of Strategic Orientation dimensions with Degree of Internationalization).....	227
5.3. Model 2 (moderator role of environmental dynamism on Iran and Malaysia model)	230
5.3.1. Findings of H11 (Market orientation, dynamism and formation of alliances)	237
5.3.2. Findings of H 12 (Entrepreneurial orientation, dynamism and formation of international alliances)	238
5.3.3. Findings of H 13 (Innovation orientation, dynamism and formation of strategic alliances)	239
5.4. Theoretical implications.....	240
5.5. Managerial implications.....	242
5.6. Limitations and directions for future research	246
5.7. Conclusion.....	247
References	249
Appendix	279
Questionnaire	279
Appendix B.2 (Questionnaire Farsi)	283
Appendix C: Q-Q and Box Plots of all items	287

LIST OF FIGURES

Figure	Title	Page
Figure 1.1	Research design of a schematic model	53
Figure 2.1	A schematic view of Strategic orientation as a three-dimensional construct	61
Figure 2.2	Decision-Making and Market Orientation in the Internationalization Process of SMEs	83
Figure 2.3	Simple logic of Strategic Alliance	86
Figure 2.4	Strategic alliance from international business perspective	91
Figure 2.5	Motivation-based approach for the formation of alliances with is managerial, technological, financial, and strategic motives.	91
Figure 2.6	Diversity of strategic alliance formation	93
Figure 3.1	Conceptual Model and Hypothesis for Cross National Model	104
Figure 3.2	A Conceptual Model and Hypothesis of an independent moderator role of environmental dynamism for both Iran and Malaysia.	105
Figure 3.3	choosing the sampling method model	114
Figure 3.4	Process of data analysis based on two-stage approach	131
Figure 3.5	PLS example	137
Figure 3.6	PLS structural equations method in which rely on the	140

criteria's to make decisions. Source: Hsu et al.

Figure 4.1	Respondents' Age(Iran)	150
Figure 4.2	Respondents' Gender(Iran)	150
Figure 4.3	Respondents' Level of Education(Iran)	150
Figure 4.4	Respondents' Managerial Experience(Iran)	151
Figure 4.5	Respondents' Age(Malaysia)	151
Figure 4.6	Respondents' Gender(Malaysia)	151
Figure 4.7	Respondents' Level of Education(Malaysia)	151
Figure 4.8	Respondents' Managerial Experience (Malaysia)	150
Figure 4.9	IRAN sample firm sizes	153
Figure 4.10	IRAN sample age	153
Figure 4.11	MALAYSIA sample firm size	154
Figure 4.12	MALAYSIA sample age	154
Figure 4.13	Market Orientation Measurement Model	161
Figure 4.14	Entrepreneur Orientation Measurement Model	162
Figure 4.15	Innovation Orientation Measurement Model	163
Figure 4.16	Degree of Internationalization Measurement Model	164
Figure 4.17	Intention to Form Alliance Measurement Model	165
Figure 4.18	Overall Measurement Model	168
Figure 4.19	Iran and Malaysia Market Orientation mean differences	177
Figure 4.20	Iran and Malaysia Entrepreneur Orientation mean differences	177
Figure 4.21	Iran and Malaysia innovation Orientation mean differences	177

	Iran and Malaysia Degree of Internationalization mean differences	178
Figure 4.22		
	Iran and Malaysia Intention to Form Alliance mean differences	178
Figure 4.23		
Figure 4.24	Hypothesized Structural Equation Model	191
Figure 4.25	Iran Measurement Model	198
Figure 4.26	Hypothesized Structural Model for Iran	201
Figure 4.27	Overall Measurement Model (Malaysia)	207
Figure 4.28	Hypothesized Structural Model (Malaysia)	213
Figure 5.1	Conceptual Model and Hypothesis for Cross National Model	223
Figure 5.2	Global innovation index report for Iran and Malaysia 2012	227

LIST OF TABLES

Table	Title	Page
Table 2.1	A selective list of research on SO-strategic alliance	62
Table 2.2	Alliance formation motives in SMEs	66
Table 3.1	Target population	110
Table 3.2	Number of Manufacturing SMEs in Malaysia and Iran	111
Table 3.3	Minimum sample size required Table	115
Table 3.4	Measurement model	118
Table 3.5	Iran pilot results	128
Table 3.6	Malaysia pilot results	128
Table 3.7	cross-nation pilot result for items to total correlation	129
Table 4.1	Descriptive statistics of items	146
Table 4.2	Demographic of Respondents(Iran)	148
Table 4.3	Demographic of Respondents(Malaysia)	149
Table 4.4	Sample's Characteristics(Iran)	152
Table 4.5	Sample Characteristics(Malaysia)	152
Table 4.6	Market Orientation Path Coefficients	161
Table 4.7	Entrepreneur Orientation Standardized Regression Weights	163
Table 4.8	Innovation Orientation Standardized Regression Weights	165
Table 4.9	Degree of Internationalization Standardized Regression Weights	165
Table 4.10	Intention to Form Alliance Standardized Regression Weights	166

Table 4.11	Overall Measurement Model Standardized Regression Weights	169
Table 4.12	Reliability and Convergent Validity Analysis	172
Table 4.13	Discriminant Validity Analysis	174
Table 4.14	Multicollinearity (Variable Inflation Factors)	175
Table 4.15	Harman's Single Factor Test	175
Table 4.16	Countries Group Differences	176
Table 4.17	Variables Test of Mean Difference in two Countries	178
Table 4.18	Market Orientation Loadings (Multi-group Analysis)	182
Table 4.19	Market Orientation Configural Invariance (Model fit)	183
Table 4.20	Market Orientation Group Invariant Test	183
Table 4.21	Entrepreneur Orientation Loadings (Multi-group Analysis)	183
Table 4.22	Entrepreneur Orientation Configural Invariance (Model fit)	184
Table 4.23	Entrepreneur Orientation Group Invariant Test	184
Table 4.24	Innovation Orientation Loadings (Multi-group Analysis)	185
Table 4.25	Degree of Internationalization Loadings (Multi-group Analysis)	185

Table 4.26	Intention to Form Alliance Loadings (Multi-group Analysis)	186
Table 4.27	Intention to Form Alliance Configural Invariance (Model fit)	186
Table 4.28	Intention to Form Alliance Group Invariant Test	187
Table 4.29	Overall Measurement Model Loadings (Multi-group Analysis)	187
Table 4.30	Overall Measurement Model Configural Invariance (Model fit)	188
Table 4.31	Overall Measurement Model Group Invariant Test	189
Table 4.32	Regression Weights Pairwise Comparison (Measurement Model)	189
Table 4.33	Configural Invariance Test of Hypothesized Model	192
Table 4.34	Variant and Invariant group chi-square fit	193
Table 4.35	Iran and Malaysia Model Comparison	193
Table 4.36	Iran and Malaysia Regression Weights Comparison	194
Table 4.37	Hypothesized Model Regression Weights (Iran and Malaysia)	195
Table 4.38	Hypotheses Test Result	195
Table 4.39	Mediation Analysis (Iran)	196
Table 4.40	Mediation Analysis (Malaysia)	197
Table 4.41	Mediation Hypotheses Test Results	197
Table 4.42	R-Square Change Test	198
Table 4.43	Measurement Model Regression Weights for High and Low ED (Iran)	199
Table 4.44	Configural Invariance Test for High and Low ED (Iran)	200
Table 4.45	Group Comparison for High and Low ED (Iran)	200
Table 4.46	Regression Weights Comparison for High and Low ED	200

Table 4.47	Model Fit (Iran)	202
Table 4.48	Hypotheses Test Results (Environmental Dynamism)	202
Table 4.49	Mediation Test Results for Iran	203
Table 4.50	Iran High and Low ED Chi-Square Test	203
Table 4.51	High and Low ED Model Comparison (Iran)	203
Table 4.52	High and Low ED Path Differences (Iran)	204
Table 4.53	High and Low ED Critical Ration for Differences (Iran)	204
Table 4.54	Moderation Hypotheses Test Results (Iran)	205
Table 4.55	R-Square Change Test for Iran	206
Table 4.56	Measurement Model Regression Weights (Malaysia)	208
Table 4.57	Reliability of Measurement Model (Malaysia)	209
Table 4.58	Discriminant Validity (Malaysia)	210
Table 4.59	Cross Loading of Malaysia Model	210
Table 4.60	Hypothesized Model Regression Weights (Malaysia)	214
Table 4.61	Mediation Test Results (Malaysia)	214
Table 4.62	R-Square Change Test (Malaysia)	215
Table 4.63	Hypothesized Test Results (Malaysia)	216
Table 4.64	Hypothesis Mediate Test Result (Malaysia)	216
Table 5.1	Model one findings (cross national model, compare Iran and Malaysia)	223
Table 5.2	Model 2 findings (investigate the influence of environmental dynamism as moderator on Iran and Malaysia models separately)	232

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LIST OF APPENDICES

APPENDIIX	Title	Page
A	Cover Letter	279
B	Questionnaire	279
C	Appendix B.2(Questionnaire Farsi)	283
D	Appendix C: Q-Q and Box Plots of all item	287

CHAPTER 1

INTRODUCTION

1.1 Background of Study

The competition in the new millennium has evolved into a challenging environment, regardless of the size of the firms. One way to effectively address this concern when it comes to management is the formation of strategic alliance or a partnership (Arend, 2006). This has inevitably put strategic alliances in the spotlight recently (Ebers, M., 1997; Gulati, R., 1998; Hoffmann, W. H., & Schlosser, R., 2001). A strategic alliance is defined as a system that is “consisting of two or more organizations that contractually pool resources to achieve a long term strategic purpose that is not possible for a single organization” (Judge, W. Q., & Ryman, J. A., 2001).

Strategic alliances are technically considered a major form of a cooperating strategy, where businesses integrate their resources as well as capabilities in an effort to generate and create new competitive advantages for their firms (Sirmon, D. G., Hitt, M. A., & Ireland, R. D., 2007). This makes sharing and achievement of a shared objective as the most important component of a strategic alliance. The competitive advantages, which are produced by a cooperating strategy, are referred to as collaborative or relational advantages. On the other hand, cooperative strategies are strategies where enterprises collaborate in order to achieve a shared objective by coming up with a value that exceeds the cost incurred by the respective organization.

Firms or companies that seek competitive advantages, market power and other related capabilities use this strategy (Teng, B. S., 2007). A strategic alliance is defined and shaped at all levels, from the operational to the corporate levels. However, the purpose of the formation of an alliance is always to meet a shared and common objective. The strategic logics of alliances are listed below (Akio, 2005):

1. Alliances are employed to acquire the managerial resources of some other organizations to accumulate and store rare managerial resources.
2. Alliances are widely used to receive benefits of the managerial resources of their own firm as well as the ones from alliance partners.
3. Alliances are used to collaboratively develop new managerial resources and capabilities.

Therefore, it can be argued that the sharing and enrichment of managerial resources is the main goal of the formation of any strategic alliance, as this allows the firms to better compete by developing and enhancing their limited resources and core competencies (Hitt et al. 2007).

These arguments are derived mainly from the resource based view of a firm (RBV) (Grant, R, 1991), where scholars believe that competitiveness is derived from resources currently possessed by an organization, or resources developed over time via different sets of strategies. In accordance with the rationale stated above, all organizations, regardless of their respective size, are capable of forming a strategic partnership and develop allies for resource pooling in order to enhance their respective capabilities. This factor shapes new competitive edges; however, it is not as simple as it seems. Furthermore, similar to other strategies, the formation of a strategic partnership has its own advantages. A number of scholars have extensively explored the advantage and disadvantages of strategic partnerships. One of them

is Bartett, C.A. (2009), who, in his book, emphasizes that Technology Exchange, global competition, industrial convergence, economic scale, and risk reduction are the main advantages of strategic alliances as a market-entry strategy.

The advantages of forming strategic alliances are proven in many fields, such as marketing and strategic management through to global business (Thompson et al., 2007; Shenkar et al., 2004; Kotler et al., 2006). When trying to formulate a plan involving strategic alliances, a firm must consider not only the advantages, but the disadvantages as well. Some of these disadvantages are listed below (Thompson et al., 2007; Shenkar and Luo, 2004; Chung et al., 2006):

1. Difficulties in creating a mutual trust
2. Difficulties in creating and dealing with a new structure
3. Difficulties in creating and dealing with new organizational culture
4. Conflicts in managerial decision making and control
5. Conflicts in measuring and pooling shared resources
6. Risk of financial failures
7. Risk of organizational conspiracy

Although a strategic alliance has the potential to enhance an organization's effectiveness and competitiveness, a systematic approach is required in all directions in order to meet all the objectives that results in the formation of the alliance.

1.1.1 Strategic alliance and Management theories

Furthermore, several theories that involve firm behavior can be employed for discussing the formation of strategic alliance, for example transaction cost theory, resource dependency theory, organizational theory, and strategic behavior theory (Hynes et al., 1998).

In terms of Transaction cost theory, Williamson, (1979) proposes that organizations form strategic alliance because they have an intention toward reducing both risks and costs in their organizations through shared risks and costs with their partner organizations. This represents a coping mechanism for a firm that is new to a certain market, as it will cushion the entry of these firms into the 'real' market conditions.

The main emphasizes of Resource dependency theory is to highlight that although all firms have their own resources and advantages, and though there are some firms which are self-reliant (Glaister, 1996), most of today's firms are externally dependent. The lack of strategic resources seems to be the main motivating force of alliances, as it eliminates risk and uncertainties.

These two theories can certainly be summarized into a more broad based theory, which is structure and governance theory, this theory states that firms possibly adapt or perhaps are affected by their particular environments (Varadarajan et al., 1995).

Organizational learning specifically distinguishes between tacit and specific knowledge. Specific knowledge are generally transferred via licensing, whilst tacit knowledge is knowledge embedded in any individual, and can be exclusively transferred by training a particular individual (Kogut , 1988), in addition, it cannot be purchased or even licensed (Levitas et al., 1997). This theory is important in knowledge acquisition as a method of maintaining or acquiring competencies, and adapting training to their particular environment.

Alternatively, firms can acquire knowledge in an effort to facilitate actions to be more competitive at many different points in the value chain, thus it can help firms to modify their particular business structures.

Strategic behavior theory discusses the firm's behaviors from an administrative (managerial) perspective. Organizations are compelled to form collaborations when they feel it would probably improve their capabilities to achieve particular objectives, with concentrating on enhancing profits (Kogut, 1988). The relationship between both marketing as well as strategic behavior theories proposes that firms form strategic alliances as a means of proactivity, thereby altering their environment.

Furthermore, in this study the focus is on alliance formation intentions, this study also aims to contribute to the network theory as well. From this theory the relations among involved firms are described and detailed (Wilkinson and Young, 2002), and knowledge is suggested as a social product created in a network that orders and translates various interacting materials to the firms within the network (Hatch, 2006). Furthermore, the network is based on the sharing relationships among the firms. These relationships link the actors or firms that form the fundamental components (elements) of the network. The actors are interdependent instead of independent, and the relational ties among the actors are channels for transferring resources as well as structures, which comprise of enduring patterns of the interactions among the actors. Consequently, all the actors in a network are simultaneously trying to achieve their own objectives while considering the effects and responses of the other actors (Wilkinson and Young, 2002).

The participants in a network contain a subset of their actions within a network; although, self-reliance is noted in other unrelated matters (Koza and Lewin, 1999). Based on the concept of alliance networks, the patterns of strategic operational used in organizational

networks are identified in order to gain benefits. This translates to the position of particular firms in a network being based on business relationships, along with the ability to manage the range of an exchanging relationship in an integrated manner. In this study, the network theory is applied to explain the relationship among the factors (i.e. attitude toward alliance, partner selection, and partnership experience), and alliance formation. When a firm is in a relationship with another firm (i.e. partners) in the same network, the alliance formation is provided by the factors that focus on collaboration or relationships. As a result, the firm will certainly achieve several resources and also capabilities with different partners that link the firm's primary core activities (Tangpinyoputtikhun et al., 2009). Therefore, firms band together to succeed in acquiring market shares and profits that they would not have obtained if they had acted alone. Accordingly, the firm's ability to connect to each other within a network via cooperation (i.e. alliance) will lead to an effective alliance.

From the basis of the network theory, the formation of alliances is mentioned as a social network that focuses on a firms' relationship with other firms (Hatch, 2006). Basically, an alliance is established and seen as mutually beneficial if two or more organizations see it as a means to an end that will benefit involved party(ies) (Mitsubishi and Greve, 2009). The degree of the relationship among partners increases by the degree of integration that is ranging from low to high, licensing, collaborative alliances, as well as partial acquisitions and joint ventures (Pekar and Margulis, 2003). Thus, the form of alliance consists of exchange transactions among organizations, which is an exchange of relationships and alliances (Perks and Easton, 2000). Similar to the study by Perk and Easton (2000), there are four forms of strategic alliance, which are resource exchange, resource creation, competitor strategic alliance, and joint venture. This study considers all forms of alliances. According to Solesvik and Encheva (2010), an inter-firm cooperation is a source of competitive advantage, and, in

order to guarantee a firm's survival and profit generation, new resources need to be acquired and new competencies need to be developed.

The attitude towards an alliance is defined as an idea of a firm to cooperating (i.e. alliance) with one another. It is described as the forward-thinking intention to organize collaborative activities with partners in order to achieve the desired competitive advantage in the future. From the comprehensive literature review, it can be contended that the mindset toward alliances will give the firms a foundation for a concerted effort to choose a cooperative strategic alliance partner, particularly while significant uncertainty surrounds a proposed "new relationship" (Robson and Katsikeas, 2004). Based on the network theory, it is expected that the intention toward alliance is associated with alliance formation. Consistent with literature, cooperation creates a distinctive value-adding capability, including a knowledge resource as well as market access to the network (Koza and Lewin, 1999).

Moreover, the network can influence the nature of competition in the industry as well as its degree of profitability, while adding an important new dimension that explores the differences in profitability (Gulati et. al., 2000). In order to further clarify this point, the framework of network alliance is similar to one society, in which all firms desire to achieve similar goals, and they focus on the structure of relationships among organizations or firms. The network relationship provides competitive advantages due to the nature of network partners' access and knowledge transfer (Walter et al., 2007). Moreover, a firm's creating overall performance by resources probably would not just include elements just like expertise, and capabilities, but it really would certainly also include the network resources or the social capital of the firms (Gulati et. al., 2000; Tuntrabundit et al., 2011). In addition, firms with relationships with other firms have the ability to occupy outstanding returns, simply because access to more advantageous information and opportunities tend to be more ephemeral. This is obvious especially when it involves the occurrence of resource and

capabilities in international alliance as the specific resource. Moreover, Brouthers and Hennart (2007) state that firms who are engaged in strategic alliance are able to develop new inimitable resources (e.g. knowledge) that can be utilized in new markets as a source to develop new resource-based advantages. Furthermore, resources can be utilized by contracts (Barney, 1999), making alliance as one way to complement the firm's resources and capabilities by improving its strategy to enhance its capabilities when faced with external opportunities (Grant, 1991). Therefore, when firms develop significant relationships as a means to gain access to activities or resources that they lack, it will most likely be that the firms will actually achieve their alliance formation (Gebrekidan et al., 2002; Tuntrabundit et al., 2011).

The existing literature on strategic management can be split up into several stages and steps in the formation of strategic alliance, which can be presented as antecedents, motives and also objectives. According to the research by Hynes et al., (2007), the behavior and mindset of each of the partners, that form alliance can have an effect on the outcome and performance of alliance. Additionally there will be the different scenarios if the network is established whether within dyadic network or perhaps within larger networks.

A study dealing with strategic orientations is just one of the alternatives in which these types of attitudes and beliefs are quantified and assessed. A network can be a group of people with shared attitudes and beliefs which it can help them to stabilize business relationships. However, being able to manage business relationships is extremely important (Ritter et al, 2004), both to those with sole strategic alliance outcome, or at the network level. This forms the main core competence, and can lead to competitive advantages (Dodgson, 1983).

Strategic orientation is shown to affect the interaction between firms and their environment (Kaiser and Shaw, 2004). According to Hamilton et al (1990), these types of firms usually

are externally oriented which makes them early movers, additionally they tend to form strategic alliances with other firms in an effort to achieve marketing or manufacturing resources. The link between strategic orientation and engagement in external structures, such as alliances and networks, is very important. It is because research on strategic alliances shows that compatibility along with shared attitudes and perceptions are paramount in determining the success of an alliance. The three dimensions of strategic orientation included in this study are market orientation, innovation orientation and entrepreneurial orientation.

One element that strongly influences the outcome of alliances is cultural similarity between the alliances (Brouthers et al . , 1995 ; Cravens et al . , 1993 ; Slowinski et al . , 1996 ; Doz , 1996). Relevant research shows the great importance of shared attitudes and behaviors, because these elements help the firms to work effectively with each other (Yuan and Wang, 1995). Although the generally held attitudes and beliefs of a firm might change over the years, they are mostly present at the time of the formation of the alliance. Leisen et al., (2002) presents empirical evidence of the relationship between a firm's degree of market orientation and the effectiveness of strategic alliance. Moreover, Kauser and Shaw (2004) demonstrate a positive relationship between trust and overall performance of an alliance. All these studies propose that the choice of partner according to the similarity of shared attitudes and beliefs is extremely important in determining the outcome of the alliance.

1.1.2 Alliances and SMEs

Globalization, liberalization, market openness, privatization, nationalization, economic crisis and uncertainties have all together resulted in a more complex and sophisticated business environment internationally as well as domestically (Poorangi et al., 2011). Knowledge-economy has forced companies, regardless of their size and field of operation, to seek for new way of creating and sustaining competitive advantages. Relying on some limited

resources and capabilities cannot bring this ability and developing new resources takes time and requires a well-managed and planned allocation of other resources and effort. Thus is not as easy as it is said. From another point of view, fierce competitive circumstances have given rise to collaboration and coordination not only in regional and domestic markets and in industries but also internationally. Multinational corporations (MNCs), transnational corporations (TNCs) as well as big domestic players beside small and medium size enterprises (SMEs) are playing business game in globalized markets.

Finding an ally or a bundle of allies through a network of collaborations and partnerships help firms to smoothen the flow of this game and gain more scores. Strategic alliance is a strategic action to find one or more allies and establish a partnership control and manage it, share objectives and maximizing benefits from it. Because of these facts it is justified to say that, Strategic alliance has been a hot issue in business and management literature and authors have addressed numerous aspects of this strategic action over last decades. From another perspective, Malaysia and Iran are two developing countries. Both countries industries are expected to grow fast. In this sense, Malaysian and Iranian enterprises need a fertile ground for blooming and thriving whereas global hyper competition hinders their development. In this context, Malaysian and Iranian SMEs are more prone to become vulnerable because they are technically weaker and being bombarded with competitive actions from abroad as well as domestic big enterprises, MNCs and TNCs. Government incentives and policies in addition to academia studies are to be properly analyzed, integrated and applied to rescue these enterprises. Strategic alliance can be seen as a valuable option to assist these enterprises in coping with competition and helping them to reinforce not only their survival but also their competitive position.

In management literature, strategic alliance in SMEs has been discussed by some researchers (Chung et al. 2006; Noori and Lee, 2000; Das and He, 2006, Ghisi et al. 2008) but sadly, it

has been found that, there is a shortage in literature to address the regularity framework of strategic alliance for Iranian and Malaysian SMEs. This thesis investigated important dimensions of this strategic action in the context of Iranian and Malaysian SMEs to enhance decision making and policy taking in order to improve competitiveness of Malaysian SMEs with in return results in industrial and economic prosperity of the country. Robert Macgregor (2007) acknowledged that SMEs are not simply reduction versions of large organizations, but SMEs have their own unique and determined of characteristics, which can either lead to improved competitiveness or restrain or prevent growth depending on how they are managed. There exists very little unanimity with regards to the definition of SMEs in Iran. Several ministries, organizations as well as institutions correlated to SMEs in one way or perhaps another possesses their very own criteria to describe, categorize or even clearly define SMEs (Feizpour, M. A., 2008). As defined by the Ministry of Industry and Mines along with the Ministry of Agricultural, SMEs are business as well as service enterprises with less than 50 workers, while the Ministry of Cooperatives alternately uses the criteria of either the Ministry of Industry or Mines, or of the Statistical Office of Iran in defining SMEs. The latter, in accordance with the Iranian Statistical Yearbook (2000), categorizes firms into 4 categories, companies with 1-9 workers, 10 to 49 workers, 50 to 99 workers, and more than 100 workers. Despite the fact that this categorization has some resemblance to the definitions used by the EU, the Statistical Office of Iran simply concerns companies with less than 10 workers to be SMEs; all others are considered to be “Large Manufacturing Establishments”. In addition the Central Bank of Iran only defines companies with less than 10 workers as SMEs. SMEs comprise 90 percent of all enterprises in Iran (Bayati, 2007). The majority of manufacturing businesses in Iran are actually in the SME segment, which close to 75% are small enterprises. Approximately more than 63% of entire manpower in the manufacturing sector is employed by SMEs, along with the share of SMEs in value added amounts to something like 30%.

In Malaysia also SMEs have important role for developing and growth economy and market. Arbaugh et al., (2008) illustrated SMEs in Malaysia as the firms which create and make wealth and capital during new economic action by gather unique and exclusive packages of resources to discover and develop market opportunities. Based on SMIDEC (2006) definition SME in Malaysia categorize in small and medium scale, the small-scale firm is a company with less than 50 full-time employee with the income and profit not more than RM10 million, in other hands medium –scale enterpriser and investment has 51to 150 employee with annul income or turnover it is between RM10 million and RM 25 million.

In additional According to Saleh and Ndubisi,(2006) SMEs in Malaysia division into two section which are manufacturing, manufacturing-related to services and agro-based industries services, agricultures and information and communication technology. According to SMIDEC (2006) definition SMEs contribute to the Malaysian economy which includes; contribution of output (products and services); making and create of jobs opportunities; improve a pool of skilled workers; provide opportunities for technological development and growth; recommend for better understanding entrepreneurial and managerial talent In other hands Small and medium-size enterprise (SMEs) has been identify instrument and exist opportunities for grow each countries.

Finally, the context of manufacturing SMEs was chosen for this study for two reasons. First, Small-to-Medium-size Enterprises (SME) are facing tough circumstances not only domestically but also globally due to their liabilities of smallness (Aldrich, H., & Auster, E., 1986). Thus, understanding the role of their strategic orientation in their ability to compete globally could bring about important implications for their internationalization efforts. Secondly, strategic management literature has primarily focused on large multinational firms leaving a gap about the strategic moves and competitiveness of small firms (TERZIOVSKI, M., 2010)

Given these two, this study focuses on this concept and investigates its impacts on internationalization of manufacturing SMEs. SMEs in Iran and Malaysia are the primary focus of the study. In doing so, this study identifies how strategic orientation is associated with degree of internationalization in these nations. It would also suggest explanations for why degrees of internationalization vary across nations.

SMEs plays an important role in both Iran's and Malaysia's national economy. Iran has an active SME sector, which contributes significantly to the prosperity of its national economy. Secondly, the internationalization of Iranian SMEs is a priority for the competitiveness of the economy. From another angle, Iran's economy is moving toward a new era of prosperity and growth from oil dependence to export manufacturing and services. To do this, the Iranian government is paying a considerable amount of attention to this area while devoting remarkable amount of money to Iranian SMEs.

1.1.3 Strategic alliances formation antecedents

This research aims to explain the orientational antecedents of the purpose for strategic alliances formation. Toward this end, the impact of the strategic orientation (EO, IO and MO) is measured on the intention to form Strategic alliances. Based on the study by Narver and Slater (1990), market orientation is the organizational culture that most effectively and efficiently encourages the three key behaviors, namely (1) customer orientation, (2) competitor orientation, and (3) inter-functional coordination that will help an organization to achieve a sustainable competitive advantage. This is done by creating and providing superior value to its customers that can be the key for SMEs with a lack of resources to survive. The important characteristics of market-oriented firms are that they are externally oriented, which means that they have a comprehensive understanding of their target customers' needs, as well as a strong awareness of existing and potential competitors (Kumar, Subramanian, and

Yauger 1998). As an addition, market orientation facilitates firms with innovative behavior within a firm, because it ensures a proactive approach within a firm, which allows firms to search for new markets (Slater and Narver 1998). Therefore, a market-orientated firm is able to respond quickly and efficiently to changes in its external environment compare to other, which are not or are less market-orientated (Pelham and Wilson 1999). With the understanding of the importance of market orientations for firms and their relationship with expansion strategies, such as internationalization, the definition for EO and its significance in a firm's performance, particularly SMEs performance, is provided. EO is defined in many different dimensions, but the most referred dimensions of EO include: (1) Innovativeness, (2) Proactiveness, and (3) Risk-taking (Lumpkin & Dess, 1996; Shihping Kevin Huanga, Yu-Lin Wangb b., 2011). Innovativeness means that a firm is willing to follow new thoughts and ideas in its development process or products. Proactiveness refers to an organization with an avant-garde characteristic and is quick to respond on the external environment and in the particular industry, it involves in. Risk-taking means a firm pursues an entrepreneurial opportunity without concerning the resources that it may have or may not have. Currently, EO is viewed as a strategic approach in decision-making process as well as means of explaining a firm's performance (Green, Covin, and Slevin, 2008). In addition, regarding internationalization, EO allows a firm to see and exploit opportunities in foreign markets; this increase the chance of the firm to successfully enter the international market (Weerawardena et al., 2007. For illustration, Nummela, et al., (2004) propose a positive relationship between EO as managerial global attitude and the degree of internationalization. Furthermore, previous studies suggest that entrepreneurial orientation (EO) and market orientation (MO) provide the foundations on which a firm can build its interactions with foreign markets (Knight & Cavusgil, 2004; Luo, Sivakumar, & Liu, 2005). Recently, research in strategy shows that EO and MO are vital for advanced performance by firms from emerging markets

(Lau & Busenitz, 2001; Li, Liu et al., 2006; Liu, Luo, & Shi, 2003; Subramanian & Gopalakrishna, 2001), and there is also evidence which shows that EO is especially helpful in achieving success in foreign markets (Luo & Tung, 2007; Yamakawa et al., 2008; Zhou, 2007).

From the above definitions, MO and EO are important because MO influences the behavior of firms with respect to their competitors and customers. This implies the strategic logic of alliance, which denotes the importance of customer- competitor relationships in strategic alliance. In addition, EO is argued as one of the determinants of a firm's competitiveness (Luo & Tung, 2007). Since alliance is also a strategic move that empowers a firm to deal with competition, the relationship between alliance and EO in particular in the context of SMEs makes sense. It is known that this correlation has been belittled in literature or, at best, implicitly addressed. Therefore, this context reasonably deserves further empirical attention.

In addition, one of the other dimensions of strategic orientation is innovation, which is less explored, and we have lack of literature as well as empirical findings about this dimension in strategic management. Innovation orientation is the name given to an organization's flexibility to innovative ideas as well as tendency to change as a result of adopting new technology, resources, skills, and even managerial systems (Hurley and Hult, 1998; Zhou, K. Z., GAO, G. Y., Yang, Z., & Zhou, N., 2005). A firm may perhaps experience serious resistance from inside while adopting an innovative new idea. Innovation orientation is the essential driver for coping with hurdles and improving a firm's capability to effectively adopt or even implement new systems, process, and also products (Hurley and Hult, 1998).

The above statement is one of the core rationales of this research to examine the relationships between MO, EO and IO with alliance formation intentions. This, hence, contributes to the existing literature on alliance for a number of reasons. Firstly, it expands literature into

marketing and entrepreneurship domains by introducing SO as the driver for strategic alliances formation. Secondly, it enhances the understanding on alliance formation from the perspective of orientation that is related to both resources and capability.

On the other hand, there are several factors that can enhance alliance formation. Most importantly, internationalization is shown to significantly enhance alliance behavior of firms (Ma, 2012). Internationalized companies have more reasons to participate in strategic alliances (Hiroshi Yasuda, 2005). Amongst one of the key behaviors of firms that can be impacted by strategic alliance is the internationalization of the firm (Jane W. Lu, 2001). Because of this, surprisingly, how the degree of internationalization impacts the alliance formation is a question that needs to be explored more.

1.2 Problem Statement

A central premise of network theory is that firms need different networks to acquire necessary resources to compete (Moliterno, T. P., & Mahony, D. M., 2011). Subsequently the way a firm forms strategic networks is a central field of inquiry in strategic management (Zaheer, A., & Bell, G. G., 2005). Strategic alliance is a type of networks that has received remarkable attention in recent years (Moliterno et al., 2011; Moller, K., Rajala, A., & Svahn, S., 2005) however the antecedents of forming this networks seems to be under-emphasized (Moliterno et al., 2011). One of the perspectives that could explain this phenomenon is the degree of firm's internationalization, that is, their percentage of revenue from foreign markets (Lakhani, T., Kuruvilla, S., & Avgar, A., 2013; Manolova, T. S., Manev, I. M., & Gyoshev, B. S., 2013)

The above link can be explained as follows: Firms with a higher degree of internationalization have greater experience in and knowledge about international markets or

are likely to have prior alliances (Bandelj, N., & Purg, D., 2006). This makes them both appealing for firms seeking alliance and it could enhance their formation of alliance (Moliterno et al., 2011). Despite this rationale, little is known about this causation. As a result, this is the intention of this research to narrow this gap. Towards this end, this study proposes and tests a model in which a firm's degree of internationalization accounts for its intention to form a strategic alliance. This could explain an important yet neglected factor involved in the way firms vary in their intention to form strategic alliance.

Furthermore, internationalization of the firm represents its success in multiple markets (Porter, 1990, 2011). It has been a subject of on-going debate in business and management especially in today's global economy where single market competition is not enough for establishing and maintaining a competitive position (Teece, 1986). A number of perspectives explain this phenomenon such as resource-based view (Barney et al. 2011), dynamic capabilities (Barreto, 2010) and industrial organization view (IO) (Porter, 1990) however little is known about the role strategic orientation in this competitive move (Shin J-K, et al., 2011). This orientation refers to the tendency of the firm towards activities that shape a consistent strategic behavior in the marketplace (13. Liu, Y., Li, Y., & Xue, J., 2011; Escriba-Esteve, A., Sanchez-Peinado, L., & Sanchez-Peinado, E., 2009). Consequently, it is proposed that strategic orientation acts as a determinant of why some firms develop a higher degree of internationalization. However, strategic orientation is essentially a multi-dimensional construct (Hakala, H., 2011). That is, it is reflected in different behavior towards various components of a strategic position such as market and entrepreneurial activities (Escriba-Esteve et al., 2009). To embrace this issue, this study incorporates three inter-related dimensions of strategic orientation including; firm's innovation orientation (IO), market orientation (MO) and entrepreneurial orientation (EO). This is also consistent with the suggestions of Hakala, (2011). It is thus, assumed that this study address recent calls to

investigate more fine-grained views of Strategic Orientation (Escriba-Esteve et al., 2009; Cambra-Fierro, J., Florin, J., Perez, L., & Whitelock, J. n 2011; 15. Hakala, H., 2011; Boso, N., Cadogan, J. W., & Story, V. M., 2013).

To recapitulate, this study proposes and tests a model in which 1) a firm's intention to form strategic alliance is influenced by its degree of internationalization and 2) its degree of internationalization is influenced by its strategic orientation. Therefore, the degree of internationalization acts as a conduit through which, variations in strategic orientation explains variations in the intention to form strategic alliance.

Finally, since strategic management literature suggests that firm's level behaviors are largely contingent upon environmental contexts such as country of origin (Martinez-Noya, A., Garcia-Canal, E., & Guillen, M. F., 2013; Nielsen, B. B., & Nielsen, S., 2013) and environmental dynamism (Lumpkin, G. T., & Dess, G. G., 2001; Miles, M. P., Covin, J. G., & Heeley, M. B., 2000).

Two contingency factors were incorporated into this model in order to provide a better picture of the proposed relationships. The first, moderating variable is environmental dynamism also known as the speed and rate of change in the industry (Lumpkin et al., 2001) and the second moderating variable is the country of origin which in this study include Iran and Malaysia. Two reasons could explain why these two countries have been chosen. First, according to the recent global competitiveness index by Schwab, K., (2013) these two countries represent two different institutional contexts that impose different impacts on the behavior of their firms. Therefore, comparing and contrasting these two countries offer new insights into the aforementioned links. Secondly, cross-national research is dominated by American and European studies leaving a gap in Asian context. In particular, recently

management scholars (Bruton, G. D., Ahlstrom, D., & Obloj, K 2008; Zahra, S. A., 2011) have called for studying firms from middle east.

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Accordingly, this research intends to contribute some vital theoretical contributions to the small and mid-size business literature. Baker and Sinkula (2009) call for research into

entrepreneurial orientation and market orientation and the need to observe their joint impacts on firm success. In addition, SMEs are theoretically and also practically seen as a crucial element of economic and industrial development. Systematically, SMEs' development and superior performance, like other kinds of entities, basically come from organizational resources and capabilities. These resources are limited but vary widely and are unequally distributed. One of the most recognized common approaches to acquire more resources is to establish an alliance with other firms in order to share resources. This alliance should be designed and conducted competitively and intelligently to achieve its main objectives. Since larger organizations normally have more resources in a broader scope, systematically, their strategies and policies toward an alliance are quite different from SMEs, in terms of both formation and management.

In addition, other lines of research emerged from the contribution by RBV, following Li, Li, and Dalgic's (2004) study, as the objective is to explore the influence of other corporate competences, such as EO and MO and IO, on the internationalization process of an SME. In emerging markets, internationalization may take many forms (licensing, OEM, joint venture, and strategic alliance). However, in existing literature, it can be seen that there is a lack of empirical work on this context, from this, it is necessary to overcome any constraints in measuring these factors and also to be able to measure them as important variables (Yi Liu, Yuan Li, Jiaqi Xue, 2011). In addition, Zahra and George (2002), and R.G. Javalgi and Patricia, R. Todd (2011) called for the study on the impact of SO on the degree of internationalization in the context of SMEs. On the other hand, based on the study by Hongyun, Z., & Nai-ding, Y. (2010), more research is needed to understand and examine the relationship between EO as SO dimension and formal alliances. In addition, Awang, A. (2010) believes that future studies shall emphasize more on the outcomes of the concept of strategic orientation that fit and sustain the Iranian entrepreneurial firms' development and

their outcomes respectively. In addition, Javalgi, R. G., & Todd, P. R. (2011), in their article about EO and internationalization of SMEs, believe that there is a need to study SMEs internationalization in emerging markets. In addition, Shin J-K, et al. (2011), in their study about market orientation in international strategic alliances, call for further studies to consider additional factors that affect the success of strategic alliances.

In addition, research and business practice emphasize strategic alliances as a strategy for dynamic development and competitive advantage (Dagnino et al., 2010). Nonetheless, even this research dealing with international strategic alliances; include both theoretical and empirical studies. However, most empirical studies in this stream of research utilize case studies to examine the factors that influence the outcome of a strategic alliance. However, there is one limitation of case studies, which is the inability to clearly verify the relationship of effects among variables. More sophisticated empirical analysis is necessary to provide evidence on how factors can affect such alliances. It investigates the impact of SO dimensions on DOI and on the intention to initiate strategic alliances. In addition, based on the literature, there is lack of research that address the increasing role of entrepreneurial firms in emerging markets (Bruton et al., 2008; Luo et al., 2005; Todd and Javalgi, 2007). Thus, this study focuses on filling this gap in response to the recommendation made by Zahra and George (2002), and R.G. Javalgi and Patricia R. Todd (2011) by proposing a study on the impact of EO on the degree of internationalization in the context of Iranian SMEs.

Therefore, the initial aim for this study is to explain strategic alliances strategies, specifically intention to form alliance and the impact of degree of internationalization on it. Secondly, to link the relationships of strategic orientation dimensions (EO, MO, and IO) with intention to form alliances in one hand and with degree of internationalization in other hand. In addition this thesis is examined the moderator roles of environmental dynamism. Furthermore this study will investigate and describe specific theoretical and practical implications for both

academies and practitioners in SME field. Thirdly, the relationship between strategic orientation and the degree of internationalization is examined and, finally, the effect of environmental dynamism as measured as the moderator of the relationship between independent variables and to mediate variables with alliance formation intentions.

1.3 Research Question

1. How do Strategic Orientations influence Degrees of Internationalization?
2. How do the Degrees of Internationalization influence alliance formation intentions?
3. How are the impacts of Degrees of Internationalization on alliance formation intentions influenced by environmental dynamism?
4. How are the impacts of Strategic Orientations on alliance formation intentions influenced by environmental dynamism?
5. What is the relationship between Strategic Orientation and alliance formation intentions?
6. Is there any significant different between the study model in Iran and Malaysia (Does the country moderate the model)?
7. Does the combined effects of orientations make a difference to the explanatory power of the model as opposed to the decomposed model?

1.4 Research Objective

This study aims to explain the orientational antecedents of alliance formation intentions and to examine the impact of the degree of internationalization under a firm's environmental characteristics. The reason for this research is because there is a lack of exploration and

explanation dealing with the notion of strategic alliances in respect to a firm's orientations, characteristics and environmental perceptions in the literature.

This is further reduced to the following objectives:

1. To understand the relationship between Strategic Orientation and alliance formation intentions.
2. To understand the relationship between Strategic Orientation and Degrees of Internationalization.
3. To understand the relationship between Degrees of Internationalization and alliance formation intentions.
4. To explain the impact of environmental dynamism on the relationship between Degrees of Internationalization and alliance formation intentions.
5. To explain the impact of environmental dynamism on the relationship between Strategic Orientation and alliance formation intentions.
6. To investigate the effect of a country's business culture as a moderator on the model
7. To understand the combination effects of independent variables

1.4 scope of the study

The scope of this study is limited to Iranian and Malaysian manufacturing SMEs. This scope is significant for two reasons. First, by including both manufacturing and services creates cross-industrial confusing of the effects that in turn reduces the accuracy of the results (Curran, J., & Blackburn, R., 2001). Secondly, focusing on both large and small firms creates firm-size bias because small firms have different resource endowments and structures from

large firms (Boone, C., Brabander, B. D., & Witteloostuun, A. A., 1996) and consequently they pursue and implement strategies differently and are impacted by environmental forces differently (Curran et al., 2001; Boone et al., 1996). Also, by focusing on small manufacturing firms in two different countries the scope of this investigation avoids these biases and permits externally valid and methodologically reliable results with more precise implications.

1.5 Contribution of the Study

This study is consistent in dealing with a cross-national empirical research into the strategic orientation (market, innovation and entrepreneurial orientation) underpinning Degree of internationalization as well as alliances formation intentions. Specifically, this study investigates the roles of different types of organization orientation on an organization's willingness to cooperate with other firms in the future and how their own degree of internationalization can have an effect upon such a project. Furthermore, this study provides insights into strategic orientations of SMEs and their impact on DOI. In addition, based upon my review of the literature, this study explains the impact of environmental dynamism on the relationship between Degrees of Internationalization and alliance formation intentions for the first time.

Additionally, although scholars and managers are aware of the importance of Small and Medium Enterprises (SMEs) and their roles as the key participants in international business, empirical research on SMEs in the area of internationalization is still limited (Shankar Chelliah et al., 2010). For the first time, from this study, a clearer view of the intentions for strategic alliances for internationalized SMEs in Iran and Malaysia is presented in order to develop more effective strategies and initiatives in face of global challenges and competition.

In addition, the use of strategic alliances as a strategy falls under strategic network theory or interchangeably the network theory of the firm (Jiang, 2011). This theory purports to attribute success of firms to the relationships they develop within their business ecosystem (Moliterno, and Mahony, 2011). More precisely, according to the strategic network theory, a strategic alliance is a resource that is developed to enhance acquisition of other resources and development of other competencies (Gulati, Nohria, and Zaheer, 2000). The literature in strategic alliances has largely developed over the past few years (Yaprak, 2011) as the globalization of markets has boosted the number of inter-firm collaboration amongst firms operating in today's business landscape.

However, despite the striking role of this phenomenon, recent reviews of the research on the network theory and strategic alliance indicate inadequacy of knowledge on the formation side of strategic alliances (Jiang, 2011; Yaprak, 2011). More specifically, the foci of previous research has been on the functions of alliances such as learning and their consequences, such as performance and competitiveness, leaving a gap on the understanding of the intentions behind them and the factors that could influence the intention to form strategic alliances. In an attempt to address this gap and enrich strategic network theory, this study proposes and tests a model that examines the interactions of firms' business orientations, degree of internationalization and contingent roles of environmental dynamism on firms' intentions to form strategic alliances.

In addition, according to R. Duane Ireland, Justin W. Webb and Joseph E. Coombs (2005), network theory aspires to associate behavior of firms to their networks. These networks consist of formal and informal relationships with business partners who are in the business ecosystem of the firm, including customers, suppliers, and distributors and so on. For resource-deprived firms, like SMEs, this theory claims that financial and non-financial resource is available to firms through their networks.

This theory (NT) is one of the more important theoretical perspectives in the field of business and management (Moliterno and Mahoney, 2011). It aspires to attribute competitive behaviors of the firms to their networks, ties, or, simply, relationships in the business ecosystem, such as societies, markets and industries (Ireland, Webb, and Coombs, 2005). According to the NT, a firm can expand its resources and competencies through its networks, and, consequently, achieve specific outcomes, which might not have been possible without the availability of these resources through the relationships inherent in its networks (Ireland et al., 2005). In this regard, strategic alliances are one of the most important networking tools available to executives (Moliterno and Mahoney, 2011). Strategic alliance is a particular type of contractual relationship between two or more firms, which allows them to pool resources and develop mutual productive relationships to achieve different strategic objectives, such as market entry, or market share or learning and development (Nielsen, 2010; Eisenhardt and Schoonhoven, 1996).

Much has been written about the benefits and management of alliances. For instance, research has been conducted on resource sharing in alliances (Yaprak, A. 2011; Li, et al., 2012), trust amongst firms (Costa e Silva, et al., 2012; Thorgren et al., 2011), antecedence and of alliance formation (Tuntrabundit et al., 2011). However, a review of the existing literature indicates that there is a shift emerging from the functions and dynamism of networks to strategic management (Järvensivu and Möller, 2009; Moliterno and Mahoney, 2011). In this regard, a lack of adequate knowledge on the antecedent of a firm's intention to form a network in general, and strategic alliance in particular, can be found in the existing literature (Moliterno and Mahoney, 2011). Generally, a network, particularly an alliance, is considered as a source of strategic resources (Bandelji and Purg, 2006), whose formation requires strategic intent (Rui and Yip, 2008). Although this implies that different firms form alliances for different reasons, the intention to form an alliance is driven by a strategic

posture and personal experiences of the firms in question (Nielsen, 2010). This aspect is discussed in the literature, although it deserves more in-depth scrutiny (Järvensivu and Möller, 2009; Moliterno and Mahoney, 2011). Hence, this work is posited within this body of research, in order to contribute to the formation aspects of ‘network theory’ in general, and ‘strategic alliances’ in particular.

More specifically, there is inadequate theoretical and empirical knowledge regarding the intentions to form relationships and develop new networks (Moliterno and Mahoney, 2011). In lieu of this gap, here, imitating the framework for developing theoretical contribution in the management research (Reay, and Whetten, 2011) and from this study, a mediated-moderation model is proposed and tested for the antecedents of alliance formation intentions. This study aims to contribute to mainstream research on network theory and strategic alliances by developing a model that examines the intention of small firms to form these alliances based on their degree of internationalization, environmental dynamism and overall strategic orientation. This model follows the logic that forming an alliance means developing a set of strategic resources, which, in turn, requires a new strategic orientation of the firm, with a degree of familiarity with international markets.

This research also postulates and examines the degree of internationalization that would stimulate the intention to form a strategic alliance. It is because this represents a firm’s existing knowledge and experiences of international markets that enhances its selection of partners, and this helps develop strategic relationships.

A firm’s strategic orientation is assumed to serve as an enabler of its internationalization because it shows the tendency of a firm’s executives to be innovative, proactive and market-oriented. Since small firms are generally defined by the liabilities of their smallness and having resource-constraints, the presence of these tendencies will encourage managers to

improve competencies through networks (Järvensivu and Möller, 2009). The degree of a firm's internationalization can be a mediating factor, because prior research suggests that a firm's current market emphasis, particularly its knowledge and experience regarding markets directly impacts the formation of networks (Nielsen, 2010; Järvensivu and Möller, 2009; Eisenhardt and Schoonhoven, 1996). Thus, since the degree of internationalization represents a firm's accumulated emphasis and experiences of international markets (Michael A. Hitt, et al., 2006), it is argued this serves as a proxy for the firm's emphasis and experiences, where this could be an important determinant of the intentions to form alliances (Eisenhardt and Schoonhoven, 1996). Furthermore, since environmental dynamism is an important factor in forming any strategic initiatives (Wallace, et al. 2010), this variable is incorporated into the model in order to develop a better understanding of these causal links.

This framework is believed as not previously examined, thus, the model could provide new insights into this less-explored side of business literature.

The empirical contexts in this study are Iran and Malaysia. This context is assumed to be beneficial to the contribution of this research for several reasons. Firstly, the Iranian economy has suffered an extensive recession brought forth by political and legal factors (Kenneth Katzman, 2012) and is very different from Malaysian economy. This embodies the role of alliances in providing the resources and support on one hand, and in raising the issue of difficulties in forming alliances due to political impediments on the other. Secondly, the research in network theory, like many other aspects of business and management, has been dominated by studies in the western countries and developed markets. Only recently, shifts towards developing economies are observed (Ma, C., Yang, et al., 2012; Young, et al., 2011). Despite this development, the Middle East, which is an important geopolitical player in this context, has been largely overlooked, especially when it comes to validating managerial knowledge (Zahra, 2011). In lieu of this, putting this study in the context of a cross-national

problem could provide much needed additional input into the theoretical and empirical body of business and management knowledge, due to its comparative nature of comparing a developing economy in the Middle East with another developing country in south East Asia. Although the impact of economic shocks on the intention to form alliances in small business context has been studied (Marino, et al., 2008), the conditions of the recession in Iran are argued in order to expand the existing body of research that is relevant to the association between exogenous economic conditions, and network formation. This would expand this study from the relatively less-explored view of Iran, as stated by the studies of Hoyt and Huq (2000), Moller and Svahn (2003), and Zineldin and Dodourova (2005), which assert that economic downturns can act as a motivating tool for alliance formation. Finally, the results would allow the comparison of findings from a different context, and develop a broader understanding of these relationships.

The key contribution of this research is development of the notion that, firms differ in their intention to form alliances and this intention is not a given, rather it is impacted by a number of path-dependent firm-specific factors such as business orientations as well as degrees of international experience that serves as a knowledge base upon which the intention to form an alliance can be developed.

Furthermore, by testing different causal path in face of varying environmental dynamism this study adds new insights into the contingency state of alliance formation. Therefore, it narrows the existing gap in strategic contingency view and addresses calls to develop a more nuanced view of a contingent hypothesis in strategic management (Boyd, et al. 2011). It is believed that the proposed model offers several original insights to existing strategic management research, particularly the strand of research on the formation of strategic networks.

To obtain a rich empirical base for testing this model, data from Malaysian and Iranian manufacturing SMEs will be used. This cross-country context is believed to be theoretically contributory in several ways.

1.8 Organization of the Thesis

Chapter one presents the gaps and research problems of the study. According to Blackwell et al (2006) prior to conducting a business and marketing research, the research problem has to be identified. The objective of this study is to narrow these gaps in order to make several contributions to a number of related fields. Towards these ends, methodology is planned according to the suggestions of Ketchen, et al. (2008) in which a contingency approach using structural equation modeling was adopted.

Chapter two presents the various approaches a literature survey was done. This is followed by a brief discussion on the SME sector in the Malaysian and Iranian economy. It is argued that strategic orientation of firms in terms of their intentions to form strategic alliances could definitely affect the performance of Malaysian and Iranian SMEs as well as influence their degree of internationalization.

In chapter three, three new conceptual models along with research hypotheses are developed based on the literature review and research questions and objectives. Measurement issues and sampling (data collection) will be also explained in chapter three. To undertake the statistical analysis, this study follows a simple schematic model of research design proposed by Schiffman and Kanuk (2007) and supported by authors like Aaker et al (2007). This model consists of six steps to be planned and carried out successively by the researcher(s) as listed below;

1. Identifying the research problem and developing research objectives and questions;

2. Developing the theoretical background on research domain from secondary data;
3. Collecting primary and field data;
4. Undertaking proper qualitative and quantitative methods to analyze data.
5. Interpreting the data and making inferences; and
6. Conclusion and report.

The above steps could be graphically illustrated as in the flow chart below:

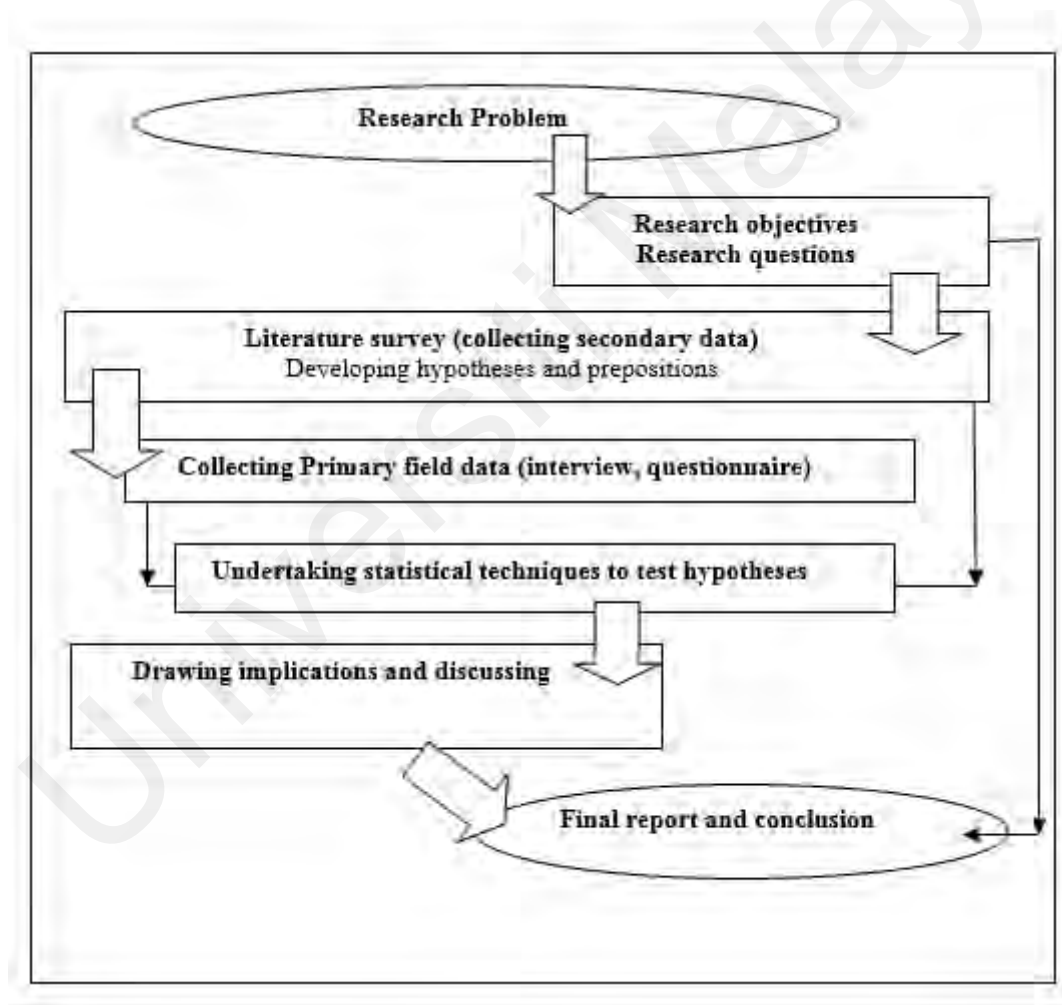


Fig 1.1: Research design of a schematic model

(Adapted from Schiffman and Kanuk 2007)

In chapter 4, research results and findings are presented. SEM (AMOS and Smart PLS) as statistical technique for testing the relationship between variables is used and research models and hypotheses are tested.

In our final chapter (Chapter 5) discussion and conclusion along with limitation and implication is presented and it will be shown how this study has met its objectives set in the first chapter.

1.9 Chapter summary

This chapter provides an introduction and overview of the thesis. The scope of the research, research questions and research objectives, contribution of the study, and structure of this thesis are presented. The background to the thesis shows strategic alliances are important contributors to effective organization performances (Van Gils et al., 2009). Even as the emergence of strategic alliances in business are considered as a cooperative strategy, and with increasing scholarly interest, the strategic alliances research field is still in a preparamagtic stage (Chrisman, et al., 2003); and, the field remains fragmented in focus and findings (Alderson, 2011; Casillas & Acedo, 2007).

Moreover, this chapter highlights that there is a lack of research that specifically focuses on the link between strategic alliances, network theory, market, innovation and entrepreneurial orientation performance, it also emphasizes the need for more research in this particular area (Moliterno, T. P., & Mahony, D. M., 2011).

The next chapter, chapter 2, offers a review of the literature concerning strategic alliances, network theory, market, innovation and entrepreneurial orientation on the SME sector within the Malaysian and Iranian economy. Strategic orientation of firms in terms of their intentions to form strategic alliances could definitely affect the performance of

Malaysian and Iranian SMEs as well as influence their degree of internationalization. Furthermore, justifications for this study as a sound contribution to current understanding of the link between the concepts are provided.

CHAPTER 2

LITERATURE REVIEW

2.0. Introduction

The main objectives of this chapter are to identify clearly the gaps in the literature and to present an overview of the strategic orientations in relation to market, entrepreneurial, and innovation contexts. Hence, the relevant reviewed literature is with the focus on the contexts of the strategic alliance research field, including theories related to competitive advantages and degrees of internationalization of SME firms. Further, this chapter analyzes and maps the literature within the current domain strategic alliance research paradigms and also investigates questions raised and alternatives proposed within the theories related to strategic alliances in business.

Scholarly interest in strategic alliances as a form of strategic cooperation between two or more firms continues to grow in strategy (Chao 2011; Jaloni Pansiri 2005; Rahman and Korn 2010), marketing (Cavazos and Varadarajan 2012), entrepreneurship (Eisenhardt and Schoonhoven 1996) and international business (Christoffersen 2013; Malik and Zhao 2013). The prevalence of alliances specially in today's globalized markets and their strategic significance have led scholars to develop the network paradigm of organizational research in which a shift of attention is taking place from an individualistic and atomistic view of the firm to a more relational and network embedded view within which firms cooperate with each other in strategic networks to enhance their survival and succeed in complex markets (Borgatti and Foster 2003; Powell 1990).

Unlike the neo-classical school of thoughts in economics which supposes that firms' actions are formed by market forces, the behavioral view of the firm suggests that firms are inherently heterogeneous and this heterogeneity roots in their resource, structural and historical endowments (Augier and March 2008; Dosi and Marengo 2007). Building on this notion previous attempts offer explanations for variation in formation of strategic alliance from three perspectives. Transaction cost economics suggest that firms form strategic alliances to reduce exposure to risks and uncertainties and minimize costs involved in transactions (Geyskens, Steenkamp and Kumar 2006; Parkhe 1993; Tsang 2000). Institutional theory argues that firms engage in strategic alliances with higher status firms in order to increase their status in markets, gain legitimacy and secure access to critical resources (Ang and Michailova 2008; Dacin, Oliver and Roy 2007; Vasudeva, Spencer and Teegeen 2013).

Resource-based view, however, takes a relatively different position and argues that alliances are formed based on resource positions of the firm (Das and Teng 2000; Eisenhardt and Schoonhoven 1996). That is, firms with resource liabilities or weaknesses enter into a partnership to improve their resource, obtain new ones and develop superior capabilities. Knowledge-based view and organizational learning lines of reasoning within this literature places the primary attention on the acquisition and transfer of knowledge between firms and attributes alliance formation to the dynamism of inter-firm learning (Grant and Baden-Fuller 2004; Hayter 2013; Steensma and Lyles 2000). Hence, firms' tendency to learn new knowledge drives formation of strategic alliances.

Strategy research suggests that firm's strategic capacity to deploy resources and learn from other firms in a cooperative and collaborative fashion is bound by the dominant logic of their strategic decision makers (Brunetto and Farr-Wharton 2007; Cavazos 2013; Cavazos and Varadarajan 2012; Niederkofler 1991; J. Pansiri 2005; Tallman and Shenkar 1994). That is, the dominant coalition of the firm or its top managers develop a strategic mindset which

characterizes key tendencies of the firm and determine how it employs its resources towards maintaining and satisfying those proclivities (Cavazos 2013; Cavazos and Varadarajan 2012; Danis 2003; Jaloni Pansiri 2005). This dominant logic forms the strategic posture of the firm which differentiates strategic behaviors of firms in an industry and offers a lens through which to distinguish strategically positioned from non-strategically positioned firms. The concept of strategic orientation of the firm (SO) captures the essence of this posture (Aragon-Sanchez and Sanchez-Marin 2005; Gatignon and Xuereb 1997; Hakala 2011). SO broadly refers to processes, practices and decision-making activities of a firm that lead to its growth (Escrib  -Esteve, S  nchez-Peinado and S  nchez-Peinado 2009). More specifically, SO relates to strategic archetypes that integrate strategic activities of firms into identifiable patterns of behavior which can be used for classifying firms into groups such as entrepreneurial or conservative firms (Miller 1983), prospectors versus defenders (Miles and Snow 1978), or cost leaders versus differentiators (Porter 1980).

To reduce conceptual limitations of this classificatory view scholars have extended the notion of SO by incorporating scales of strategic dimensions into a more complete picture of ‘why’, ‘how’ and ‘to what extent’ firms differ in what they do. For example, Venkatraman (1989) argues that the extent to which a firm practices aggressiveness, defensiveness, proactive-ness and riskiness in its courses of action determine how strategically it is oriented in the marketplace. In the same vein but from the marketing literature, scholars have argued that strategically advantaged firms are also market-oriented (Kohli and Jaworski 1990), proposing market orientation as a building block of strategic orientation. Entrepreneurship scholars have also argued that firms that embrace an entrepreneurial mindset by adopting risky, innovative and proactive strategic initiatives are more likely to success than less-entrepreneurially or more conservative firms (Lumpkin and Dess 1996). Subsequently, entrepreneurial orientation has become another building block of strategic orientation (Hakala 2011). Finally, building

on the Schumpeter's notion of innovation as the engine of growth and prosperity (Schumpeter 1934), some have proposed that firms that are innovation-oriented are better suited to withstand shocks and prosper in markets (Nambisan 2002; Ripolles Meliá, Blesa Pérez and Roig Dobón 2010). Consequently, innovation orientation has also been added to the repertoire of strategic orientations (Siguaw, Simpson and Enz 2006; Simpson, Siguaw and Enz 2006).

Despite the unique attributes of each orientation and given the fact that, understanding of the strategies of the firm is enhanced by studying its strategic orientation (Popadiuk 2012), these three orientations have been largely studied in silos pointing to the lack of conversation between them and a poor understanding of their integrative contribution to the formation of tendencies towards network-based competitive strategic course of actions such as international strategic alliances.

With the intention of narrowing this gap, this thesis posits an integrative view of SO and introduces the concept of firm's strategic orientation (SO) as a three-dimensional variable that could explain from a less-studied standpoint, why firms vary in formation of strategic alliance. We further argue that failure to include explanations from these three separate but interrelated dimensions of SO creates an impoverished account for variations in the intention to form strategic alliance (I2FSA) by SMEs and would lead to an incomplete understanding of the antecedents of intention to form strategic alliance (I2FSA). In addition, relationship of SO dimensions and degree of internationalization of firm is examined because we expect firms with higher strategic orientation are more internationalize.

Furthermore, the fundamental nature of a firm's relationship with its external environments indicates that impacts of strategic orientations on firms' strategies are contingent upon the characteristics of a business environment where the firm operates (Dickson and Weaver

1997; Koka, Madhavan and Prescott 2006; Srivastava and Frankwick 2011; Wang and Fang 2012). Environmental dynamism also known as turbulence and volatility is a key attribute of the external environment which represents rate of change and uncertainty in the markets (Sharfman 1991). Prior research suggests that under high dynamism firms are more likely to engage in cooperative activities as a way to reduce uncertainty and share risk (Street and Cameron 2007). Consequently, this study proposes a model that stipulates each strategic orientation has its own bearing on the formation of strategic alliances and this impact is more pronounced when managers seek to act under dynamic circumstances. This conceptualization is original and offers complementary insights into prior studies examining why firms differ in formation of strategic alliances (e.g. Cavazos and Varadarajan 2012; Eisenhardt and Schoonhoven 1996; Franco and Haase 2013; Glaister and Buckley 1996).

Network theory of the firm concerns how and why firms become tied by some sort of relationships and what implications dynamism of such ties has for behaviour of the firm (Moliterno and Mahony 2011). Among various types of ties within inter-firm networks are strategic alliances defined as “voluntary, long-term, contractual, relationships between two firms, designed to achieve specific objectives through collaboration” (Tjemkes *et al.* 2012, p.66). Complementary to this view, the resource-based view of the firm suggests that inter-firm networks of ties represent a specific type of strategic resources that are developed to enable partners obtain other resources and develop mutually beneficial capabilities (Das and Teng 2000). RBV however suggests that resources and capabilities are nurtured and bolstered in a strategically conducive setting (Barney, Ketchen and Wright 2011). That is, merely possession of resources and capabilities does not lead to effective collaborative behaviour so long as there is no organizational setting in place. Firms vary in their ability to foster such settings due to their organizational idiosyncrasies such as resource endowments and managerial proclivities (Barney *et al.* 2011).

As a result of these idiosyncrasies similar firms engage in various strategic initiatives at different degrees leading to heterogeneous strategic behaviours. With respect to strategic alliances, prior research has established that firms which are more strategically oriented or aligned with their business ecosystem are more likely to succeed at strategic networking (Aragon-Sanchez and Sanchez-Marin 2005; Li, Wei and Liu 2010). In other words, strategic orientation enables firms to more effectively transfer their managerial approach to inter-firm collaborations with boundary-spanning benefits. Strategic orientation in this sense represents a strategic asset that brings about the networking capacity to cultivate and harvest strategies relationships (Aragon-Sanchez and Sanchez-Marin 2005; Li *et al.* 2010). Therefore, there are theoretical reasons to argue that more strategically oriented firms are better able to benefit significantly from strategic alliances while less-strategically oriented firms experience failure. Literature (Hakala 2011) suggests that, strategic orientation can be best conceptualized as a multi-dimensional construct representing a firm' market, entrepreneurial and innovative orientation (Figure 2.1). As noted earlier, we posit that this conceptualization of strategic orientation offers a more accurate view of strategic orientation. It also represents a more nuanced understanding of strategic orientation as representative of the strategic intent of the firm for forming international networks.



Figure 2.1: A schematic view of Strategic orientation as a three-dimensional construct

Drawing on this conceptualization, we maintain that market orientation echoes a firm's orientation towards markets, customers and reflects its strategic tendency to learn from and engage in markets (Kohli and Jaworski 1990). Similarly, entrepreneurial orientation refers to a firm's inclination to behave entrepreneurially, challenge established forms and create ventures such as new products, productive processes, or new sources of supply (Lumpkin and Dess 1996; Schumpeter 1934). Finally, innovation orientation represents the degree at which a firm emphasizes innovative courses of action and promotes a culture of learning and continuous improvement (Simpson, Siguaw and Enz 2006). It is evident that , even though these three orientations overlap at routine and operational levels however offer distinct advantages and endow a firm with different strategic benefits by bringing different yet interrelated drivers of value to the firm. Notwithstanding this fact, surprisingly, very few studies have looked at the influence of strategic orientation on the formation of alliances and even less have incorporated a multi-dimensional view of SO in their conceptualization. A systematic search in the ISI Web of Knowledge summarized in Table 2.1 shows prior studies on this stream and provide evidence suggesting that an integrative model of SO as a three-dimensional construct is largely missing from the strategic alliance literature.

Table 2.1: A selective list of research on SO-strategic alliance

Authors	Dimension of SO studied	Context/sample	Key findings
Franco and Haase (2013)	Entrepreneurial orientation	A cross-sectional study among 84 Portuguese firms.	The joint impact of the Financial, and administrative resources, as well as innovative potential as determined by the firm EO predict alliance engagement.
Angel Lopez-	long-term orientation	70 Spanish domestic	Long-term orientation reinforces

Navarro, Callarisa-Fiol and Angel Moliner-Tena (2013)	of partners	export joint ventures	commitment to devoting the necessary resources and efforts to enable the export JV to succeed.
Shin, Park and Ingram (2012)	Market orientation	235 exporting firms in the US and Korea	Market orientation in an international strategic alliance between US and Korean SMEs have distinct differences but is an important factor in the success of the partnership.
Bicen and Hunt (2012)	Market orientation as a relationship property of alliance (alliance market orientation)	Conceptual	Alliance market orientation is critical in new product development (NPD) capacities of partners.
Zhao <i>et al.</i> (2011)	Entrepreneurial orientation	607 Chinese firms	EO enhances experiential learning of parents and positively influences performance of firms involved in strategic alliance.
Li, Wei and Liu (2010)	Entrepreneurial and market orientation	140 Chinese vendors	EO positively enhances engagement in outsourcing partnership and also learning from partners. MO however has an inverted u-shape impact on these factors but the interaction of MO and EO enhances learning from partners.
Kandemir, Yaprak and Cavusgil (2006)	Alliance orientation as a strategic orientation	182 U.S. firms	Alliance orientation significantly enhance firms' networking and their market performance

Rindfleisch and Moorman (2003)	Customer orientation (a dimension of market orientation)	Longitudinal study of 153 alliances in the U.S. formed from 1989 to 1995 involving 719 firms	Alliance with competitor's decreases market (customer) orientation while alliance with channel partners enhances market (customer) orientation.
Hitt <i>et al.</i> (1997)	Strategic orientation of executives	69 U.S. and 130 Korean top executives	Strategic orientation of executives rooted in their cultural background, the national policies under which they have worked, and their home country's level of economic development directly impact the international strategic alliance of their firm

As Table 2.1 shows although previous studies inform our understanding of the significance of various aspects of strategic orientation in networking of firms, a focus on an integrative is warranted because it may shed needed light on the topic of how different dimensions of a firm's strategic orientation, given their conceptual differences, predict its tendency to engage in an international strategic alliance. Next successive sections will discuss each orientation and its relevance to the formation of strategic alliance by a small firm.

This chapter consists of seven sections. Section 2.1 introduces some characteristics of strategic alliances in maintaining a business. Section 2.2 presents an overview of the strategic orientations in relation to the markets serviced, entrepreneurial considerations, and innovation contexts. In section 2.3, the definitional problems of what constitutes the degrees of internationalization of SMEs. In section 2.4, the theories related to alliance formation and intention are introduced to explain the merits of a strategic alliances where they are often seen as a collaborative effort, followed by the context of SMEs that would benefit from a

strategic alliance (Hoffmann et al., 2001). This followed by an overview of the market and entrepreneurial orientation supporting a strategic alliance, with a description presented to show the roles of various organizational orientations and the willingness to cooperate with other firms in the future, and how the degrees of internationalization can be affected. In section 2.5, an overview of suitable environmental dynamics is presented and the importance of changes in technology, changes in consumer choices, or even changes in product or service demand including the supply of materials, where there is an over emphasis on improving organizational performance. Section 2.8 introduces and explains types of innovations applicable in a strategic alliance. In section 2.9, a brief overview is presented on the types of alliance innovations found in Malaysia. This is followed by section 2.6, where I integrate these factors and the role of firm size in a strategic alliances approach suggesting that there is a link between the size of the firm in the relationship and the degree of internationalization due to firm's size which is set as a control variable. The final part of the chapter, section 2.7, summarizes this chapter.

2.1. Some characteristics of strategic alliances

Globalization, financial crises as well as environmental uncertainties, have recently created a far more complicated and sophisticated business environment locally and globally. In the present business world, internal and external challenges have pressured firms, in spite of their size and scope of operation, to explore different ways of generating and maintaining competitive advantages (Porter, M.E., 2011). In addition, it is a doubtful and difficult choice for firms to be able to create competitive advantages, only depending upon their own limited resources and capabilities. From a different side, intense competitive situations have settled a necessary rise into cooperation and co-ordination of business efforts both locally and internationally (Zahra et al., 2000). Building a collaborative network and alliances assists

companies to secure additional strategic business advantages, as a strategic alliance is to choose one or more allies to build a collaborative relationship to control and manage, share goals and boost competitive advantages (Ireland et al., 2002). Consequently, a strategic is a significant priority in today's business and management literature, and practitioners and scholars have sorted out various advantages of this strategic initiative over past several decades (Doz, Y. L., & Hamel, G., 1998). Van Gils, A., & Zwart, P. S. (2009) illustrated the alliance formation motives in SMEs context in below Table.

Industry level	Building reputation	Goldberg et al. (2003)
	Performance	Shan et al. (1994); Lohrke et al. (2006)
	Alliance experience/Diversity of experience	Park et al. (2002); Lohrke et al. (2006)
	Industry type	Dickson and Weaver (1997); Oliver (2001); Marino et al. (2002); Lohrke et al. (2006)
	Competitive rivalry	Dollinger and Golden (1992); Eisenhardt and Schoonhoven (1996); Lohrke et al. (2006)
	Competitive position	Shan (1990); Audretsch and Feldman (2003); McCutchen and Swamidass (2004); Narula (2004); Arend (2006)
	Market stage	Eisenhardt and Schoonhoven (1996)
	Market concentration	Masurel and Janszen (1998)
	Market volatility/demand	Park et al. (2002)
	Technological intensity	Byona et al. (2001)
	Technological trajectory (maturity)	Davenport and Miller (2000)
	Technological uncertainty	Steensma et al. (2000a)
	Perceived environmental uncertainty	Dickson and Weaver (1997); Marino et al. (2002); Sawyerr et al., (2003)
	Perceived munificence	Dollinger and Golden (1992); Marino et al. (2002); Lohrke et al. (2006)
Dyadic/ Partner level	Importance of networks of learning and innovation	Powell et al. (1996)
	Overall industry alliances	Park et al. (2002)
	Partner status	Bianchi (2001)
	Network position of the firm	Shan et al. (1994); Barnir and Smith (2002)
Institutional level	Propensity to network	Barnir and Smith (2002)
	Belief system	Dana (1998)
	Individualism/collectivism orientation	Dickson and Weaver (1997); Lohrke et al. (2006); Steensma et al. (2000b)
	Government policy	Marino et al. (2008)
	National culture (masculinity, uncertainty avoidance)	Steensma et al. (2000a); Steensma et al. (2000b)
	Nation	Shan (1990)

Alliance Formation Motives in SMEs		
Type of Motive	Specific Factor	Authors
Firm level	Firm size	Shan (1990); Dickson and Weaver (1997); Bayona et al. (2001); Oliver (2001); Barnir and Smith (2002); Marino et al. (2002); Park et al. (2002); Steersma et al. (2000a); Arend (2006)
	Firm age	Eisenhardt and Schoonhoven (1996); Oliver (2001); Park et al. (2002)
	Resource endowments/Access to complementary resources (including knowledge)	Forrest (1990); Deeds and Hill (1996); Suarez-Villa (1998); Bayona et al. (2001); Davenport and Miller (2000); Alvarez and Barney (2001); Chen and Chen (2002); Park et al. (2002); Audretsch and Feldman (2003); Chung et al. (2003); Chen and Huang (2004); Hyder and Abbraha (2004); Narula (2004); McCutchen and Swainidess (2004); Tötterman and Sten (2005); O'Dwyer and O'Flynn (2005); Marino et al. (2008)
	R&D capacity	Bayona et al. (2001)
	Attitude versus innovation/R&D costs	Bayona et al. (2001); McCutchen and Swainidess (2004); Arend (2006)
	Technological development stage/position	Chung et al. (2003); Narula (2004)
	Technological/ Product diversity	Oliver (2001)
	Technology sharing	Blanchi (2001); Chen and Huang (2004)
	Type of innovation/Innovation strategy	Eisenhardt and Schoonhoven (1996); Bayona et al. (2001)
	Strategy types	Golden and Dollinger (1993)
	Rate of new product development	Deeds and Hill (1996); Hyder and Abbraha (2004)
	Innovativeness of the firm's founding technology	Kelley and Rice (2001)
	Risk perception	Blanchi (2001)
	Market share	Miles et al. (1999); Bayona et al. (2001); Chen and Huang (2004)
	Market(ing) knowledge/experience	Bayona et al. (2001); Chen and Huang (2004)
	Expansion sales channels	Chen and Huang (2004)
	Internationalization/Export intensity	Dhingra (1991); Dickson and Weaver (1997); Chen and Huang (2004)
	Entrepreneurial orientation	Dickson and Weaver (1997); Marino et al. (2002); Lohrke et al. (2006)
	Top management team characteristics	Eisenhardt and Schoonhoven (1996)
	Supply chain management activities	Arend (2006)
	Outsourcing	Arend (2006)
	Attracting capital	Coombs and Deeds (2000)
	Perception of alliance benefits	Arend (2006)

Table 2.2. Alliance formation motives in SMEs (Van Gils, A., & Zwart, P. S. 2009)

Furthermore, the internationalization of a firm represents its success in multiple markets (Porter, 1990, 2011). It has been a subject of on-going debate in business and management, especially in today's global economy, where single market competition is not enough for establishing and maintaining a competitive position (Teece, 1986). A number of perspectives explain this phenomenon such as the resource-based view (Barney et al. 2011), dynamic capabilities (Barreto, 2010), and the industrial organization view (IO) (Porter, 1990), on the other hand, little is known about the role of strategic orientations in this competitive move (Shin J-K, et al., 2011). Here, orientation refers to the tendency of the firm towards activities that shape a consistent strategic behavior in the marketplace (Liu, Y., Li, Y., & Xue, J., 2011; Escriba et al., 2009). Accordingly, proposed is that strategic orientation acts as a determinant of why some firms develop a higher degree of internationalization than others do. However, strategic orientation is essentially a multi-dimensional construct (Hakala, H., 2011), that is, it

reflects a different behavior towards various components of a strategic position such as market and entrepreneurial activities (Escriba-Esteve et al., 2009). To embrace this issue, this study incorporates three inter-related dimensions of strategic orientation that includes a firm's innovation orientation (IO), market orientation (MO) and entrepreneurial orientation (EO).

As mentioned in chapter one, the initial aim for this research is to clarify the rationale of a strategic alliances strategy and in particular the alliance's formation and intentions along with the effects of internationalization. For the second step, the association between EO, MO, and IO with alliances formation and intentions, and in particular, for SMEs in Iran and Malaysia, is going to examine a number of implications for SMEs academics and practitioners. For the third step, is the assessment of the correlation between strategic orientation and the degrees of internationalization, and finally, the impacts of environmental dynamism is measured as the moderator of the relationship between the independent variables and mediating variable with alliance formation's intentions. In conclusion, the core objective of this literature review is to situate the existing research within the body of available literature, and in chapter concerning research variables I will provide and present an in depth Literature Review from relevant previous studies.

2.2 Strategic Orientations (Market, Entrepreneurial, Innovation Orientations)

Rapid global competition has made the environment for conducting businesses becoming more confusing complicated, and aggressive, as the internal and external business environments are ever changing (Prahalad & Ahmed, 2006). Companies have no choice but to adapt to new environments by proposing new offerings in order to resolve the obstacles faced by new markets with different customer profiles and perceptions. Thus, companies demand innovative and creative approaches that ensure a competitive advantage derived from entrepreneurial and marketing activities (Shihping et al., 2001), the given environment will

not affect all companies in the same manner, even in the similar business cluster. Several companies may possibly “anchor their responses mainly to the behaviors of other companies which are strategically comparable to them” (Garcia-Pont and Nohria, 2002). Some others may perhaps implement a more independent posture, including a variety of approaches such as a greater focus on innovation (Hu et al., 2011). The reactions of firms to their environment are typically in accordance with the strategic orientation of a company (Manu and Sriram, 1996), as Manu describes strategic orientation as how a company employs strategy to modify or adjust facets of its environment for a more profitable and beneficial position. Typically, a strategic orientation is a firm’s strategic path in forming appropriate behaviors in order to achieve an outstanding overall performance (Gatignon and Xuereb, 1997; Zhou, K. Z., GAO, G. Y., Yang, Z., & Zhou, N., 2005). In this thesis, although the strategic orientation is a multi-dimensional construct based on the literature, the three most important dimensions of this market variable are illustrated in this section.

Based on the opinion of RBV, Entrepreneurial Orientation (EO) and Market Orientation (MO) are two different orientations but complement each other (Miles & Arnold, 1991). Both orientations focus on the understanding of the industrial environment, which comprises of market information and strategies used by competitors in order to create innovation and answer consumers’ demands in an efficient manner. In addition, previous scholarly studies recommend that market and entrepreneurial orientations assist each other (Hu et al., 2011; Baker et al., 2009) and jointly develop competitive advantages (Hult et al., 2001). The combination of a strong market as well as powerful entrepreneurial orientations is advantageous in many different circumstances (Baker et al., 2009), for example SMEs (Tzokas et al., 2001), and high-tech industry sectors (Zahra, 2008). Furthermore, Innovation orientation is an important strategic dimension and easily combines with the entrepreneurial orientation construct (Siguaw et al., 2006). Both promote strategies that motivate the

generation of new ideas as well as assist innovative and competitively intense market positioning (Cooper et al., 1989). In addition, according to Hu et al., (2011), the synergy of complementary strategic orientation dimensions is eventually more effective and efficient as compared to any independent implementation.

Miller and Friesen first suggested the term EO back in the year 1982. In a study of entrepreneurship, EO has been associated positively with the performance of firms (Lumpkin and Dess, 1996). Since the 1980s, EO has been classified the main component within the strategic management and study of entrepreneurship. Covin et al. (2006) defines EO as a strategic construct, where the main concepts comprise of firm-level results and management-linked preferences, beliefs, and expression of behaviors among strategic level managers in the company. Runyan et al. (2008) state that EO is a proven factor through the predisposition of entrepreneurs towards innovations, pro-activeness, and tolerance to risk, this is supported by Miller (1983) as well as Covin and Slevin (1989) as they argue that these characteristics seem critical in regards to EO. Rauch et al. (2009) state that these dimensions have been commonly used in understanding the orientation of entrepreneurship (Lumpkin & Dess, 1996; Shihping Kevin Huanga, Yu-Lin Wangb,b. 2001), which can be identified as:

- 1 . Innovativeness refers to the motivation of an organization in obtaining new concepts and ideas in supplying products and services. It defines creativity and experimentations by the introduction of new products as well as new technologies through research and development.
- 2 . Pro-activeness is the characteristic whereby companies look forward to future changes and respond efficiently to their external environment. Soininen, J., et al. (2001) argue that pro-activeness is also a forward-looking and opportunity-seeking mentality

characterized by the launching of new products to battle competitors in advance and predicting future consumer's needs and wants.

3. Risk tolerance refers to situations where companies select an entrepreneurial opportunity regardless of the sufficiency of resources. Currently, EO is perceived not only as a strategic approach used in the process of making decision but also as a way of elaborating the performances of companies (Green et al., 2008). In addition, risk tolerance can also be known as the willingness to engage uncertainties, financial risks, and the commitment of extraordinary resources to invest in unknown situations, in other words, 'The art of business is making irrevocable decisions using incomplete information.' It means that high strategic responses tend to engage, identify, make as well as develop new opportunities and strategic renewals to maintain an existing competitive advantage.

As mentioned earlier, the concept of EO captures processes at the firm level, including business practices, styles of making decisions, and the SO of companies. Previous researchers have paid attention mainly to the three dimensions of EO regarding the international perspectives, which are innovativeness, risk-tolerance, and pro-activeness. For the first dimension, innovativeness is the urge of a company to get involved in experimentation and the generation of new ideas as well as to establish new practices. Innovation brings new products as well as new processing methods and systems that help to distinguish a company from its competitors as it expands to compete at the international level. It also improves the company's knowledge base, allowing the company to come up with new competitive strategies, which can be utilized in global markets. For the second dimension of EO, pro-activeness, this can be recognized as the process of predicting and reacting towards the future market demands as the firm seeks new opportunities that may be related to its current focus. This, by introducing new products or brands before the competition, and by deleting

operations that are maturing or declining as part of a product's life cycle, as it is the tendency of a company to act aggressively with its competitors. Lastly, the third dimension of EO, risk-tolerance, refers to the degree to which managers have the will to deal with risk and use valuable resources that support a project that if it fails, creates a costly collapse.

Based on a strategic perspective, risk taking or tolerance is the appetite of a company to accept business opportunities by applying strategic actions when facing uncertainty. Therefore, global EO also comprises of the will to innovate and come up with new products or ideas to become more pro-active than other players in the market towards new opportunities in a new market, and, taking risks with new products, and services. EO also allows a company to foresee and explore opportunities in global markets, enabling it to enter the market successfully (Weerawardena et al., 2007). In addition, Nummela (2004) also proposes that there is a direct relationship between the level of internationalization and EO.

According to Yamakawa et al., (2008), EO is especially a crucial capacity that pushes companies into the global market. Strong competition in domestic markets has forced many firms to foresee and chase new opportunities in the global market (Luo & Tung, 2007). When going global, companies sourced in the developing world's markets need to develop and innovate new products, be realistic, and pro-active in order to seize opportunities and react quickly to gain the best possible outcomes from their scarce resources (Bonaglia et al., 2007). This strategic idea enables companies to evade many uncertainties in the environment, and to form a stable competitive advantage in the global market. Moreover, EO is influential in motivating these companies to move from the developing markets and get into the much larger global level with the associated uncertainties and risks.

Expanding businesses into foreign markets also could cause firms to face many obstacles, including the ones caused by other global and local market players, due to lack of familiarity

with the new market environment (Luo, Tung, 2007). One of the approaches for these firms is to apply Market Orientation (MO) processes, as this provides significant outcomes by using the attitudes of customers, analyzing information regarding competitors, as well as providing the right goods and services at the best possible time and at the right location (Child et al., 2005). Market orientation allows companies to focus on the knowledge developed from the analysis of competitors and customers and could react accordingly to the new market information (Narver & Slater, 1990). MO companies foresee trends and events in the market before their competitors (Day, 1994).

The success and failure of a firm when expanding into the foreign market depends on its ability to organize its resources efficiently (Ketchen, Hult, & Slater, 2007), and as mentioned previously, MO is about generating products, efficiently distributing them to answer the demands of the relevant marketplaces. MO firms have the ability and resources to gather organized information, where this information could include future and current requirements of consumers, the plans for, and abilities of, other market players and the changing external environment of the business (Xinming He, Yingqi Wei, 2011).

MO is defined as the 'well organized use of knowledge to guide the direction of business strategy, its understanding, its creation, choosing its direction, applying it specifically and in a general sense, and altering it, if needed' as a strategic response and adaptation to global markets (Hunt & Morgan, 1995). This allows companies to create products that suit the given market by listening to, and getting directly involved in the product quality delivered to customers and differentiated offerings to meet their current demand and future expectations. This is accomplished by focusing on the external environment in order to stay updated with the constantly changing surroundings as well as planning for research and development, active marketing activities, and timely delivery of their products and services that is the market intelligence gathered.

MO is crucial in the global environment (Root, 1987), as foreign market are more complicated than the local market (Anderson, E., & Coughlan, A. T., 1987). There are many alternative possibilities to deal with, namely the technology, economy, politics, culture, or social environment of all relevant market involvements. This complexity raises the demand for the generation of market intelligence, its distribution, and the firm's responsiveness to this vital resource. Comparing companies without MO, those with MO who understand the targeted foreign market better in terms of their customer's demands, their competitor's strategies, and abilities, shows those companies with MO are more adept to gain a competitive advantage. In other words, MO generates value and it is rare and does not have a cheaper substitute. Firms with MO can overcome the differences of culture and choose markets based on MO by looking at the opportunities and returns it always produces (Xinming He, Yingqi Wei, 2011). The act of internationalizing is an evolutionary process where firms come up with great commitments to global markets as they pass through a given paradigm (Madsen, T. K., & Servais, P., 1997; Brooke, 1986). Familiarity with the relevant market is an essential attribute because it reduces risk and uncertainties related to process of making global market relevant decisions.

There are studies concerning the usefulness of MO in Small Medium Enterprises (Low, D. R., Chapman, R. L., & Sloan, T. R., 2007; Keskin, H., 2006). In relation to the RBV approach, and based on the studies of Ketchen, D. J., Hult, G. T. M., & Slater, S. F., (2007) and Li et al., (2004), Yip et al., (2000), Market Orientation can also be defined as the competency of a firm that supports its activities in the local or foreign market through the process of organizational learning. MO firms who use organizational learning from their local and foreign markets indicate one of the more important parts of the sequential approach of internationalization.

To sum up, the global MO of a firm is an additional competence type that involves the firm's actions in the global market. Thus, here the view of MO is as an antecedent of the process of internationalization of SMEs because: (1) MO enhances the learning process in the global market and (2) high MO companies have higher abilities to acquire market knowledge and create an effective market considered responses.

Furthermore, previous literature illustrated MO in different ways. Some scholars use this term as something similar to customer orientation (Narver, J. C., & Slater, S. F., 1990; Sharpino, 1988), while others define it as a theory in business that brings inter-functional coordination that improves the performances of companies (Gronroos, 1989). All can be grouped into two main categories:

- I. A cultural perspective: this views MO as part of the culture of an organization, and is permanently guiding the company towards the development and delivery of greater value for its customers (Narver and Slater, 1990).
- II. A behavioral perspective: this views MO as a special behavior of an organization, such as linking current and future demands, as well as distributing the market intelligence across departments to obtain considered responses (Kohli and Jaworski, 1990).

The above two categories of viewpoints are complimentary, as MO indicates the development of culture in a company that nurtures abilities through learning, which is derived from MO behaviors that yield superior performances.

In addition, it can be said that the greater the MO significance, the greater the esprit de corps and commitment of a firm to its staff. Many executives find that MO provides a number of social and psychological benefits. MO also brings a sense of belonging within a company, where all departments and people work together towards a similar goal in serving its

customers. This all helps to encourage employees to share their satisfaction of their efforts as well as their job contentment and their commitment to the firm. MO is also likely to bring performance improvement as it is a major part of the culture of a firm where it encourages the creation of behavior in providing superior values for customers, thus, bringing constant profits for the firm.

The influence of MO in the context of overseas markets is related to the association between the MO and EO of a firm, and this association is highlighted completely in the literature. As an example, the influence of MO on the innovative behavior of a firm is encountered by the accomplishments of new product development, which can be directly connected to MO (Verhees and Meulenbergh 2004). In addition, pro-activity is a fundamental element of MO firms, in which information motivates innovation to face environment changes. MO companies aim to fulfill both tangible and hidden needs of consumers by creating additional values for its offerings (Slater et al., 1995). Most of companies undertake a long-term market strategy and generally create learning processes. Finally, the urge or will to endure challenges is an attribute of the superior administration in most MO firms (Jaworski et al., 1993), and continuing with the debate, these authors came to the conclusion that MO attitudes and entrepreneurial attitudes possess these common characteristics.

Generally, because of the limitation of size and resources, it is difficult for SMEs to get into the international marketplace, as well as to maintain their business growth, and to survive in the international market that they managed find a potentially profitable place. Several SME entrepreneurs are concerned about their potential unlimited risks and actual competition in establishing global operations. However, they also foresee that the globalized economy would bring opportunities and growth, and they understand that the risks may yield later rewards. SMEs must understand their circumstances and abilities to capture opportunities in global markets. EO will bring better operations qualities in business, establishing the

capability to take risks, clearly recognizing opportunities, and successfully striving with existing players in the global markets. Internationalization of SMEs is an entrepreneurial behavior of these firms, where such behavior concentrates on highly strong product identification, market exploration, and opportunities seeking, from this, EO display the proactiveness and activity of a company in engaging itself in the global market. Under these circumstances, the success of SMEs will greatly depend on whether or not they are able to find and sort out proper strategies when facing challenging obstacles. SMEs must apply entrepreneurial strategies to look for more opportunities and, then, combine resources to gain competitive advantages.

Different from EO, MO puts more focus on reliable customers and pays attention to creating profits and keeping good customer values (Kohli & Jaworski, 1990; Slater & Narver, 1995). Companies with strong MO pay attention to their customers, competitors and also their internal functions by studying their markets (Narver & Slater, 1990). Academic researchers and business experts have proposed the importance of MO and related activities in the performance of a company. They state that companies with high MO will aspire to always provide outstanding values for their customers and perform with authority (Kirca, A. H., Jayachandran, S., & Bearden, W. O., 2005). In addition, Knight et al., (2004) mention that, MO provides the foundation, where companies may cooperate within different international markets.

Companies that apply this strategic attitude would make specific MO activities targeted at facing obstacles and enhancing performances. Knight (2000) finds the associations among EO, marketing strategies, as well as a SME's performance, and several researchers conclude the reality of a relationship between EO and international level performance. Nevertheless, none has studied the relation between the degree of EO and internationalization. Based on past research, SMEs with high EO are more motivated to upgrade their market offerings, to

try new management styles, as well as new methods of manufacturing, and to be the leader in order to control the market.

In terms of MO, the ability to sense the market can help companies to find and exploit market opportunities, and then come up with value-based proposal, which could influence the entire company as corporate resources must be supportive in creating a market-responsive company (Narver and Slater, 1990). MO helps a company to recognize new opportunities in the foreign market to be developed, and that requires resources as well as commitments to produce additional customer value. Hence, MO firms will be active in seeking opportunities and have a greater motivation to commit themselves in these processes.

In addition, Shin J-K, et al (2011) finds that MO and the performance of strategic alliances are related. This is supported by One-Yun, Z. and Nai-ding, Y. (2010). Concluding, because EO and MO firms can take risks, are innovative and pro-active, and can better service their customers, they tend to be more motivated consider new strategies and share them with other companies in their business alliance.

One of the less explored dimension of SO is innovation orientation and even very few researchers within the large body of the innovation literature have covered the perception of innovation orientation (Siguaw et al., 2006). Innovation orientations are the most crucial strategic dimensions that companies need to accomplish long-term success (Deshpande et al., 1993; Berthon et al., 1999; Hurley et al., 1998; Noble et al., 2002; Zhou et al., 2005). Nevertheless, as the majority of existing studies have already been developed for developed countries (i.e., Western countries), the role of innovation orientations in some other places and circumstances remains unclear at this time (Deshpande et al., 2000).

Innovation orientation is an abbreviation for an organization's willingness to innovate with new ideas as well as having a desire to change through implementing innovative

technologies, using new resources, and new learning abilities together with new managerial systems (Zhou et al., 2005). However, an organization may possibly experience intense internal resistance while implementing these new methods (Hurley et al., 1998), even though innovation orientation is the essential driver for dealing with challenges and improving a firm's capability to profitably and effectively implement new systems or methods (Zhou et al., 2005; Hurley et al., 1998).

In addition, according to Carr (1999), companies generate innovation through various ways, such as new business models or through developing new innovative products, services or both. All these innovative ways helps a firm sustain or even overtake a marketplace, to outperform rivals, or to help guarantee long term developments, especially in the exceptionally complex and turbulent conditions of our current world's markets (Eisenhardt et al., 1999 ; Lawless et al., 1996). In view of each of mentioned ways as well as other advantages of innovation, considerable numbers of studies have assessed innovations by concentrating mainly upon innovation typologies, R&D, and innovation diffusion or penetration (Freeman, 1994). Although these previous studies have presented significant contribution to the innovation literature, the general body of literature of innovation studies ignore the propensity of a firm to continuously innovate simply because an organizational goal or orientation (Siguaw, J. A., Simpson, P. M., & Enz, C. A., 2006). On the other hand, innovation orientation may result into a genuine innovative progress as a consequence of its own emphasis on creativeness (Berthon et al., 1999; Hurley and Hult, 1998). Innovation oriented companies are likely to implement new and radical innovations as well as the simply incremental (Tushman et al., 1996), and at a faster rate (Vazquez et al., 2001).

Kundu et al., (2003), in their study deemed “intention to be innovative” as a component of innovation orientation , while Homburg et al., (2002), considers innovation orientation as a quantity of innovations a firm presents to its customers, the number of consumers these types

of innovations are supplied to, and also how the customer genuinely values these innovations. Worren et al., (2002) conceptualized innovation orientation as having the entrepreneurial intention for creating new products or entering new markets with current products. The firm's personnel are also incorporated into the innovation orientation, as Atuahene (2001) regards IO as "an organization's human resource practices which encourage innovative and risky actions that will allow personnel to deal with new technologies". In addition, Amabile (1997) maintains that the primary aspects of the innovation orientation are "an orientation in the form towards risk, a feeling of satisfaction in the organization's people and also passion as to what they really are able to carrying".

The innovation literature to date mainly relies on just a few particular, commonly calculated outcomes of innovation, with number of researchers investigating the relationship between a more comprehensive innovation orientation and its organizational outcomes (Simpson, P. M., Siguaw, J. A., & Enz, C. A., 2006; Totterdell et al., 2002). Just some of the particular innovation consequences researched until now, include range of innovations implementation (Han and Srivastava, 1998), overall performance (Hult et al., 2004), new product development as well as market access (Manu and Sriram, 1996). According to Simpson et al., 2006, there is a lack of research about the consequences of innovation and in particular innovation orientation. Therefore, this thesis, investigates the relationship between innovation orientation and the intention to form alliances in one hand and examined are the consequences on degrees of internationalization on the other. In addition, other independent variables (other dimensions of strategic orientation) are investigated that moderate the impacts of environmental dynamism upon relationships with these other variables.

2.3 Degree of Internationalization of SMEs

Generally, the contribution of SMEs to internationalization is minuscule due its present fiscal and managerial limitations (KU-HO LIN et al. 2007; Boter and Holmquist, 1996; Gankema, Snuif and Zwart, 2000). However, with recent developments in internationalization, international markets are no longer limited to multinational corporations. These new trends encourage many SMEs to internationalize as their involvement creates opportunities and encourages profitable growth (KU-HO LIN et al., 2007). Today, an increasing number of research projects concerning internationalized small-and-medium-sized enterprises are available in the current literature (Zain and Ng, 2006). Despite the fact that most of the SMEs consider internationalization as a new and even undiscovered phase of business (Anja et al., 2009) because the internationalization process involves new challenges and concerns (Zain and Ng, 2006).

The literature concerning internationalization of SMEs discusses three approaches: (1) The stage approach, (2) The network approach, (3) The born global approach (McDougall, 2005; Briga Hynes, 2010).

The objective of this study is to discuss the network approach. The network approach illustrates that successful internationalization relies heavily on developing networks of business relationships in order to aid the internationalization process (Lloyd Reason, 2002). This approach overcomes the lack of financial and technological resources of SMEs, and helps them cope with challenges, while facilitating an international market presence (Briga Hynes, 2010). The networks can either be informal or formal relationships, alliances with other firms at any stage of the firm's development. Networks provide benefits in determining foreign market selection, and with marketing activities within international markets (Bell et al., 2004; Oviatt and McDougall, 2005). The establishment of networks, although vital to

SMEs in order to overcome their limited resources, still relies on effective management to make the alliance function (Oviatt and McDougall, 2005). Compared to larger organizations, SMEs are limited by their market access and necessary resources when attempting to acquire information or knowledge about foreign markets (Yip, Biscarri and Monti, 2000; Li, Li, and Dalgic, 2004), and their level of experience is lacking in comparison to their more seasoned, and perhaps larger counterparts (Yip et al., 2000; Li, Li et al., 2004). However, the effective implementation of network theory can help SMEs cope with these obstacle and challenges.

Then again, the relevance of entrepreneurs has been emphasized in the literature, which exhibits a positive relationship between international development and an entrepreneur's international orientation (Zahra, Hayton and O'Neill 2001; Lumpkin and Dess, 1996). From this view, international entrepreneurship evolves from the point of discovery through to the exploitation of opportunities in the international arena. The pursuit of such opportunities requires the creation of new enterprises, along with the entry into existing or new markets (Davidsson and Wiklund, 2001; Moran and Ghoshal, 1999). Collinson, S. and Houlden, J (2005), in their study entitled “Decision-Making and Market Orientation in the Internationalization Process of SMEs”, introduces several external and internal environments within SMEs that act as initiators of internationalization, and emphasizing the role of the decision makers in an SME (CEO or owner). Their study illustrates the importance of networks and MO in the internationalization of SMEs, and this concept is outlined in the figure below.

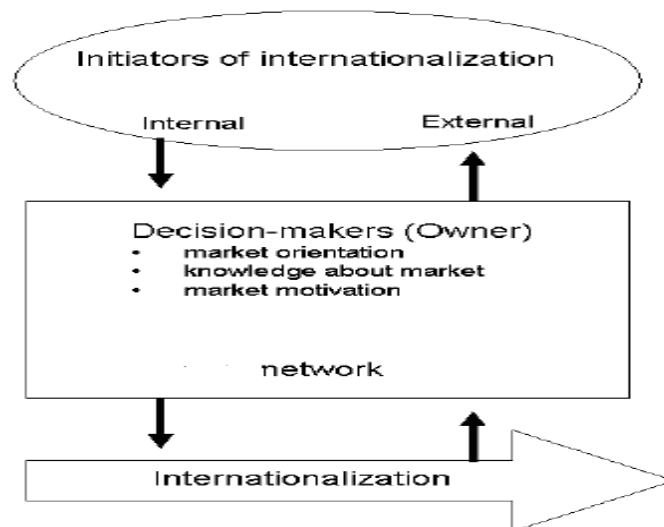


Fig 2.2: Decision-Making and Market Orientation in the Internationalization Process of SMEs (Collinson, S., Houlden, J. 2005)

Furthermore, a study by Lei Li (2011) systematically addresses the direct and joint effects of a firm's degree of internalization on an SME's performance. He illustrates that the degree of internalization is correlated to firm's intention to enter foreign markets by forming alliances or other related cross-border strategies. This shows that the firm's' performance measure of interest to become internationalized is mostly the degree of the firm's internationalization, rather than the financial return or economic advantage realized from an export venture (David B. Stewart 1997), noting that the degree of internationalization is generally described as the extent to which a firm attempts to internationalize, or more specifically, the level of emphasis placed by executives on internationalizing new markets. A study by Sullivan (1994) on the DOI of a firm results in the forming of three attributes: (1) performance (what goes on overseas), (2) structural (resources placed overseas), and (3) attitudinal (top management's attitude towards international business). The ever changing pace technological development and competitive conditions have created a suitable setting for small firms to internationalize, and strategic alliances are being utilized to achieve many objectives in international markets (Ireland, Hitt and Vaidyanath, 2002; Alvarez et al., 2006). This study attempts to explain the

effect of a firm's specific orientations on its degree of internationalization, and the incorporation of DOI's mediating role on the intention to form strategic alliances. It also investigates the impact of the orientation antecedents of the intention to initiate strategic alliances and DOI under a firm's environmental characteristics.

2.4 Alliances formation intentions

Globalization, financial crises as well as environmental uncertainties cause a far more complicated and sophisticated business environment globally along with domestic instabilities. In present business world, internal and external challenges have pressured firms, in spite of their size and scope of operation, to explore different ways of generating and maintaining competitive advantages (Porter, M. E., 2011). For firms depending on their own limited resources and capabilities cannot really provide this potential to create competitive advantages or even sustain them. Additionally, creating new resources is a time consuming process and usually requires particular endeavors, consequently it is significantly less trouble-free as assumed. However, intense competitive situations have sourced new avenues of cooperation and co-ordination not only in local and national marketplaces, but also globally (Zahra, S. A., Ireland, R. D., & Hitt, M. A., 2000).

Building an ally, a variety of allies via a network of collaborations, as well as alliances, assists companies to secure supplementary administrative and profit gains. Strategic alliances are a strategic behavior to choose one or even more allies in addition to build a collaboration to control and also manage, and to share goals that boost advantage (Ireland, R. D., Hitt, M. A., & Vaidyanath, D., 2002).

Consequently, a strategic alliance is a fashionable priority in today's business and management literature and practitioners and scholars have examined various advantages of initiative over past several years.

The strategic alliance is a widespread force in its application, and it also forms the core of strategic management (Rothaermel, F. T., 2013; Vos, P., & Burgers, K., 2012; Doz and Hamel 1995,1998; Carpenter, M. A., Sanders, W. G., & Harling, K. F., 2012; Berney, 1997;Eden and Achermann, 1998; Hunger, 1999; Hitt et al.2007;David, 2007and Thompson et al. 2008), international business(Christoffersen, J., 2013; Ma, C., Yang, Z., Yao, Z., Fisher, G., & Fang, E. E., 2012; Shenkar and Luo, 2004; Dunning, J. H., & Dunning, J. H., 2012; Hill, 2005 ;Gareth and George, 2008; Wassmer, U., 2010). This is because a strategic alliance consists of many different facets of correlated viewpoints, such as managerial, financial organizational and strategic operations. Hitt et al. (2006) stipulate that, technically, this strategy is a set of cooperative strategies that are perceived as primary manifestations of this type of strategy, while a cooperative strategy is seen when firms combine some of their resources and capabilities in order to create a competitive advantage. Other authors (David, 2007; Thompson et al. 2008) also support this definition and are technically known as a collaborative or relational advantage, usually pursued on a mutual basis by participating firms. This is summarized in the figure 2.3 below:

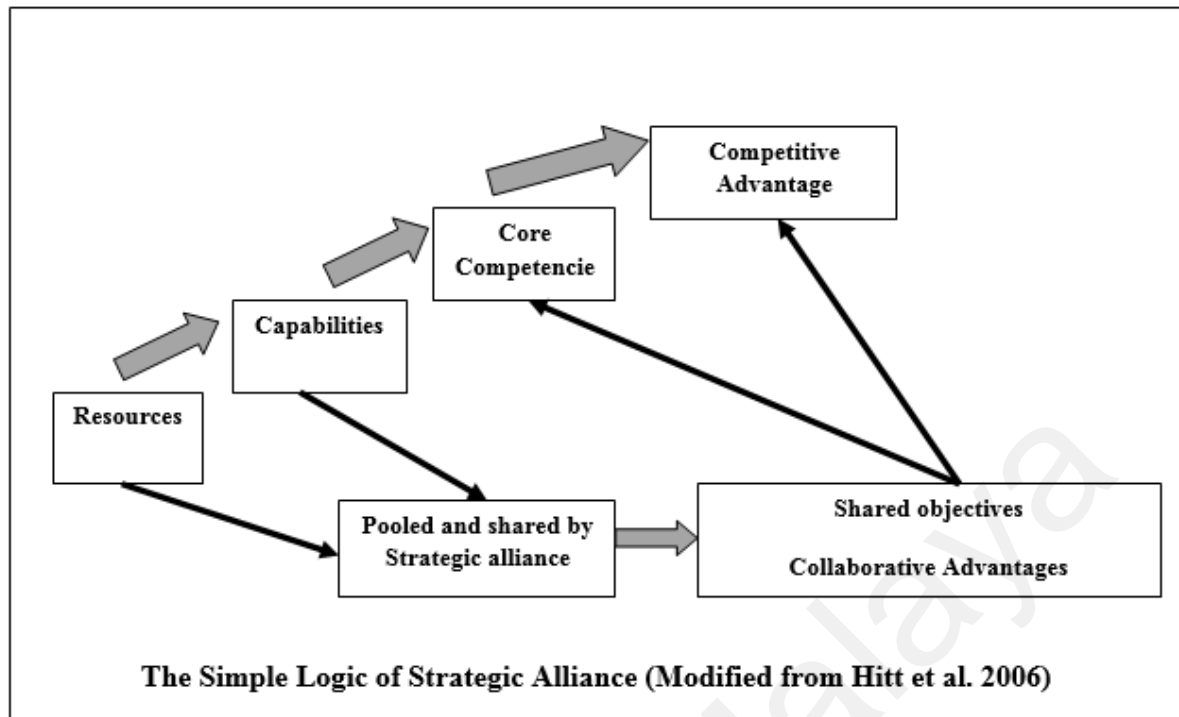


Fig 2.3: Simple logic of Strategic Alliance

The current rapid development of technology and globalization places undue pressure on enterprises to improve their competitive advantage over their respective rivals. This achieved primarily by utilizing collaborative strategies in order to create and develop new competitive advantages for the firm, or strengthen and upgrade current ones (Rothaermel et al., 2013).

Hitt et al. (2006) considers strategies where enterprises cooperate to achieve a shared objective by creating value, which exceeds the costs accrued by companies, and making strategic alliance analogous to a strategic coalition (Porter and Fuller, 1986) or to strategic networks (Jarillo, 1988, 1993).

Therefore, it is prudent to note that the definition of strategic alliance touches some important issues, as listed below:

1. A strategic alliance is a cooperative strategy, which requires constructive partners in order to conduct and successfully develop this partnership.
2. Organizational resources and capabilities often are shared, while new ones are created and used by a well-managed strategic alliance.
3. Firms pursue shared objectives and create value by creating processes and cooperative competitive advantages.

According to both the definition and perceived implications, strategic alliances produce beneficial results and makes strategic actions as an interesting issue for industry and for scholars in dealing with its analytical and theoretical aspects. The next section delves deeper into some of the merits of strategic alliances.

2.4.1 Merits of Strategic Alliances

Because a strategic alliance is often seen as a collaborative effort, its benefits and advantages have been continuously studied and analyzed (Zoogah, D. B., Vora, D., Richard, O., & Peng, M. W., 2011; Eden and Achermann, 1998; Hitt et al. 2007; Jiang, R. J., Tao, Q. T., & Santoro, M. D., 2010). Extensive strategic alliances advantages by Hitt et al. (2006), are listed below:

1. Creating cooperative value
2. Reducing the influences of risk
3. More rapid market entrance and access to a market
4. Ability to accomplish the filling of the resource and capabilities gaps
5. Enhancing and facilitating learning

6. Enhancing knowledge sharing
7. Better access to resources
8. Reducing the intensity of competition
9. Better market positioning
10. Improving market share
11. Customer richness and accessibility
12. Building strategic flexibility
13. Better networking and establishment of social capital (reciprocity exist)

Thompson et al. (2007) support these benefits and add five unique features to these benefits that make it more than just a convenient mutual business agreement:

1. It is critical for e-enterprises to achieve an important objective through alliance
2. It helps to build, sustain, and enhance the core competencies and its competitive advantage
3. It helps to block a competitive threat through collaboration
4. It helps to discover important new joint market opportunities
5. It mitigates significant risks

As an addition, other authors (Eden and Achermann, 1998; David, 2007) provide other advantages of strategic alliance, as detailed below:

1. Expediting the development of promising new technologies, products or services

2. Overcoming the existing deficit in technical and manufacturing expertise
3. Filling human-based skill gaps
4. Bringing skills together to create desirable capabilities
5. Improving the efficiency of the supply chain
6. Gaining economies of scale
7. Achievement of economies of scope
8. Acquiring and improving market access and customer richness
9. Opening up learning opportunities
10. Abilities to leverage better resources strengths
11. Helping firms to stay abreast of the latest development and technologies
12. Enhancing market leadership and better positioning
13. Establishing of a stronger base for participating in target industries
14. Mastering new techniques in CRM and SCM

From an alternative perspective, strategic alliances are strategies formulated to generate a competitive advantage in every strategic level, and, as a consequence, these are categorized according to their strategic scope as well as purpose (David , 2007 ; Thompson et al . 2008). Within this perspective, Hitt et al. (2007) categorize strategic alliances in regards to their competitive scope at the business level and corporate level strategies, along with global points of view as follows:

- “1. Business level vertical complementary strategic alliances (sharing resources and capabilities from different stages of the value chain)
2. Business level horizontal complementary strategic alliances (sharing resources and capabilities from the same stages of value chain)
3. Corporate level diversifying strategic alliances (to diversify into new products or markets or both)
4. Corporate level synergistic alliances (to create economy of scope similar to business level horizontal complementary strategic alliance)
5. Corporate level franchising (to use a franchise as a contractual relationship to describe and control the sharing and pooling of resources with partners between franchiser and franchisee)
6. Cross-border strategic alliance is an international cooperative strategy where enterprises and firms in different countries share their resources and capabilities in order to create an international-based competitive advantage
7. Network strategic alliance is a cooperative strategy in which enterprises agree to form a network, which consists of multiple partnerships in order to achieve shared objectives and create relational competitive advantage.”

Researchers, scholars and international businesses have adopted strategic and marketing alliances as their major market entry avenue (Jiang et al., 2010; Shenkar and Luo, 2004; Gareth and George, 2008; Verb eke, A, 2013). These types of alliances allow a firm to establish quickly in an overseas market through a mutual process, outlined in the figure 2.4 below. As for SMEs, in order to establish a prospering alliance, they need to adapt a joint facilities agreement and use local alliances over international ones, as normally SMEs may

lack the requisite economic necessities to justify additional expenses and facilities.

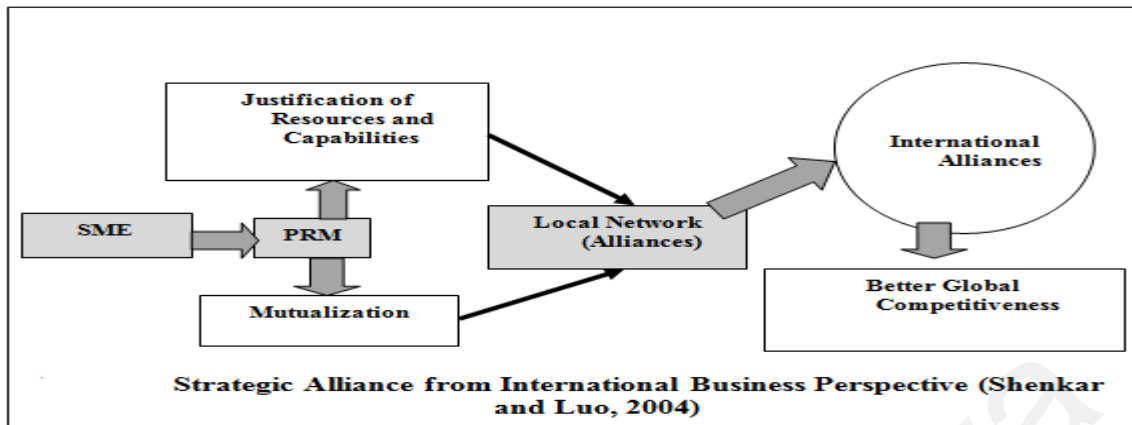


Fig 2.4: Strategic alliance from international business perspective

The figure 2.5 below summarizes the typology of strategic alliance from the theoretical review across previous mentioned dimensions.

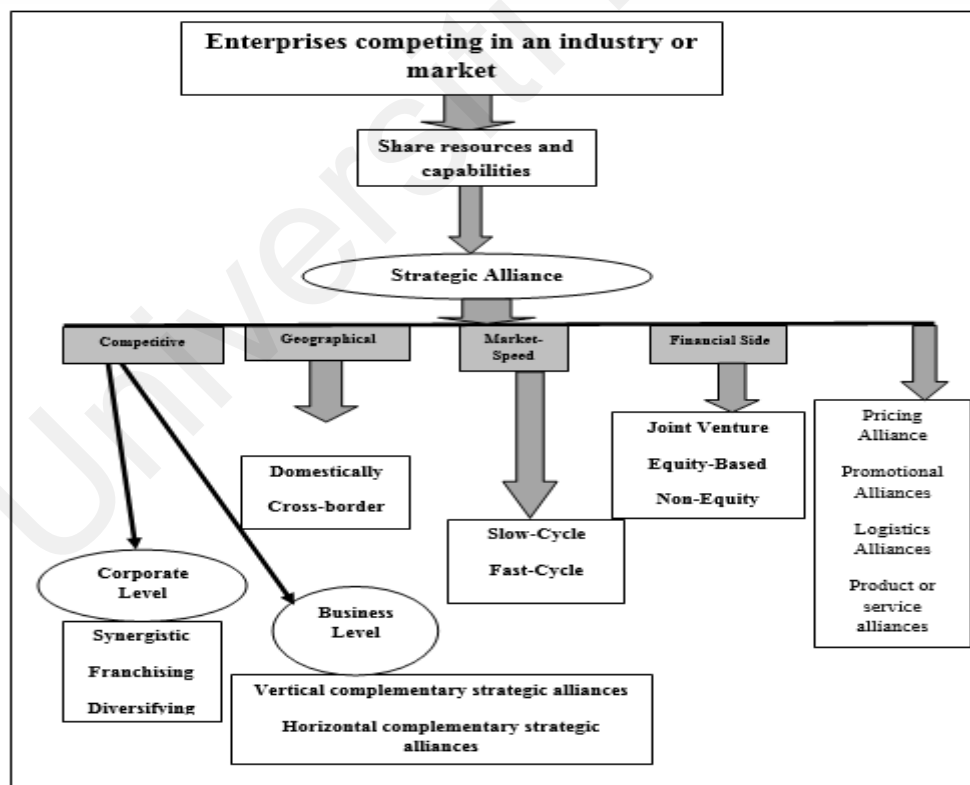


Fig 2.5: Motivation-based approach for the formation of alliances with is managerial, technological, financial, and strategic motives.

On the other hand, Zineldin and Dodourova (2005) develop a motivation-based approach for the formation of alliances, and propose an illustration that consists of four main motives. These motives are managerial, technological, financial, and strategic motives. Thus, the main motives of the formation of alliances, in spite of their strategic risks and complexities, are (Zineldin and Dodourova, 2005):

1. Financial, as motives related to cost reduction and profit generation (e.g. joint investment, reduced inventory, stable supply prices).
2. Technological, as motives that facilitate the supply process (e.g. sharing technology, joint new product development).
3. Managerial, as motives that include factors, such as interdependence, supply-base reduction and loyalty, managerial expertise, and
4. Strategic, as motives that are related to the competitive positioning of a firm (e.g. future direction, achieving core competency and market power)."

2.4.2 SMEs and Strategic Alliances

Chesbrough and Teece (1996) state that many larger organizations have been outpaced and outperformed by their smaller counterparts, however, smaller firms that benefit from a strategic alliance rarely make headlines or attract attention from the business or academic communities (Alliance Analyst, 1995).

Apart from that, many smaller firms possess the capabilities to pursue strategic competitiveness because they may be better adapted to implement certain networking strategies when compared to their large and, more organized counterparts (Hoffmann and et al., 2001). These smaller firms can afford to remain small while forming symbiotic relations

with other small or larger firms domestically, as well as internationally (Baysinger, 1981). Although alliances are usually formed between like-sized organizations, it is possible for a large firm to form an alliance with a much smaller firm, or smaller firms forming a network among them. The advantage of a large-firm small-firm alliance is improved efficiency, flexibility, and innovativeness. At the same time, this type of alliance also allows small firms to pursue potential market opportunities and have better access to larger capital resources (Hoffmann and Schlosser, 2001).

From the economy and industrial clusters, there are three classifications of alliances:

1. Between or among large firms
2. Between or among large firms and between or among SMEs
3. Between or among SMEs

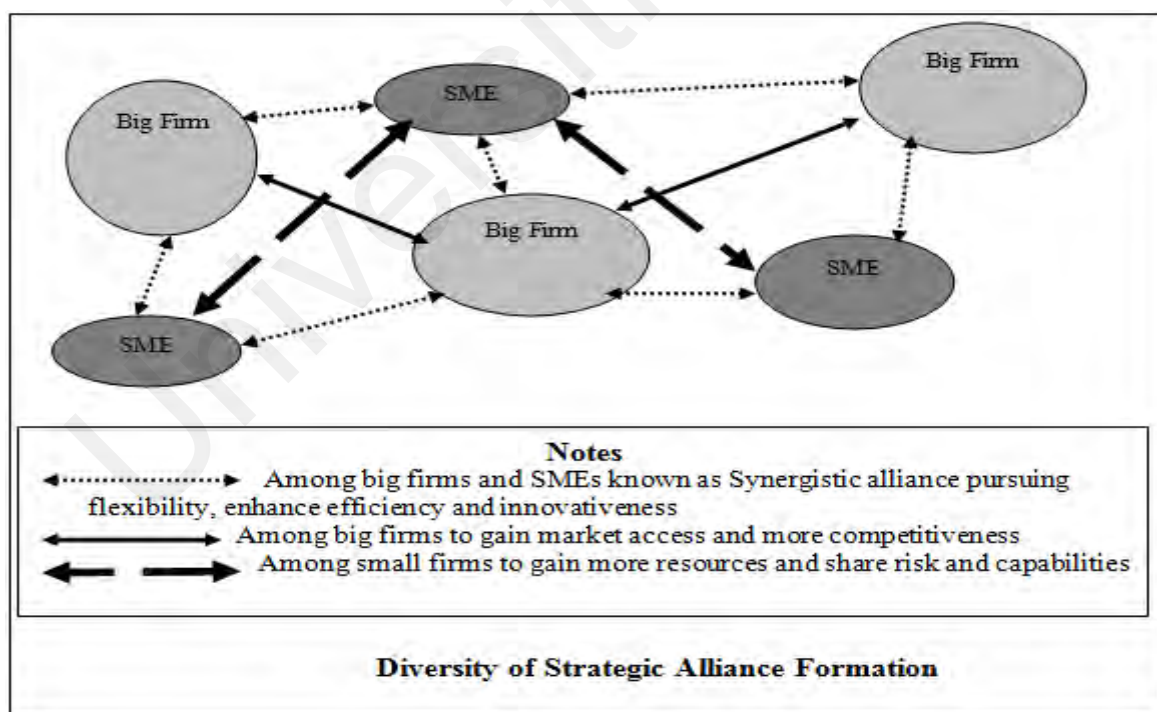


Fig 2.6: Diversity of strategic alliance formation

SMEs are generally weaker and have access to fewer resources compared to their larger counterparts (Das and Teng, 2000, 2003). This makes forming alliances with suppliers, complementary resource providers and marketing agencies (customer relationship allies) a necessary strategic move, as it augments the strength of these smaller SMEs while complementing its lack of resources (Das and He, 2006).

From another point of view, SMEs and other smaller enterprises are thought to be a more adaptable, flexible, learning and innovative form of entrepreneurial firms. This perception allows SMEs to better develop additional resources so that the two sets of competitive factors can be raised over a strategic alliance among SMEs, or have the SMEs and big firms as intrinsic factors and alliance-making factors (Das and He, 2006)

Additionally, despite the fact that environmental aspects or factors could influence alliance motives, existing studies shows that firm-level aspects will likely influence alliance formation and management (Jiang et al., 2010). These types of attributes affect alliance formation simply because they affect managers' cognitive biases that in turn affect the quantity and also the forms of information and facts used in generating strategic decisions (Daft et al., 1988).

Whenever an environmental shock is experienced, previously considered environmental risks and uncertainties are expected to intensify markedly (Meyer et al., 1990). However, because of personal differences, administrators across diverse companies are less likely to recognize these types of changes in a collective manner (Miller & Friesen, 1982). One variable which has been proven to impact a crucial manager's perceptions and also the interpretations of the external environment is a firm's strategic posture (Dickson & Weaver , 1997), and this can vary from entrepreneurial, known by risk taking in the dealing with uncertainty, to risk aversion conservative (Covin et al., 1991). The willingness to accept risks or even apply a proactive strategy in the face of uncertainty is possibly not related to applying naturally risky

conditions but alternatively could be related to perceiving opportunities where those with lesser entrepreneurial orientations notice higher uncertainty (Palich et al., 1995). Administrators with more entrepreneurial strategic postures are as a result, expected to better understand the effects of the perceived uncertainty compared to those that have less entrepreneurial postures and experiences (Marino, L. D., 2008).

In terms of alliance use, research has shown that SMEs with higher entrepreneurial orientations are more likely to form alliances and that suggests that managers in these firms tend to focus more on alliance benefits rather than perceived risks (Marino et al., 2002). Following an environmental shock, one particular important benefit alliances can provide is to broaden the options in terms of products, technologies, or skills that will allow firms to better adjust to an uncertain future dealing with environmental situations (Kogut, 1991). In an endorsement, Marino (2008) believes that more entrepreneurial firms, in such a situation, would generally pursue more and broader alliances.

This study is consistent with its call for empirical research into the "market and entrepreneurial orientation underpinning strategic alliances," as it investigates the roles of various organization's orientations and willingness to cooperate with other firms in the future, and how the degrees of internationalization affects its alliance choices. It also emphasizes the role of the market and entrepreneurial orientations of a firm in the emergence of strategic alliances, along with the company's desire to enter a global market.

2.5 Environmental Dynamism

A challenge in strategic management is the fitting of a firm's internal resources with its outside environment (Andrews, 1971). With regard to this approach, the most essential contingent variable is environmental dynamism, which explains the rate of change, and its

unpredictability within the context of a firm's external environment (Dess & Beard, 1984). Dynamic environments are described by changes in technology, changes in consumer choices, or even changes in products or services demand or supply of materials (Jansen et al., 2006). Environmental dynamism is a firm's competence to adapt to or balance unfolding conditions (Hoffmann et al., 2001), and it is the dynamic capability to take advantage of new opportunities and stay away from new threats (Chen et al., 2009). Managerial incompetence to supervise this kind of environmental alteration can lead to market failure (Hannan, Polos, & Carroll, 2003). Global environments are sufficiently more uncertain compared to local ones, particularly if the business has little expertise in the environment concerned (Luo, 2007 and Muhlbacher et al., 2006). Adapting to and stabilizing these kinds of instabilities determines an internationalizing firm's survival in the markets to a large degree (Kogut, 1988). The literature shows that environmental dynamism, particularly those typified by rapid changes and in a constant state of crisis, heavily influences the actions of a majority of companies (Hao Jiao et al. 2011). Environmental dynamism contemplates both the rate and unpredictability of change in an industry (Wu & Lin, 2010).

According to Jaworski and Kohli, (1993) and Mu (2011), environmental dynamism is defined as the speed of the rate of change in markets and technologies related to uncertainty or unpredictability of the external environment.

In fact, Environmental dynamism describes the rate and unpredictability of changes in a firm's external environment (Dess and Beard, 1984), and Wijnbenga and Van Witteloostuijn (2007) define environmental dynamism as the rate at which the preferences of consumers and the products of organizations changes over time. With very few exceptions, previous researchers argue that there are three dimensions that constitute the external environment of a firm, which are dynamism, complexity, and munificence (Dess & Beard, 1984). In dynamic environments, however, these preferences identify, measure, and predict key variables, to

understand the relationships among factors that cannot rationally accomplish a stated goal. Rational decisions are a comprehensive analysis of information, as well as the formulation of enduring plans, and inevitably consume valuable time. Therefore, only incremental changes, rather than comprehensive analyses, are appropriate in these environments. According to this perspective, rational decision-making approaches are most applicable in stable, rather than dynamic environments, and consistent with this perspective, studies reveal that comprehensive plans are positively related to performances in stable environments (Fredrickson, 1984), but inversely related to performances in dynamic environments (Fredrickson & Mitchell, 1984).

In addition, according to Calantone, et al., (2003) and Chandy et al., (2003), the innovation literature promotes the notion that environmental turbulence or dynamism of the business environment encourages innovation. Based on Siguaw et al., (2006) research, the logic underlying this relationship is stated by Miller et al., (1988), whose research proposes that to create and develop innovation is usually a costly procedure for which the expenses are rarely recouped. For that reason, companies in stable and secure environments have less necessity of incurring these types of expenses; while in contrast, companies in unstable environments have to innovate continuously to remain ahead of the competition in order to fulfill altering consumer needs. From this, a firm desiring to boost its own innovation output needs to be able to accommodate variability and uncertainty in its environment (Mu, J., & Di Benedetto, C. A., 2011).

SMEs in emerging markets may be vulnerable to rapidly changing environments due to the firm's lack of resources and the frequently underdeveloped institutional "safety nets" to help buffer such effects in these economies (Sawyer, 1993), though scholars do study how SME managers, in general, contend with these changes (Covin, Slevin, 1989). After environmental change, managers always try to reduce uncertainty, which result from environmental changes

(Ketchen et al., 1999). To accomplish this goal, managers choose different strategies as some concentrate their focus on their own firm to overcome external uncertainty created by environmental shocks (Tan et al., 2004). These managers, rationally, refuse to participate in cooperation strategies, such as alliances (Marino et al. 2002).

Alternately, some others with increasing uncertainty, attempt to establish actively inter-organizational strategies, such as strategic alliances (Park et al., 2002). Some emerging market research, to date, also supports this external focus to cope with uncertainty. For example, Peng and Heath (1996) state that firms in emerging markets will respond to uncertainty from major economic changes, by increasingly forming external links with other firms to gain access to critical resources and overcome the lack of institutional structures in emerging markets. Moreover, in their study of Korean SMEs, Tallman et al., (1994) find that these firms use strategic alliances to both gather information and gain access to critical resources. On the other hand, Eisenhardt et al., (1996) believe that uncertain situations may prompt firms to seek external alliances. In addition, in earlier literature, Marino, L. D., and Lohrke (2008) believe that, in environments affected by an environmental shock, the firm needs to secure necessary resources and information flows that will override their fear of relational uncertainty and will encourage them to adopt an external focus and seek alliances.

In addition, research by Hitt et al., (2004) show that one strategic response to increase uncertainty is to establish strategic alliances, which can improve chances for long-term survival by enhancing an SME's skills, augmenting resources, spreading risk, providing new market access, or enhancing reputation (Varadarajan & Cunningham, 1995). In addition, based on a study by Li (2012), the environmental dynamism has a positive effect on alliances in terms of internationalization. For this study, the focus is on dynamism, which is defined as the amount and unpredictability of changes in a customer's or a competitor's actions (Dess and Beard, 1984).

2.6. Control Variables

2.6.1. Age

Entering overseas markets or engaging in new strategies necessitates extreme challenges as well as uncertainties. Organizational and resource preparations can assist the firm's readiness to seize challenges and stay proactive along with using the creative forces within the firm (Zahra, 2003). Younger companies usually show this entrepreneurial manner of behavior, their administration structures are usually more adaptable, and the management retains a proactive mindset toward opportunity exploitation (Penrose, 1959). Consequently, younger companies could possibly be at an adaptability advantage in relation to requirements of internationalization. The 'born global' trend (Oviatt and McDougall, 1994 ; Harveston et al., 1999) shows that, since the 1990s , new firms tend to internationalize earlier in their life cycle (Zahra , Ireland , and Hitt , 2000). Some companies are global from establishment and show great global market commitment. Therefore, the importance of age in the relationship of intention to initiate strategic alliances and degree of internationalization, a firm's age is set as a control variable.

2.6.2. Size

Small enterprises are different completely from big companies, as documented by Shuman and Seeger (1986). Apart from the main difference in ownership, organizational structure, as well as processes, and administration methods, they are different in resource access for growing their business by going abroad. Dhanaraj and Beamish (2003) employ firm size as a sign of managerial and fiscal resource availability. Regarding the research by Penrose (1959), companies look for business possibilities in foreign countries if additional resources can be found. Bloodgood et al., (1996) in their research support the idea that resource availability

plays an important role in the final decision to internationalize. They found, in a sample of 61 US enterprises, that company size is correlated to the level of internationalization. Additionally, Abdul Talib, Md. Salleh (1997) highlight a few crucial assessments regarding the relationship between Iranian firm size and behavior towards internationalization. In addition, Miriam M. Wilhelm (2011) emphasizes on the role of firm size in using a strategic alliances strategy. Therefore, size in the relationship on the degree of internationalization firm's size is set as a control variable.

2.7 Chapter summary

In this chapter, the literature pertaining to the theory of strategic alliances which incorporates strategic orientations in relation to markets, entrepreneurial, and innovation contexts are reviewed. The first part of this chapter examines the three inter-related dimensions of strategic orientation including the firm's innovation orientation (IO), market orientation (MO) and entrepreneurial orientation (EO).

This chapter starts with a brief description of some specific characteristics of Iranian and Malaysian SMEs business, it then looked at the evolution of competitive advantages and degree of internationalization of these SMEs firms, next, the highlighting of the unique characteristics and merits of strategic alliance of business. Subsequently, identification of three variables to measure strategic alliances: the firm's innovation orientation (IO), market orientation (MO) and entrepreneurial orientation (EO).

An extensive discussion of the literature on the advantages of strategic alliance was in later parts of the chapter, starting with an overview of the merits of strategic alliances often seen as a collaborative effort, followed by the context of SMEs that benefit from strategic alliances (Hoffmann and Schlosser, 2001). Then presented is an overview of the market and

entrepreneurial orientation underpinning strategic alliances, followed by a description of roles of different organization's willingness to cooperate with other firms in the future, and how the degree of internationalization affects this cooperation. Furthermore, the literature on the link between strategic alliances and the degrees of internationalization of SMEs firms are explored. In the following chapter, the application of these multiple literature streams is applied to formulate the expected relationships of the variables.

CHAPTER 3

METHODOLOGY

3.1. Introduction

In any study, the research methodology is vital, as it lays down the direction of the research, in terms of a standard approach and the questions posed, and a well-structured research methodology is essential when carrying out business research. Technically, the methodology is a framework for conducting a study, and describes the stages undertaken as well as the flow of information throughout the study. This aspect, discussed in the relevant literature, allows researchers to study the issues adopted by different approaches. In this study, the research methodology is the business research model. Here, the principles outlined by Uma Sekaran (2006) and Aaker et al (2006) are used, several other publications were used to establish the methodology of this study, and the measures taken to examine these constructs are also clarified in this chapter. This study uses a fully structured across-country survey to review the associations among market orientation, entrepreneur orientation, and the innovation orientation, as well as their effects on the degrees of internationalization and the intention to form alliances between Iranian and Malaysian SMEs. There are seven steps for conducting this study:

- I.** Develop a conceptual model (cross national, Iran, Malaysia)
- II.** Hypothesis of study (for all 3 models)
- III.** Research design
- IV.** Sampling design

- V. Instrument development
- VI. Questionnaire development and
- VII. Data analysis

3.2. Conceptual Model and Hypothesis

Creswell (1994) states that a conceptual framework can certainly direct and guide research by presenting a visual outline of theoretical constructs and variables. Developing a conceptual model starts with an intensive review of the literature, that explores peer reviewed journals, books, seminar papers, as well as other sources. Next is the management of the literature and the topic, and based on the findings of this literature review, a conceptual framework can show the relationships between variables and hypotheses that can be seen from this outline of various theoretical constructs. Therefore, in this research, an intention to develop a research hypotheses linked to the literature and meeting the research objectives. To fill any research gaps this thesis proposes two conceptual models:

1. A Conceptual Model and Hypothesis for a Cross National Model for Iran and Malaysia.
2. A Conceptual Model and Hypothesis for an independent moderator role of environmental dynamism for both Iran and Malaysia.

3.2.1. Conceptual Model and Hypothesis for Cross National Model

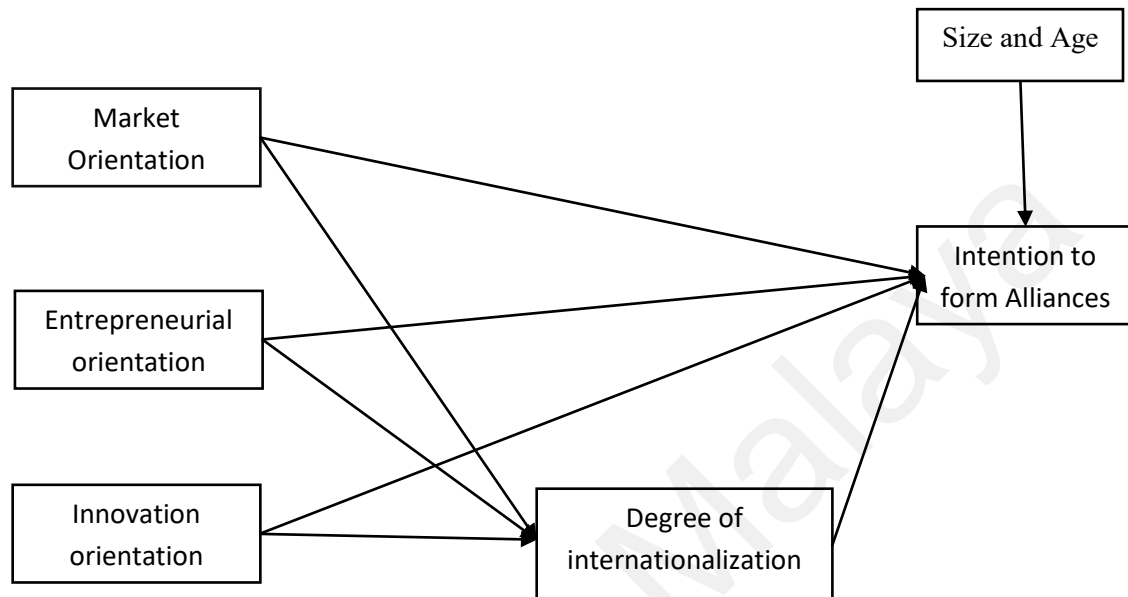


Fig 3.1: Conceptual Model and Hypothesis for Cross National Model

H1: The market orientation would positively affect the intentions to form alliances.

H2: The entrepreneurial orientation would affect favourably the intentions to form alliances.

H3: The innovation orientation would have an affirmative impact on the intentions to form alliances.

H4: The degree of internationalization is likely to influence positively the intentions to form alliances.

H5: The market orientation would positively affect the degrees of internationalization.

H6: The entrepreneurial orientation would affect favourably the degrees of internationalization.

H7: The innovation orientation would have an affirmative impact on the degrees of internationalization.

H8: The degree of internationalization mediates the association between market orientation and intentions to form alliances.

H9: The degree of internationalization mediates the link between entrepreneurial orientation and intentions to form alliances.

H10: The degree of internationalization mediates the correlation between the innovation orientation and intentions to form alliances.

3.2.2 A Conceptual Model and Hypothesis of an independent moderator role of environmental dynamism for both Iran and Malaysia.

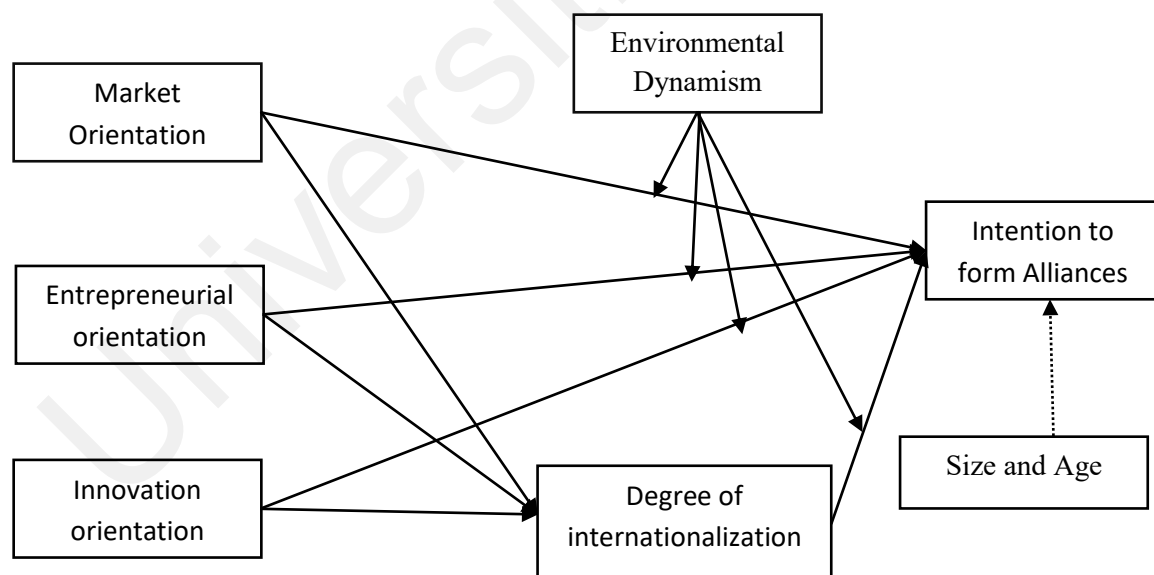


Fig 3.2: A Conceptual Model and Hypothesis of an independent moderator role of environmental dynamism for both Iran and Malaysia.

H1: The market orientation would positively affect the intentions to form alliances.

H2: The entrepreneurial orientation would affect favourably the intentions to form alliances.

H3: The innovation orientation would have an affirmative impact on the intentions to form alliances.

H4: The degree of internationalization is likely to influence positively intentions to form alliances.

H5: The market orientation would positively affect the degree of internationalization.

H6: The entrepreneurial orientation would affect favourably the degree of internationalization.

H7: The innovation orientation would have a favourable impact on the degree of internationalization.

H8: The degree of internationalization mediates the association between market orientation and intentions to form alliances.

H9: The degree of internationalization mediates the link between entrepreneurial orientation and intentions to form alliances.

H10: The degree of Internationalization mediates the correlation between the innovation orientation and intentions to form alliances.

H11: The higher degree of environmental dynamism strengthens the impact of market orientation on intentions to form alliances.

H12: The higher degree of environmental dynamism strengthens the impact of entrepreneur orientation on intentions to form alliances.

H13: The higher degree of environmental dynamism strengthens the impact of the innovation orientation on intentions to form alliances.

H14: The higher degree of environmental dynamism strengthens the impact of the degree of internationalization on intentions to form alliances.

3.3. Research Design

According to a study by Robson (2002), the research design is a general plan of answering the research questions, determining the sources of data collection, and considering the potential limitations of the research apart from identifying the reasons for selecting a certain institution or field, and then rationalizing its selection as an element for analyses. In general, the formulation of a research design is premised upon the aim of the study, the reasons behind the objective of the research, the area of the research, the degree to which the researcher is able to manage and manipulate the research, and the level of analysis (Cavana et al., 2003). The research design is presented in the research methodology objective section and the research approach and will be illustrated within next two sections as follows:

3.3.1. Research Methodology Objective

The research methodology objectives used frequently in the literature are investigative, descriptive, or illustrative for explanation (Saunders et al., 2009). Explanatory research provides insights into the research problem and analyses the issues from different perspectives (Yin, 2002; Cooper et al., 2000).

Robson (2002) states that explanatory research is a useful means of identifying events, obtaining new perspectives, making enquiries, and analysing experiences.

A descriptive research examines particular hypotheses to analyse and verify predetermined theories. This type of research provides a vivid outline of people, occasions, or circumstances (Robson, 2002). The design of descriptive research enables the researcher to analyse and determine the behavioural patterns of clients, suppliers, and managers. It establishes the causal relationship between variables and an illustrative study (Saunders et al., 2009). The importance of this type of research is to analyse circumstances or issues with the objective of elaborating the association among the variables, with experiments performed and events studied over a period of time (Cooper and Schindler, 2000). This study has two objectives, firstly, to explore and analyse the impact of strategic orientation on the degree of internationalization and intentions to form alliances among small and medium enterprises (SMEs) in the Iranian and Malaysian manufacturing sector. Secondly to assess the regulating functions of environmental vitality. Therefore, this study undertakes a descriptive approach.

3.3.2. Research Approach (Quantitative Vs. Qualitative Methods)

In business and management research, quantitative and qualitative approaches are commonly used to show the various data gathering mechanisms and data analysis methods (Cooper et al., 2000, Saunders et al., 2009), that is a questionnaire or data analysis procedure such as graphs or statistics used in as part of the quantitative method. The qualitative method meanwhile, adopts interviews or data analysis procedures, such as classifying information on a non-statistical basis, as the data collection technique.

Punch (1998) maintains that the research questions determine the approaches adopted to conduct the research. Therefore, the quantitative method used in this study assesses the hypotheses and elicits data from the questionnaire. Neuman (1997, p. 63) stated that the quantitative method is a systematic approach for merging deductive reasoning

with exact experimental observations of the behaviour patterns of individuals in order to find and verify a series of probable causative factors that could forecast broad patterns of human interactions. According to Amaratunga's et al (2002) study, quantitative research allows the scholar to determine statistically the relationship between the external and internal constructs. They are of the view that the statistical findings also show the trend of the relationship when viewed concurrently with concepts and publications. This study computes the fundamental variables in the theoretical framework as the computation of variables is an essential component of the study and a vital aspect in the design of quantitative research (Cavana et al., 2001). Though the quantitative approach is incapable of formulating concepts or provide details of clarification when compared to a qualitative enquiry. Cavana (2001) in his study and also Amaratunga et al. (2002) state that they could validate a hypotheses with a high degree of reliability. This approach has also been applied in related strategic management studies with results indicating a high degree of success. As this thesis examines casual relationships among the underlying constructs based on empirical evidence, the quantitative approach is considered most suitable. (Churchill, 1995; Clarke, 1999; Punch, 1998).

3.4. Sampling Design

Sampling design is concerned with detection and explanation of target population, sampling frame, sampling method, and sample size (Cooper and Schindler, 2000). These concepts are explained in the following section.

3.4.1 Target Population

The target population is the total units of analysis from which a researcher is able to draw deductions (Cooper and Schindler, 2000). It also can be described as the total cluster

of units of analysis required for research (Hair et al., 2007). Four factors have been identified to impact the target population these are: information on the area of interest, ease of approach to the units of analysis (individuals, companies etc.), availability of these units, and the period of time (Ibid). A unit of analysis refers to the degree of accumulation of data gathered in the ensuing stages of data analysis (Sekaran, 2003). SMEs in the manufacturing sector contribute significantly to economic growth by providing the support services to big firms (Martin, Martin, and Minnillo, 2009; Terziovski, 2010). Hence, the respondents selected for this study are the CEOs of SMEs from the manufacturing sector, with a national survey or nation-wide survey used to increase generalizability and representativeness of sample. The reason I choose CEOs is because this research relates to corporate businesses and CEOs are the decision makers in the SMEs, and thus they are the able to provide the appropriate responses. In addition, the manufacturing sector was appropriate for this study because it is one of the major contributors to the economy and the most vulnerable to globalization (Shankar Chelliah et al, 2010). Therefore, the unit of analysis in this research is the Iranian and Malaysian SMEs in the manufacturing sector. However, very few government directories provide a complete list of SME firms either in Iran or in Malaysia. In this study, the data for SMEs in Iran was obtained from the Iranian Small Industries and Industrial Parks Organization (ISIPO) and the statistical centre of Iran. As for Malaysia, the supplied data was from the SME Bank and SME Corporation Malaysia. The Table below summarizes the composition of the target population of this study:

Table 3.1: Target population

Unit of analysis	SMEs in the manufacturing sector
Unit of sampling	CEOs of SMEs in the manufacturing sector

Extent	Manufacturing SMEs listed in SME Corp in Malaysia and Manufacturing SMEs listed in ISIPO in Iran
Time	2012 for six months

According to the last published ISIPO report for Iran and SME ANNUAL REPORT 2011/12 provided by National SME Development Council for Malaysia, the number of SME firms is represented in Table 3.2

Table 3.2: Number of Manufacturing SMEs in Malaysia and Iran

	Iran (Tehran Province)	Malaysia (Selangor)
Manufacturing SMEs	89,991	39,669

3.4.2. Sampling Frame

A sampling frame is a complete record of units from which the sample is selected (Hair et al., 2007). As outlined by Sekaran (2003), the sampling frame, which provides a record of the diverse units in the population, is usually not updated periodically. However, a few inclusions or omissions would not have a major effect on the study. The design of the sampling frame is done upon obtaining the profile and contact details of SMEs in the manufacturing sector. The information on the SMEs in the Tehran province of Iran was provided by ISIPO, while the SME Bank Malaysia supplied the data for SMEs located in the state of Selangor in Malaysia.

3.4.3. Sampling Method

According to Bordens et al., (2002) Studies normally deal with a representative portion of the population, as it is difficult to study the total population. Based on their study a sample is a sub-component selected from the total population. Referring to previous studies by Bordens et al., 2002, Sekaran, 2003, Hair et al., 2007, Saunders et al., 2009, the two varied sampling approaches are:

- i. Probability or representative sampling; and
- ii. Nonprobability or judgmental sampling.

In probability sampling, the chances or the probabilities of selecting a sample from the population is equal in all cases. That is important since statistically the sample selected is representative of the population so that the research questions are structured accordingly and the necessary objectives attained. (Saunders et al., 2009). There are five key methods to choose a probability sample as shown below:

- Simple random
- Systematic
- Stratified random
- Cluster
- Multistage

Simple random sampling, sometimes called just random sampling, entails choosing arbitrarily a sample from the sampling frame using either random number tables or a computer. Systematic sampling refers to choosing the sample periodically from the sampling frame. Stratified random sampling is a variation of random sampling where a

population is divided into significant stratified groups based on certain identified characteristics. In the case of cluster sampling, which stands comparable to stratified sampling, the population is grouped into discrete clusters before sampling (Henry, 1990). Multistage sampling, often referred to as multistage cluster sampling, is an enhanced form of cluster sampling. It usually addresses issues arising from a geographically scattered population, where personal interactions are required. It is also used when it is costly and protracted to construct a sampling frame for a vast geographical region. Compared to probability sampling, nonprobability-sampling techniques exhibit similar characteristics, where the probability of any unit of analysis selected cannot be determined. (EasterlySmith et al., 2008). Five main techniques used to select a nonprobability sample are:

- Quota sampling
- Purposive or judgmental sampling
- Snowball sampling
- Self-selection sampling
- Convenience sampling

Quota sampling is a form of stratified sample where the units of analysis within the strata are selected on a non-random basis (Barnett, 1991). Interviews predominantly use non-random quota sampling. Purposive or judgmental sampling allows the researcher to exercise his discretion to choose units of analysis that would be favourable for him to respond to the research question(s) and achieve its objectives. Snowball sampling is in situations where members of the target population are difficult to identify. Self-selection sampling occurs when the researcher accepts individuals who volunteer to participate in the research. Convenience sampling (or haphazard sampling) refers to selection on a haphazard basis of

As shown in figure 3.3, the best sampling process and method for this study is cluster sampling. The logic behind this decision is that the sampling frame of this research is the manufacturing SMEs of two different countries.

3.4.4. Sample Size

Saunders et al. (2009) maintained that generalizations about the population relate directly on the size of the sample. Sampling is the process to select a certain number of cases from a set of units in the population. The selection of these units is based on criteria that produce the outcome by extrapolating the sample to the total population (Piergiorgio, 2003). The Table below indicates that based on minimum sample size, the required sample size related to population size, with a margin of 3% error, is 964 for Iran and Malaysia, respectively.

Table 3.3 Minimum sample size required Table (Saunders et al., 2009)

Population	Margin of error			
	5%	3%	2%	1%
50	44	48	49	50
100	79	91	96	99
150	108	132	141	148
200	132	168	185	196
250	151	203	226	244
300	168	234	267	291
400	196	291	343	384
500	217	340	414	475
750	254	440	571	696
1 000	278	516	706	906
2 000	322	696	1091	1655
5 000	357	879	1622	3288
10 000	370	964	1936	4899
100 000	383	1056	2345	8762
1 000 000	384	1066	2395	9513
10 000 000	384	1067	2400	9595

However, the sample size should not only be determined alone on this relationship, but also grounded on the relative dispersal of the individual (single) variables (univariate analysis), as it should be ascertained by the sort of evaluation carried out. (Piergiorgio, 2003). For the SEM (structural equation modeling) part of my study, the minimum number of cases necessary is 200. The details of the sample size for the data analysis approach are elaborated in the next chapter.

3.5. Instrument Development

The suggested theoretical model is a sample of the SMEs in two countries as mentioned earlier. In this regard, the survey methodology and in particular questionnaire was the most suitable instrument to gather data for the following five reasons. Firstly, it is intended to take into consideration the disposition and orientations of the respondent's thoughts and views and collect these responses and beliefs, approaches, and intentions (Burns, 2000; Shaughnessy et al., 1997). Secondly, a survey methodology is a valuable instrument mainly when the researcher has no need, or is unable to manage the situation (Yin, 1994). Thirdly, it is a precise measure of evaluating the data of the sample. Further, the researcher can make deductions from the outcome of responses from the sample to reflect the whole population (Creswell, 1994). Fourthly, survey methodology is the most proper method for causal research situations (Hair et al., 2003). Finally, survey methodology is beneficial because this approach is fast, relatively inexpensive, effective, and suitable for large samples (Churchill, 1995; Sigmund, 2003; Sekaran, 2000). According to Hair et al. (2003), the survey research method is the most appropriate tool when dealing with sample sizes of 200 or more.

There have been criticisms that the survey method depends on self-reported data, although it has its positive aspects (Spector, 1992). Problems are encountered when

independent and dependent variables are evaluated within the same measurement (Campbell, 1982). It raises doubts on the inferences made from systematic responses that are misrepresented, as well as the reliability and validity of the measures used in the instrument.

An absence of control over punctuality, trouble in ensuring the truthfulness of responses from selected respondents and lack of detail and deepness of data are other associated problems with survey methods. (Hair et al., 2003). Hence, the guiding principle proposed by Hair et al. (2003) were taken into consideration to ascertain accuracy, and reduce related problems. The following measures were taken to address these.

Largely proven, reliable, and valid scales adapted from highly ranked journals (all the measures adopted from A level journals) were adapted to measure the underlying constructs. The questionnaire was designed for easy comprehension and an unbiased response from the respondents. This alleviates misrepresentations in the systematic responses of the respondents. As for control over research, it is inevitable that there are limitations in any research methodology. The earlier mentioned five reasons were the strong determinants for selecting the survey method for this thesis.

This section, elaborates on the choice of scale items used to measure the hypothesis. These are the market orientation, entrepreneur orientation, innovation orientation, degree of internationalization, and the intention to form alliances and environmental dynamism. The following factors were taken into consideration when choosing the suitable items to measure these constructs. First, the items were sourced from earlier studies recognized as reflections of the strategic orientations of the SMEs. Second, this thesis encompasses items that calculate the content of each hypothesis and the degree to which they reflect the characterizations and dimensions. This is in line with Churchill's (1979)

recommendation that items with varied meaning should preferably be included, as the initial list is improved in order to derive the final measure. Third, scales employed were sourced from the literature with valid and reliable measures of corresponding constructs. In this thesis, both validity and reliability were analysed to determine that the scales were satisfactory.

This thesis uses scales derived from an assessment of the related works in this area. Table 3.4 provides a synopsis of the number, source, scale, and reliability of the items used to test each construct.

Table 3.4 Measurement model

Construct	Proposed items	Reference	Scale	Reliability
Market direction	Customer satisfaction dictates sales and marketing objectives.	Narver and Slater (1990) reused in MeunierFitzHugh and Piercy,(2011)	Likert 7 anchors from 1 = not at all, 7 = to an extreme extent	0.84
	The degree of the company's pledge to meet customer satisfaction is very often reevaluated.			
	An appreciation of the customer's requirements forms the basis of the company's strategy for competitive advantage...			
	Increased value creation for customers dictates the company is marketing strategies.			
	Customer satisfaction is measured in a systematic manner and at regular intervals.			
	After sales services are given priority.			

	Senior officials with existing and potential customers hold frequent sessions.			
	Joint sales and marketing strategies are adopted when servicing the company's intended market(s).			
	There is mutual sharing of sales and marketing resources.			
	Sales and marketing departments share free flow of, information concerning successful and unsuccessful customer experiences.			
	Sales and marketing personnel are fully aware of their contribution towards creating customer value.			
	Sales personnel of the company exchange information about competitors' strategies on a frequent basis.			
	The company reacts immediately to competitors initiatives that is detrimental to them.			
	Regular discussions are held by senior management to review the competitors' dominance and tactics.			
Entrepreneur disposition	Research and Development, technological leadership and innovation are given top priority.	Liu, Y., Li, Y., & Xue, J. (2011)	Likert 7 1 = totally disagree, 7 = totally agree	0.86
	A strong inclination for high risk, return innovative projects.			
	In addressing unforeseen developments, the company firmly assumes a proactive stance.			

	The company would undertake measures that would elicit competitor's reactions.			
	An inclination to become a market leader in initiating novel products, services or technology.			
	The company adopts a combative stance towards rivals in the market.			
Innovation process	Particular emphasis is given to innovation initiatives.	Zhou et al., (2005)	five point Likert scale (1 = strongly agree; 5=strongly disagree)	0.869
	The need for innovation to promote growth is given recognition.			
	The need for growth and use of new resources is encouraged.			
Degree of internationalization	The proportion of sales overseas to total sales.	Hsu and Preira,2008	approximate percentage (1 to 7 between zero to 100 percent)	0.763
	The proportion of foreign profits to total profits.			

	The percentage of foreign assets to total assets.			
Intention to Form Alliances	Joint venture initiatives with other small businesses.	Lore et al. 2006	Chances to form each of the types of alliances in the next year months chance for each type of alliance.	0.84
	Joint ventures with large firms.			
	Outsourcing.			
	Licensing contracts			
	Long-term contracts. (marketing, distribution, production),			
	Capital injection by other companies,			
	Partnership in technology (R&D, product)			
Environmental dynamism	Rate of marketing practice change in market	Lohrke et al.2006	Five Likert scale	0.72
	Rate of product change in market			
	The responses of competitors are predictable.			
	Rate of change in Consumer needs preferences			
	Rate of change in production system			
Firm Size	Number of full time employees	Lubatkin et al. 2006		
Firm Age	Number of years since the establishment of the business	Lubatkin et al. 2006		

3.6. Questionnaire

Many surveys utilize a method called questionnaire methodology to gather primary data (Clarke, 1999; Saunders et al., 2003). The questionnaire is essentially a set of specially designed and pre-formulated questions on a specific research topic (Sekaran, 2000). The questionnaire put to the respondents is to elicit their responses in either written form or verbal recording. The questionnaire methodology is used often to collect data from large samples (McCelland, 1994).

One of the limitations faced by the researcher in using this tool is the length of the questionnaire. It should not be too long, which is tiring, or too short which may result in collecting insufficient data. There are different perspectives explained by writers on this issue. Frazer and Lawley (2000) are of the view that a questionnaire that is twelve pages in length is adequate, whilst Zikmund (2003, p. 214) reckons that generally, it should not be more than six pages. The questionnaire used in this thesis is less than six pages and is within the recommended length. The questions are clearly numbered and spaced to reduce eyestrain. Furthermore, considerable care was taken to ensure that the questions are in a logical sequence. Proper sequencing is imperative to overcome incomplete response to the questions, which could affect the validity of the analysis (Kinnear and Taylor, 1996). The flow of topics was another criterion given serious attention in the questionnaire's design. The topics were logically sequential, ensuring that the questions were comprehensive in dealing with each topic before moving on and simultaneously adhering to the objective of the research (Tull et al., 1990).

The language and terminology used in this questionnaire was for communication and comprehension by all respondents, including those with minimal formal education. The questions were clearly defined, easy to answer, unbiased, contextual and appropriate to

SMEs. Authors such as Janes (1999), Frazer and Lawley (2000) were univocal in their opinion that respondents of a questionnaire should be able to read and comprehend the questions. This would motivate the respondents to answer fully the questionnaires.

The draft questionnaire was initially put through a test process by submitting it to a number of experts in the field for their comments and suggestions, in an effort to identify problems. This process aids in the process to minimize vagueness and enhance the clarity of terms expressed in the questionnaire. This would ensure validity and the reliability of research (Churchill, 1995; Frazer et al., 2000). Much effort was applied by the scholars to develop an attractive instrument, with clear and easy to follow instructions, which could contribute to an increased reply rate (Janes, 2001), and reduce errors of measurements (Sanchez, 1992). As the survey was conducted both for SMEs in Iran and Malaysia, it was necessary that the questionnaires be made available in two languages, Farsi and English. This facilitated the respondents to exercise their prerogative of answering in the language of their choice (see Appendix B).

To obtain better participation than usual in the survey, a necessary covering letter was provided and it was attached to the first page of the questionnaire and invited respondents to contribute to the survey (see Appendix A.1). The covering letter would motivate participants to answer all of the questions and submit the completed questionnaire to the researcher (Lukas et al., 2004; Churchill, 1995). Apart from introducing the study and its objectives, the covering letter provided assurances upholding the confidentiality of responses and safeguarding anonymity of the respondents. It also provided other pertinent details such as the researcher's contact particulars.

3.6.1 Questionnaire Translation and Back-to-back Translation

Base on nature of this study as a cross-national study some of the respondents of this questionnaire speak a language other than English (Persian/Farsi in Iran). Therefore, because we had some non-English speakers in our respondents, translation and back-to-back translation of the instrument was necessary. This process is crucial in such research as different cultural dispositions could dictate the perspective of the responses, which could lead to variances and complications of the findings. Authors on methodology such as Malhotra et al. (1996), Temple (1997), Frazer et al., (2000), Brislin et al. (1973), Mallinckrodt and Wang (2004), have often highlighted the issue of cross-cultural communication. Adopted was a two-step approach to translate this questionnaire. Development of the original questionnaire was in English. In addition, a qualified native Iranian translator, who is proficient in both languages, translated as a first step in the translation process, the original text in English into Farsi. After that step was completed, another accredited native Farsi speaking translator who is fluent in both the languages, translated back the Farsi version into English. Through this two-step approach, it was possible to detect variances or differences in the questionnaire translations. If there were any variance or differences, actions to adjust for conflicting responses was by modifying the questions to ensure similarity between the two versions. As pointed out by Malhotra et al. (1996), it is an important criteria to ensure that the translators are proficient in both languages and accustomed to the two cultures, as direct translation of particular words and phrases could lead to errors. In order to ensure that both the translated versions are similar in the respective languages, a pretesting of the survey prior to the actual survey was performed (Sin et al., 1999; Salciuviene et al., 2005).

3.6.2. Reliability

To ensure reliability of data in any survey and the data collection method and analysis, methods are scrutinized thoroughly to ensure the findings are consistent. Reliability, defined as the degree to which methods to gather data or techniques of evaluation will generate similar outcomes (Saunders et al., 2009), and a measurement is considered reliable when the predictions generated are consistent to reflect unchanging social situations, regardless of differences in techniques and probability of chance. “A reliable measure is stable and devoid of the effects of random errors” (Hunter and Brewer, 1989). Usually researchers rely on two common approaches to enhance the reliability of the instrument, and both approaches require internal consistency of measurement. The first approach is based on calculating Cronbach's Alpha, which determines to what extent the items in a cluster positively interrelate with each other (Sekaran, 2003). Generally, it is acknowledged that reliabilities below 0.60 are considered to be poor, those in the 0.70 range are acceptable, and those over 0.80 as good (Sekaran (2003).

The second method revolves assessing the composite reliability derived from SEM analysis. This method measures the internal consistency and thus is equal to Cronbach's coefficient Alpha (Sweeney, 2009). Recognized as a better choice is composite reliability according to Shook et al. (2004), as this approach considers the standardized loadings and measurement error for each item over the coefficient alpha. Coefficient alpha has limitations, as for instance, it assumes all items have equal distribution to reliability. However, in this research, both criteria determine the extent of reliability.

3.6.3. Validity

Researchers are also concerned with the validity of the research. Validity of the questionnaire is determined by using measurement techniques to compute selected items (Sekaran, 2003). Most studies rely on two types of validity reporting, namely face or content validity and construct validity.

3.6.3.1. Face or Content Validity

Face validity is illustrated as the degree to which a technique computes the selected items to be measured (Peat et al., 2002). When the face validity of a questionnaire is high, it enhances usage among respondents as it is “easy to use and conducive for reading with clear and user friendly response formats” (Netemeyer et al., 2003). Content validity is determined through a priori theoretical units of analysis created and an evaluation process. It ensures that all directly related items to the content area are adequately encompassed by the target construct. Content validity ensures that from the initial phase of scale development, the set of units generated are reflections of the main hypothesis. A content validity measure develops at the preliminary stage of scale explanation by creating a set of units and subsequent evaluations by lay people or experts or both. (Netemeyer et al., 2003). This study adopts Cooper and Schindler’s (2000) approach to examine content validity. This approach involves scanning the literature to identify current scales and undertaking interviews with experts in the field, including academics and industry leaders. In addition, the questionnaire would be submitted to at least three experts in the field of study, to appraise whether the questionnaire is lucid, user friendly, conducive for reading and with suitable response formats.

3.6.3.2. Construct Validity

Construct validity explores the magnitude to which a selected measure corresponds to other similar measures with theoretically based hypotheses constructs that are being assessed (Carmines et al., 1979). It is often necessary to determine construct validity by conducting three tests, namely convergent validity, discriminant validity, and nomological validity.

Convergent validity is considered to be present when a pool of items to compute the same construct are interrelated at least in some moderate magnitude (Kline, 2010). It could also be determined by verifying the importance and strength of correlation among the items in the same construct (Netemeyer et al., 2003). Convergent and discriminant validity could also be determined by using a statistical method – called confirmatory factor analysis. According to Jiang et al., (2009) convergent validity examines factor loadings and the average variance extracted (AVE). As an initial step, factor loadings of more than 0.50 are acceptable. In the subsequent step, the AVE would be determined. The AVE calculates the overall degree variance in the indicators, accounted for by the latent construct. A threshold level of 50% normally indicates an acceptable AVE (Bagozzi and Yi, 1988). These general criteria are reliable in order to examine the convergent validity of constructs.

A pool of items assumed to calculate various constructs exhibit discriminant validity if their interrelationships are not significantly high (Kline, 2010). In other words, discriminant validity requires that a variable should not correspond significantly with other variables from which it is expected to differ (Netemeyer et al., 2003). Discriminant validity is evaluated using a general test as proposed by Bagozzi and Yi (1988). They recommended that to obtain discriminant validity the AVE for each individual construct should be more than the squared correlation of that construct with other constructs (Bagozzi and Yi, 1988, Fornell and Larcker, 1981, Jiang and Li, 2009).

Nomological validity pertains to the degree to which the measure fits rightfully into a network of relationships or a “nomological network”. Nomological validation examines the theoretical association between various constructs and the statistical relationship between measures of those constructs. According to Netemeyer et al., (2003) SEM can be engaged to determine nomological validity.

3.6.4. Pilot Study

To enhance this study, developed and tested was a validity pilot study. The content validity shows how effectively the content of the scale or instrument is able to measure what it intends to measure. This means the measurement items answer the research questions and meet the standards, however, to ensure validity of the contents, an independent variable should include all dimensions that explain a characteristic (Cooper and Schindler, 2006; Malhotra, 2007).

To enhance the content validity of the research instrument, the questionnaire was submitted to five scholars in the universities in the United States, Iran and Europe. Three of them offered useful comments to modify the instrument and confirmed the overall validity of the scale. Following this the preliminary questionnaire was corrected and a pilot study was carried out by sending the questionnaire to a group of managers, and they were asked to review the weaknesses of the questionnaire, correct it, and distribute to all the remaining sample firms. This minimized the ambiguity of the questions. Given the target population of the study is limited and a pilot study requires more time, it was only conducted among a limited number of managers (30 for Iran and 25 for Malaysia). Usually a minimum of ten respondents is deemed sufficient for a pilot study (Fink, 2003; Saunders et al., 2011). Based on the responses, as shown in tables 3.5, 3.6 and 3.7, all the reliabilities are of acceptable levels and above the threshold 0.6.

Table 3.5 Iran pilot results

Construct (IRAN 30 cases)	Number of items	Cronbach's Alpha
Entrepreneur Orientation	6	0.924
Market Orientation	14	0.930
Innovation Orientation	3	0.837
Intention to form Alliances	7	0.608
Degree of Internationalization	3	0.934
Environmental Dynamism	5	0.847

Table 3.6 Malaysia pilot results

Construct (MALAYSIA 25 cases)	Number of items	Cronbach's Alpha
Entrepreneur Orientation	6	0.924
Market Orientation	14	0.945
Innovation Orientation	3	0.922
Intention to form Alliances	7	0.914
Degree of Internationalization	3	0.890
Environmental Dynamism	5	0.771

Table 3.7 cross-nation pilot result for items to total correlation

item	Iran (item to total correlation)	Malaysia (item to total correlation)
EO1	.748	.836
EO2	.749	.770
EO3	.808	.762
EO4	.799	.824
EO5	.846	.862
EO6	.778	.632
MO1	.543	.364
MO2	.499	.775
MO3	.661	.732
MO4	.735	.736
MO5	.653	.843
MO6	.561	.722
MO7	.512	.762
MO8	.625	.614
MO9	.773	.699
MO10	.815	.880

MO11	.707	.767
MO12	.784	.743
MO13	.787	.753
MO14	.777	.767
INO1	.632	.840
INO2	.749	.917
INO3	.705	.804
DOI1	.808	.796
DOI2	.954	.800
DOI3	.888	.779
IA1	.586	.660
IA2	.642	.653
IA3	.576	.890
IA4	.501	.902
IA5	.387	.820
IA6	-.291	.594
IA7	.098	.767
ED1	.690	.522
ED2	.748	.527
ED3	.571	.570
ED4	.568	.531
ED5	.708	.562

3.6.5. Data Analysis

To undertake the initial evaluation of data, the Statistical Package for Social Science (SPSS) version 17.0 is used. SPSS would compute frequencies, means, and standard deviations as well as generate base line data about the sample descriptive statistics. This provides an overall perspective of the data gathered and the representativeness of the sample. Subsequently SEM would be applied to review the research model and the hypotheses as highlighted in the second chapter.

3.6.5.1. SEM

SEM is defined as a “multivariate technique combining aspects of factor analysis and multiple regression that enables researcher to simultaneously examine a series of interrelated

dependence relationships among the measured variables and latent constructs as well as among several latent constructs” (Hair et al., 2007).

In the past twenty years, SEM had wide use in management research as an analytical tool (Williams et al., 2009). This study adopts the two-stage approach expounded by Anderson and Gerbing (1982) to examine SEM. The model building processes in this approach comprise the evaluation of two conceptually varied models (Anderson and Gerbing, 1988, 1982), where a measurement model (confirmatory factor analysis model) illustrates the association between observed variables and their underlying latent constructs, with inter-correlated latent variables. The second model, known as a confirmatory structural model, allocates the causal association of the latent variables. The flow chart depicting these two stages of the SEM is below.

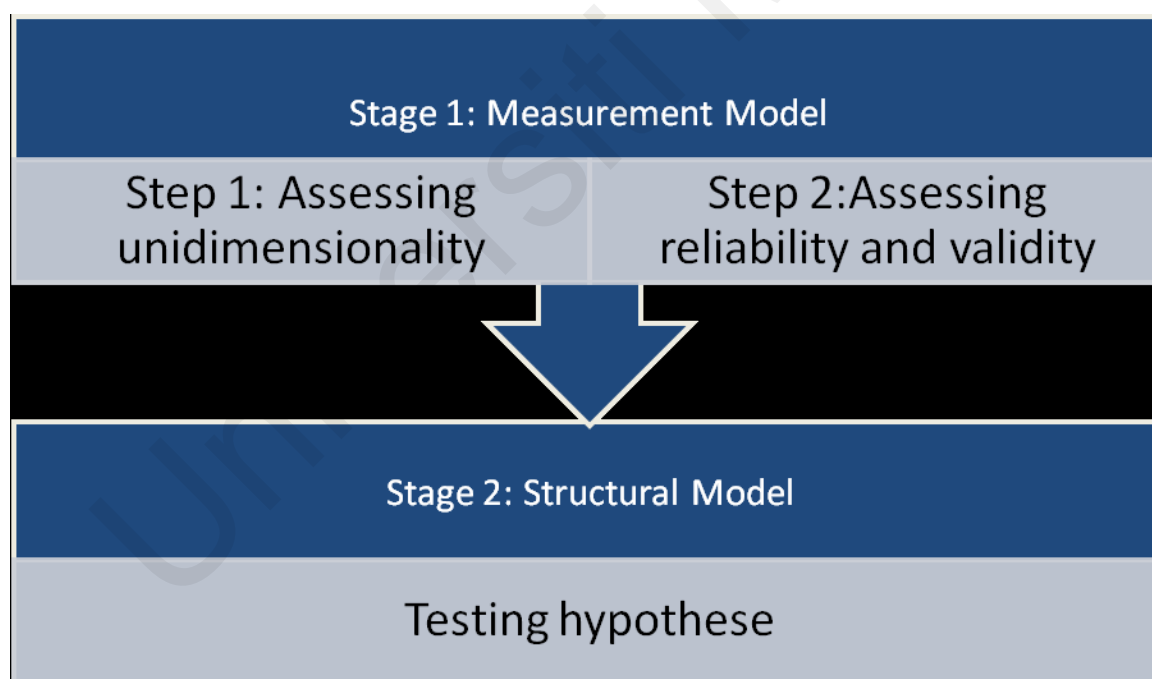


Figure 3.4 Process of data analysis based on two-stage approach

Stage 1 depicts the measurement model, which comprise two steps. In step 1, assessment of unidimensionality is managed while in step 2 the reliability and validity of constructs would be determined by using the CFA.

Unidimensionality is defined as “an assumption underlying the calculation of reliability and is demonstrated when the indicators of a construct have acceptable fit on a single factor (one dimensional) model” (Hair et al., 2007).

This is followed stage 2, which is the structural model. In this model, specified are the paths or causal relationships between the underlying theoretical latent constructs since our sample is from two different clusters, evaluation of multi-group analysis is carried out as well.

It is a required to perform a multi group analysis for the measurement model before undertaking the multi group analysis for the path model. . The purpose of the measurement model is to verify that the measurement variables are written to accurately reflect the latent constructs. Thus, in exploring the country differences in the path model, it is imperative to initially examine whether the factor structure as represented by the posited measurement model is similar for both Iran and Malaysia. If the analysis indicates that there are no major variances in regression weights (i.e., factor loadings) between Iran and Malaysia, then the application and use of the same regression weights is possible for both countries. This would also enhance the efficiency in the determination of regression weights, besides simplifying estimation of the model fit. On the other hand, if the analysis shows significant differences in the regression weights between the two countries, then a review of the structural path model to take into account these differences is necessary.

The differences in the regression weights (factor loadings) for this measurement model for both the countries are verifiable by undertaking the following steps:

- (1) Construct individual but similar measurement models for the samples for Iran and Malaysia
- (2) Base these upon respective data sets link of the Iran and Malaysia models
- (3) Establish an invariant model, where it is postulated that Iran and Malaysia share the same regression weights and a variant models, where it is assumed that Iran and Malaysia have different regression weights, that could be directly compared to their model fit, and
- (4) Execute the Critical Ratio test to validate the differences in the regression weights for Iran and Malaysia.

The assumption validated is that the measurement model holds for Iran as well as Malaysia. The underlying assumption of this hypothesis is that the factor pattern (i.e., the regression weights) is similar for both groups (group invariant model). It requires that each regression weight for the Iranian sample is similar to the corresponding regression weight for the Malaysian sample. However, it is not necessary for the unique variances for Iran and Malaysia to be group invariant. The two groups might indicate differences in the common factor variances and covariance. The hypothesis of group invariant regression weights is based upon the rationale that, though it could be reasonable to assume that the observed and unobserved variables have different variances and co-variances between Iran and Malaysia, it is probable that the two groups might share the same regression weights.

The Critical Ratio Test for country differences among the regression weights (the pair wise comparison CR test) verified using the regression weights derived from the variant group model. As the regression weights from the invariant group model are adjusted to be equivalent, any attempt to compare them would be futile.

The measurement model for Iran and Malaysia firstly, has to be confirmed before verifying and comparing the suitability of the structural path model proposed for these two groups. The factor structure validated in the measurement model would constitute the basis for the path model, as the effect of the multi-group analysis on this model would then be determined simultaneously for both the Iranian and Malaysian samples. It is necessary to authenticate whether the pattern of structural relationships postulated in the path model corresponds to similar dynamics for Iran and Malaysia.

The determination of country differences for this path model is by undertaking the following steps:

- (1) Construct individual but similar path models for the Iranian and Malaysian samples,
- (2) Connect the Iranian and Malaysian models to their respective data sets,
- (3) Establish an invariant path model, in which it is postulated that Iran and Malaysia share the same path coefficients and a variant path model, in which it is assumed that Iran and Malaysia have different path coefficients that could be directly compared to their model fit, and
- (4) Execute the Critical Ratio Test to validate for country differences in the path coefficients.

There is a requirement of validating the assumption that the path model holds for both Iran and Malaysia. As such, it is fundamental that the pattern of relationships (i.e., the path coefficients) is similar for both groups. This stipulates that each path coefficient for the Iranian group should be similar to the comparable path coefficient for the Malaysian group. Conversely, there is no expectation that the unique variances for Iran and Malaysia are to be group invariant. It is possible that the common factor variances and co variances could also vary in both the groups. It is logical to presume that in the samples between the two

countries, the observed and unobserved variables have different variances, co-variances, and regression weights. This is the implicit rationale underlying the hypothesis of group invariant path coefficients. However, if an observation shows that the path coefficients are similar for Iran and Malaysia, then use of the same path coefficients for both groups is permitted. This will ease the prediction of endogenous variables from the model's exogenous variables. The critical ratio (C.R.) test is an acceptable tool to verify country differences among path coefficients, for instance the difference between the Iranian and Malaysian path coefficients. It is also plausible to compare directly the fit of the two competing models. The Nested Model Comparison statistics could be employed to derive the chi-square difference value for the two models and it is considered to be significant at the 0.05 level ($p > 0.05$). From this, observed is a valid conclusion that the two models do not differ significantly in their goodness of fit.

The Critical Ratio test for country differences among the path coefficients ought to be tested, and the parallel comparison C.R. test executed on the path coefficients derived from the variant group model. This is because if the path coefficients from the invariant group model are adjusted to be similar and any attempt to compare is futile. .

3.6.5.2. Partial Least Squares (PLS)

The concept of partial least squares was postulated by Herman Wold in his paper on principal component analysis (Wold, 1966) where the NILES (Nonlinear Iterative Least Squares) algorithm was introduced. This algorithm (and its extension to canonical correlation analysis and to specific situations with three or more blocks) was later named NIPALS (Nonlinear Iterative Partial Least Squares) (Wold, 1973, 1975). The concept of the generalized PLS approach to path models with latent variables (LVs) was published by Wold, in 1979, while references on the PLS algorithm are contained in Wold (1982, 1985).

The PLS approach is considered to be a structural equation model, as it is an appropriate and suitable tool especially when used in the early stages of formulating theories and predicting applications. Initially the PLS approach was found to be an appropriate tool for predictive causal analyses of situations that are highly complex and for which there is no firmly established theoretical model (Joreskog & Wold, 1982). The specific characteristics of the model are that the PLS approach is a nonlinear iterative method in which PLS are used to minimize the residual variances of theoretical and observed variables under a fixed-point constraint (Croutsche, 2009). It could be used to model non recursive relations via an estimation process in which the latent variables are regressed both in terms of their respective indicators and among themselves.

Three salient methodological factors (Hulland, 1999) should be considered when undertaking evaluation of PLS models are:

1. The characteristics of the relationship among the measures and the constructs
2. The reliability and validity of the measures and
3. The final model.

It is necessary to examine both the measurement model, which correlates the latent variables to the indicators, and the structural model, which connects the latent variables to each other to verify the last two elements mentioned above.

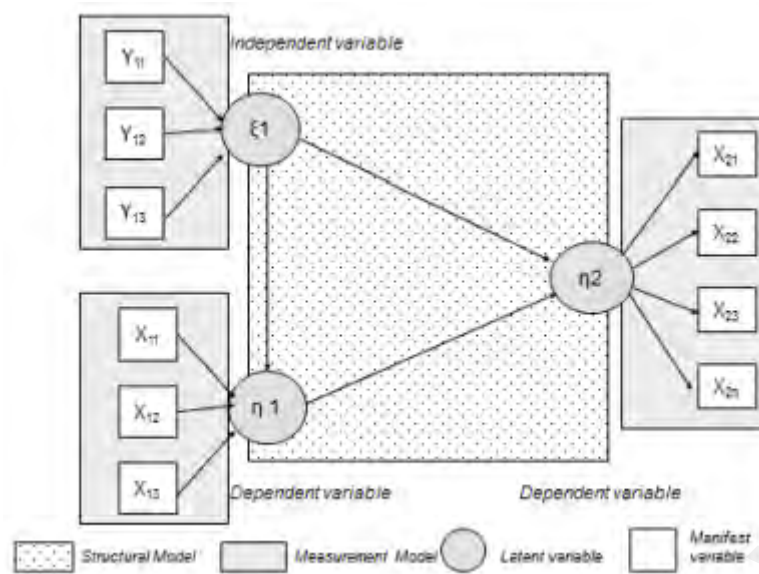


Figure 3.5 PLS example

Some of the pertinent factors considered in the evaluation of measurement models, also known as “outer models”, are internal consistency, the unidimensionality of the constructs, the convergent validity of the measures associated with the constructs and their discriminant validity.

Cronbach’s alpha or composite reliability could be used to ascertain the reliability of internal consistency (Chin, 1998), both of which vary between 0 and 1. It is normally acceptable that a value of 0.7 indicates good reliability (Tenenhaus, et al., 2005).

The unidimensionality of a block could be established by examining the eigenvalues generated by a principal components analysis where the first eigenvalue must be greater than 1 and the second eigenvalue must be less than 1 (or much smaller than the first). In addition, the correlation between a manifest variable and what the latent variable means to measure must be stronger than the correlation between the manifest variable and the other variables.

The convergent validity of the measures is determined by examining the correlations (or loadings) of the measures with their respective constructs, although this is not pertinent in the case of formative constructs. It is common practice among researchers to adopt the informal rule that the correlation coefficient must be greater than 0.7, which implies that the variance shared between the construct and its measure is greater than the error of the variance. Therefore, it could be concluded that more than 50% of the variance in the observed variable is due to its construction. On the other hand, if the resultant correlation is less than 0.7, caution is needed in interpreting the results. A low correlation could arise due to a poorly formulated item (low reliability), an inappropriate item (low content validity) or an inappropriate transfer of an item from one context to another. As a rule, items with correlations of less than 0.4 or 0.5 should not be included and eliminated. If the results generate a negative correlation, it might denote that the manifest variable is inadequate to measure the latent variable and must therefore not use and removed from the model. Furthermore, it is possible to crosscheck the correlation of each item and to ascertain whether a strong correlation exists with its construct compared with the other constructs in the model.

Discriminant validity is an established and conventional methodology, and considered to complement convergent validity. It demonstrates the magnitude to which the measures of a construct differ from that of another construct in the model. When the PLS approach is used, it would indicate that the amount of variance a construct shares with its own measures would be greater than the amount of variance it shares with other constructs in the same model. Hence, the conclusion is that although the latent variables are inter-correlated, they measure different concepts and are able to distinguish between them. Fornell and Larcker (1981) favour the use of Average Variance Extracted (AVE) to verify discriminant validity. Also known as mean communality (H^2), where AVE is the variance shared between a

construct and its measures. The AVE should have a value greater than or equal to 0.5 (Chin, 1998), and this measure should be greater than the variance shared between the construct and the other constructs of the model (that is, the square of the correlation coefficient between two constructs). In the case of the PLS approach, this means analysing a correlation matrix where the square of the correlations between the constructs is in one part of the matrix, and the average variance for each construct is on the diagonal of the matrix and so it is possible to determine discriminant validity. Unsatisfactory discriminant validity infers that the constructs and their measures cannot be adequately discriminated, so it is inappropriate to perceive them as distinct and separate theoretical entities.

Evaluation of structural models, also known as “inner models”, are based on the predictive relevance of the latent variables, that is, their nomological validity. This is determined by analysing multiple R^2 and Stone Geyser’s Q^2 coefficients. The multiple R^2 has three thresholds that need consideration in any research (Croutsche, 2002). When the threshold of R^2 is greater than 0.1, the model is significant; if it is between 0.05 and 0.1, the model is tangent; and if it is below 0.05, the model is not significant. R^2 is used to show the contribution of each explanatory variable to predict the dependent variable; consequently R^2 values are examined for dependent constructs. As changes in R^2 are explored to determine if an independent latent variable has substantial impact (Chin, 1998: 316317), it is important that researchers report R^2 values for each of the model’s dependent constructs.

When researchers faced with a dilemma whether or not to use the PLS structural equations method, they could rely on the following criteria to make decisions. Find a large number of indicators per latent variable (which would impose an excessively large sample size for covariance methods), followed by formative constructs and, finally, sample size (Haeinlein & Kaplan, 2004). Hsu et al. (2006) added the exploratory nature of the study to this list, and these criteria are summarized in fig 3.6 below:

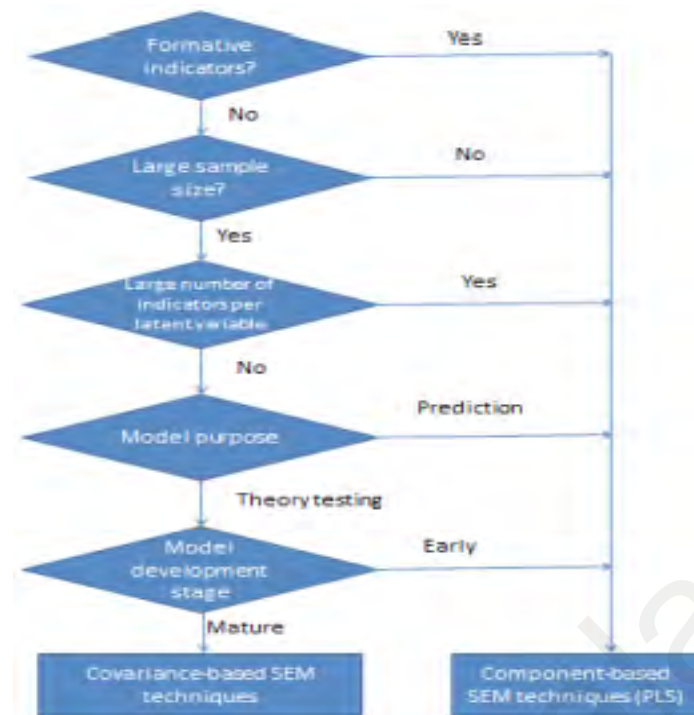


Fig 3.6: PLS structural equations method in which relies on the criteria's to make decisions. Source: Hsu et al. (2006:369)

PLS and covariance based SEM could be viewed as complementary tools, with covariance based SEM being used in a confirmatory role. In this case, the exploratory nature of PLS could be used to reveal theoretical relationships between latent variables, and then covariance based SEM used to confirm (or reject) these. Croutsche (2002) argues that the use of covariance based SEM as a complementary approach to PLS enables the researcher to analyse the correlation matrix of the latent variables (produced by the PLS analysis), and then to “estimate the values of the dependence coefficients that are tested using a recursive model with PLS. In this case, the correlation matrix of the latent variables is exact, whereas the dependence coefficients are biased. Finally, the values of the PLS and covariance based SEM dependence coefficients are compared. The relations estimated by covariance based SEM is generally higher than those obtained by PLS.

3.7. Chapter summary

This chapter leverages the multiple literature streams to develop a theoretical framework of family influence, innovation, and business performance. The ten hypotheses developed use the stated theoretical framework and previous literature. The hypotheses describe relationships among family influence, innovation, and business performance in three steps. First, the direct effect of innovation on performance of family businesses is of major interest. Second, the direct effect of family influence on business performance is discussed, as well as its mediating role of innovation. Then, the hypotheses look at the intervening effects of innovation between family influences and business performance. The links and descriptions among the research questions and hypotheses are summarized and stated in Table 3.1, and finally, the control variables are identified and discussed. In the following chapter, the research design and methodology used to answer the research questions are discussed.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

The previous chapter detailed the research methodology adopted to test the proposed theoretical model, and to answer the research questions. The purpose of this chapter is to present the results of the data analysis and to tests hypotheses. Following the introduction, the second section presents preparation of the data, including editing and coding prior to conducting analysis. This is followed by a section discussing the procedures used for screening the data. The fourth section discusses the response rate, and the fifth section describes sample characteristics. This is followed by two sections that discuss the two-stage structural model used in analyzing the data. The first stage of the measurement model is presented in section seven, whilst section eight presents the structural model. Section nine presents the final results related to the testing of the hypotheses, and ad-hoc tests are presented in section ten.

4.2 Data Editing and Coding

Following the collecting of data from the SME's, editing of the data was undertaken in order to ensure the lack of omissions, to ensure completeness, and consistency of the data. Editing is considered as a part of the data processing and analysis stages (Zikmund, 2003). Following the recommendation of Sekaran (2000), this thesis includes all respondents in the analysis who completed at least 75% of the questionnaire, whilst those with more than 25% unanswered questions are excluded (i.e. Iran 21 and 15 Malaysia

surveys were excluded). Any missing data has been considered as missing values (Kinner and Taylor, 1996; Sekaran, 2000), and discussed below.

Coding was used to assign numbers to each answer (Malhotra, 1996) and allows the transference of data from the questionnaire to SPSS. Such procedures can be undertaken either before the questionnaire is answered (pre-coding), or after (post-coding) (DeVaus, 1995). In this thesis, the coding procedure was performed by establishing a data file in SPSS, and all question items were all pre-coded with numerical values. Data editing procedures were undertaken after data were entered into the data file in order to detect any errors in data entry. Out-of-range values in the data file were corrected by referring to the original questionnaire.

4.3 Data Screening

As the first stage in the data analysis, screening for missing data, outliers, and normality was conducted. Data screening is useful in making sure that data have been correctly entered and that the distribution of variables, that are to be used in the analysis, are normal (Coakes, 2006). These preliminary analyses are discussed next.

4.3.1 Treatment of Missing Data

It is uncommon to obtain data sets without some missing data (Hair et al., 1995; Coakes, 2006). Missing data usually occurs when a respondent fails to answer one or more survey questions. Two ways have been recommended by Tabachnick and Fidell (2001) to evaluate the degree to which there are missing data. The first is to evaluate the amount of missing data, and the second is to evaluate what data are missing (the pattern). However, Tabachnick and Fidell argue that assessing the pattern of missing data may be more important

than the amount of missing data, even though the latter are still necessary. This is because checking the pattern of missing data has an advantage in determining whether or not missing data occur randomly or relate to specific items. That means the pattern of missing data should be randomly distributed among the questionnaires. If it is not, then the missing data will lead to biased estimates of results (Tabachnick and Fidell, 2001). The screening of the data in SPSS indicated that there was no variable that had more than 5% of missing data. Since less than 5% of missing data is considered acceptable (Churchill, 1995), there was no requirement to assess the pattern of missing data. Nonetheless, to ensure that there was no systematic error (the missing data were randomly distributed) in the responses, the randomness of missing data was assessed (Hair et al., 1995). An analysis of the pattern of missing data using SPSS missing data analysis indicated only random occurrences. According to Tabachnick and Fidell (2001) that means there is no problem with the data and thus it can be analyzed further. As there was minimal missing data and the missing data were distributed randomly, it was decided to replace missing responses with the variable mean responses for each variable. This method was deemed to be most appropriate for the following two reasons. First, it is one of the more widely used methods, because it is based on valid responses that make the mean the best single replacement of missing data (Hair et al., 1995). Second, because variables in this thesis are going to be grouped in factors, list wise deletion of variables with missing data would result in substantial loss of the overall sample size (Tabachnick and Fidell, 2001).

4.3.2 Assessment of the Normality

Following the replacement of missing data with variable means (Coakes, 2006); the scale data was assessed to determine normality of distribution. Because of the assumption that factor analysis and structural equation modelling both require variables to be normality

distributed, it was necessary to check the distribution of variables to be used in the analysis (Hair et al., 1995; Tabachnick and Fidell, 2001, Kline, 2005).

As the first step in diagnosing the distribution of the variables, Box and Whisker and stem and leaf plots were used in order to check for outliers. Outliers refer to “observations with a unique combination of characteristics identifiable as distinctly different from the other observations” (Hair et al., 1995, p.57). These outliers might be very high or very low scores (extreme values), and could result in non-normality data and distorted statistics (Hair et al., 1995; Tabachnick and Fidell, 2001). Given that extreme values represented less than 5% of the data, the method of scores changing was used as recommended by Tabachnick and Fidell (2001). Extreme values, in this case, were recoded (changed) to their closest values (up or down).

In order to check any actual deviation from normality, a number of methods can be used. One method is to use skewness and kurtosis. By using this method, values for skewness and kurtosis should not be significant if the observed distribution is exactly normal. For large sample sizes, 200 and over (Hair et al., 1995), even small deviations from normality can be significant but not substantive. Tabachnick and Fidell (2001, p.74) maintain that, “in a large sample, a variable with statistically significant skewness and kurtosis often does not deviate enough from normality to make a substantive difference in the analysis”. Although this method is more applicable to small sample sizes, it was necessary to check the absolute values of skewness and kurtosis. That is a variable with an absolute value of kurtosis index greater than 10.0 may suggest a problem and values greater than 20.0 may indicate a more serious one (Kline, 2005). Curran et al. (1996), following the pattern used in Monte Carlo (computer simulation) studies of estimation methods applied for SEM, suggested thresholds for the categorization of distributions as normal, moderately non-normal, and extremely non-normal. According to Curran et al. (1996), scores are considered

to be non-normal if they demonstrated absolute values of univariate skew indexes ranging from 2.0 to 3.0 and kurtosis values from 7.0 to 21.0; extreme non-normality was defined by absolute values of the univariate skew indexes greater than 3.0, and kurtosis values greater than 21.0. Therefore, it was recommended that absolute value of skewness and kurtosis should not be greater than three and ten. Using SPSS, an inspection of both skewness and kurtosis indicated that the absolute values were within the recommended levels suggesting univariate normality. Table 4.1 also presents the final descriptive statistics for the items used in this thesis.

Table 4.1 Descriptive statistics of items

Items	Mean	SD	Skewness	Kurtosis
MO1	4.4146	1.20139	-.708	.481
MO2	4.1764	1.24780	-.670	.363
MO3	4.0282	1.16451	-.380	.299
MO4	4.2815	1.34863	-.630	-.139
MO5	4.2614	1.19872	-.628	.345
MO6	4.2183	1.44201	-.508	-.445
MO7.	3.7842	1.32901	-.243	-.498
MO8	3.3803	1.44258	.010	-.828
MO9	3.9789	1.39392	-.419	-.468
MO10	3.8662	1.32510	-.367	-.396
MO11	3.9507	1.33360	-.431	-.284
MO12	3.9542	1.25313	-.510	-.199
MO13	3.9039	1.49257	-.329	-.754
MO14	3.7355	1.43227	-.303	-.804
EO1	4.3415	1.22094	-.197	.036
EO2	4.1338	1.27620	-.212	-.220
EO3	4.3768	1.20172	-.488	.121

EO4	4.2324	1.26472	-.445	.021
EO5	4.0588	1.20292	-.347	.315
EO6	4.2606	1.28145	-.518	-.028
InO1	4.3768	1.21923	-.742	.271
InO2	4.1092	1.15207	-.550	-.083
InO3	4.0246	1.18116	-.527	-.099
DOI1	3.6092	1.06605	-.702	.092
DOI2	3.4613	1.09701	-.588	-.141
DOI3	3.4261	1.11121	-.559	-.204
SAI1	4.7465	.98352	-.685	.484
SAI2	4.3604	1.13293	-.450	.213
SAI3	4.5036	.95202	-.468	.466
SAI4	4.7817	.90633	-.472	.031
SAI5	4.4366	1.03960	-.438	-.099
SAI6	2.0282	.82319	-.052	-1.523
SAI7	1.9542	.84151	.087	-1.584
Multivariate			198.008	48.641

While the inspection of skewness and kurtosis values was important, it is recommended that visually assessing normal probability plots is more appropriate for larger sample sizes (Hair et al., 1995). Regarding the Multivariate normality, Harlow tested the impacts of nonnormality as measured by univariate skewness ($-1.25 < \text{skewness} < 2.0$), kurtosis ($-1.0 < \text{kurtosis} < 8.0$), and Mardia's kurtosis ($-4.9 < \text{Mardia's kurtosis} < 49.1$). He showed that, compared with the parameter estimates of the base condition (multivariate normal distribution), the parameter estimates were still unbiased. The chi-squared statistics were not significantly inflated by nonnormality. Since the all cut-off points have been met then it can be concluded the data is ready for analysis. In addition, the recommendation of Muthén and Kaplan ($-1 < \text{skewness and kurtosis} < 1$) for the cut-offs for trustworthy estimates of standard errors which are strongly supported by the findings of Leinard Lomax (16) with univariate skewness and kurtosis measures also have been met.

4.4 Response Rate

As was discussed in the Methodology Chapter, the data used in this thesis was gathered from SME's in Iran and Malaysia. Data collection took six months' in 2012. The survey conducted was distributed to One thousand SME's for Iran and Malaysia, respectively. For Iran 309 surveys were returned. Twenty-five surveys had more than 25% of the items unanswered, resulting in an effective sample of 284 usable completed questionnaires in Iran (response rate of 28.4). In Malaysia, 11 surveys had more than 25% of the items unanswered, resulting in an effective sample of 94 usable completed questionnaires. This represented an effective response rate of 18.9 out of 378 questionnaires.

The response rate of this thesis is considered appropriate for two reasons. First, it is similar to the study of Marino et al., (2008). Secondly, the sample is large enough to conduct SEM analysis, which is used in this thesis.

4.5 Sample Characteristics

A number of variables have been used in order to describe the sample characteristics. The results shown in Table below indicate differences in the demographics of the respondents including gender, age, educational qualification, and general managerial experience. As can be seen in Iran, the analysis of the final sample profile showed a higher number of male (275) respondents than female (9), representing a ratio of 96.83% and 3.17%, respectively.

Table 4.2 Demographic of Respondents (Iran)

Demographic Profile	Number of Respondents	Valid Percentage
age		
Less than 30	35	12%
30 to 50	143	50%

50 above	106	37%
gender		
Male	275	3.17%
Female	9	96.83%
highest level of education		
Doctoral	29	10%
Master	130	46%
Bachelor	125	44%
Diploma	0	0%
managerial experience		
Less than 2 years	7	2%
2-5 years	86	30%
5 to 10 years	53	19%
More than 10 years	138	49%

Table 4.3 Demographic of Respondents (Malaysia)

Demographic Profile	Number of Respondents	Valid Percentage
age		
Less than 30	25	27%
30 to 50	59	63%
50 above	10	10%
gender		
Male	85	91%
Female	9	9%
highest level of education		
Doctoral	0	0%
Master	25	27%
Bachelor	51	54%
Diploma	18	19%
managerial experience		
Less than 2 years	22	23%
2-5 years	25	27%
5 to 10 years	20	21%
More than 10 years	27	29%

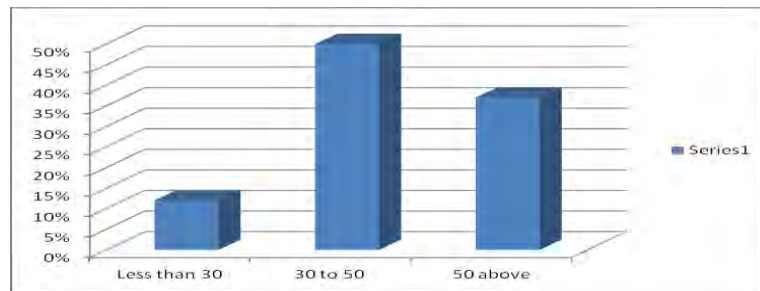


Figure 4.1 Respondents' Age (Iran)

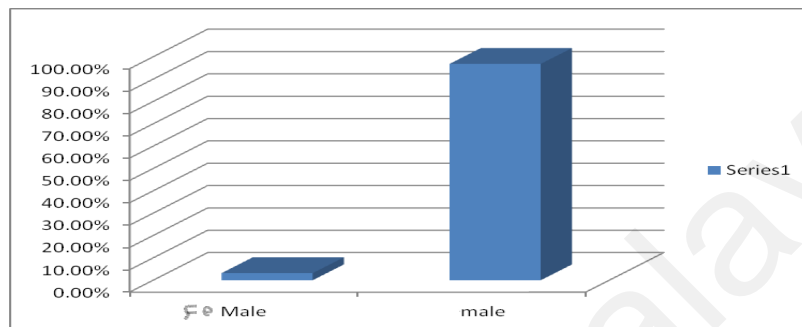


Figure 4.2 Respondents' Gender (Iran)



Figure 4.3 Respondents' Level of Education (Iran)

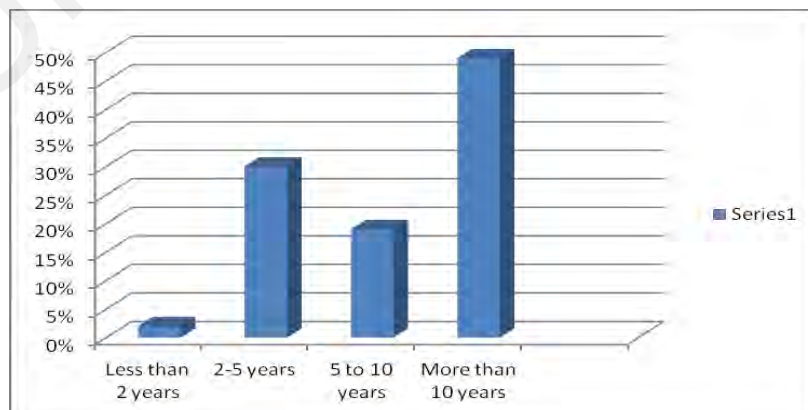


Figure 4.4 Respondents' Managerial Experience (Iran)

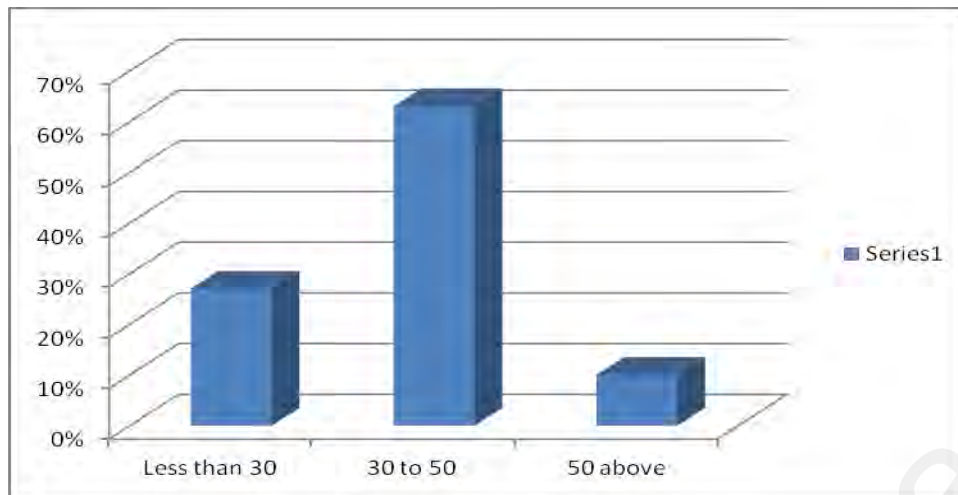


Figure 4.5 Respondents' Age (Malaysia)



Figure 4.6 Respondents' Gender (Malaysia)



Figure 4.7 Respondents' Level of Education (Malaysia)

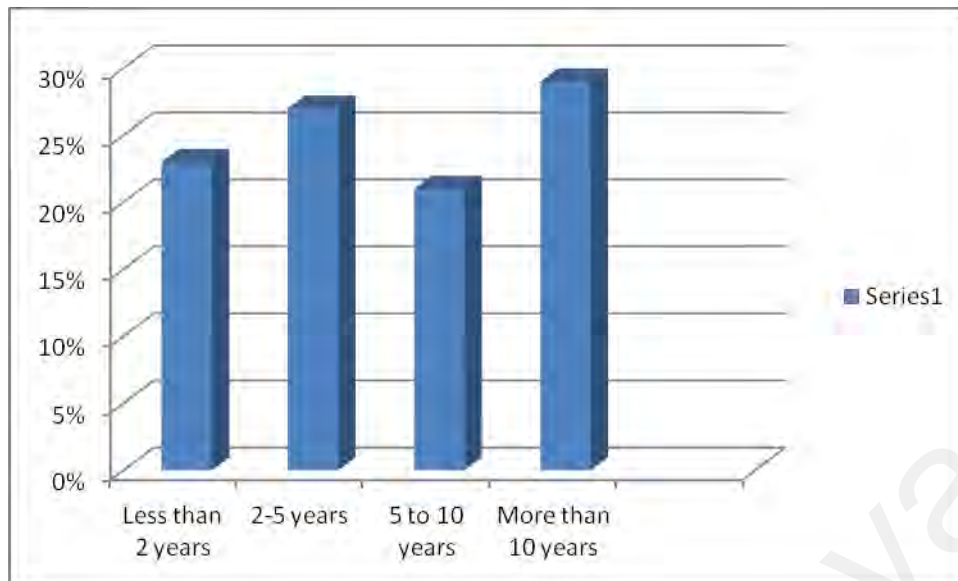


Figure 4.8 Respondents' Managerial Experience (Malaysia)

Table 4.4 Sample's Characteristics (Iran)

Demographic Profile	Number of Respondents	Valid Percentage (Iran)
Number of full-time employees		
Micro	85	29.9%
Small	101	35.6%
Medium	98	34.5%
Firm age		
Less than 5 years	95	33.5%
5-10 years	95	33.5%
More than 10 years	94	33.1%

Table 4.5 Sample Characteristics (Malaysia)

Demographic Profile	Number of Respondents	Valid Percentage
Number of full-time employees		
Micro	22	41.5%
Small	33	35.1%
Medium	39	41.5%
Firm age		
Less than 5 years	39	41.5%
5-10 years	24	25.5%
More than 10 years	31	33%

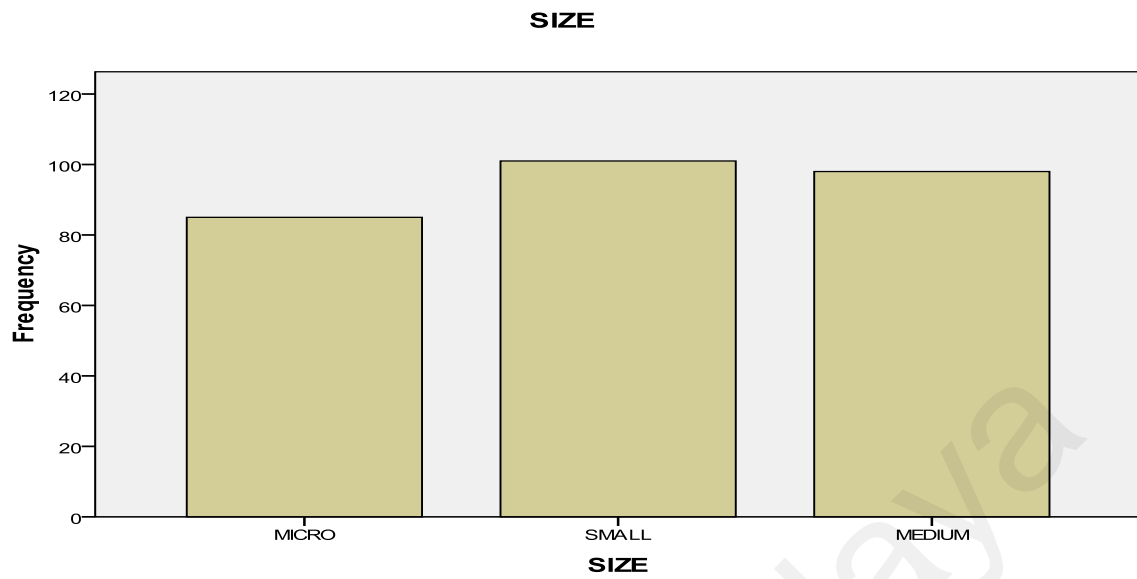


Figure 4.9 IRAN sample firm sizes



Figure 4.10 IRAN sample age

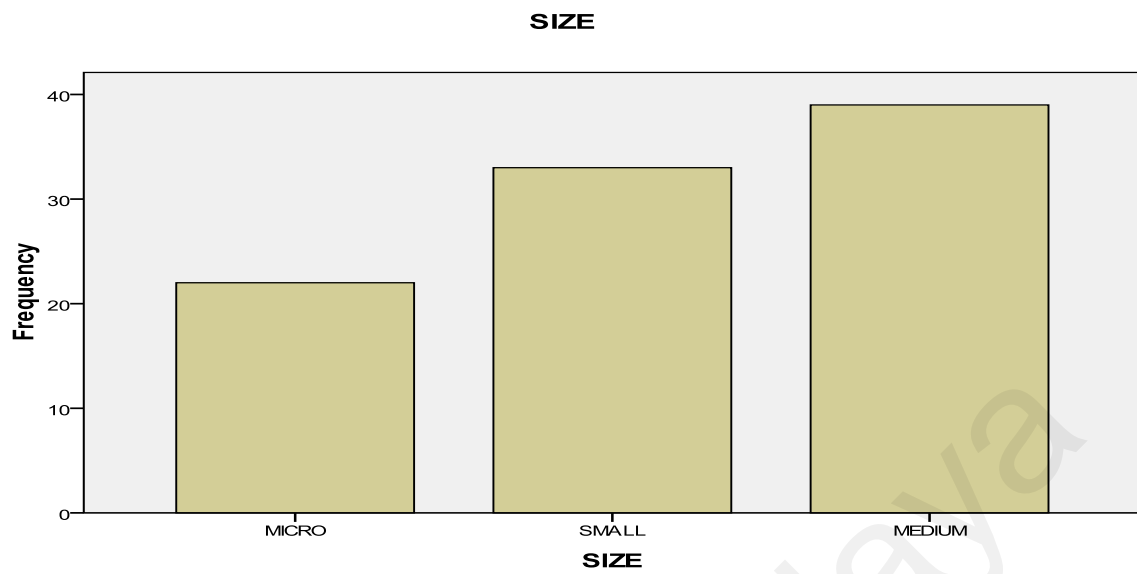


Figure 4.11 MALAYSIA sample firm sizes

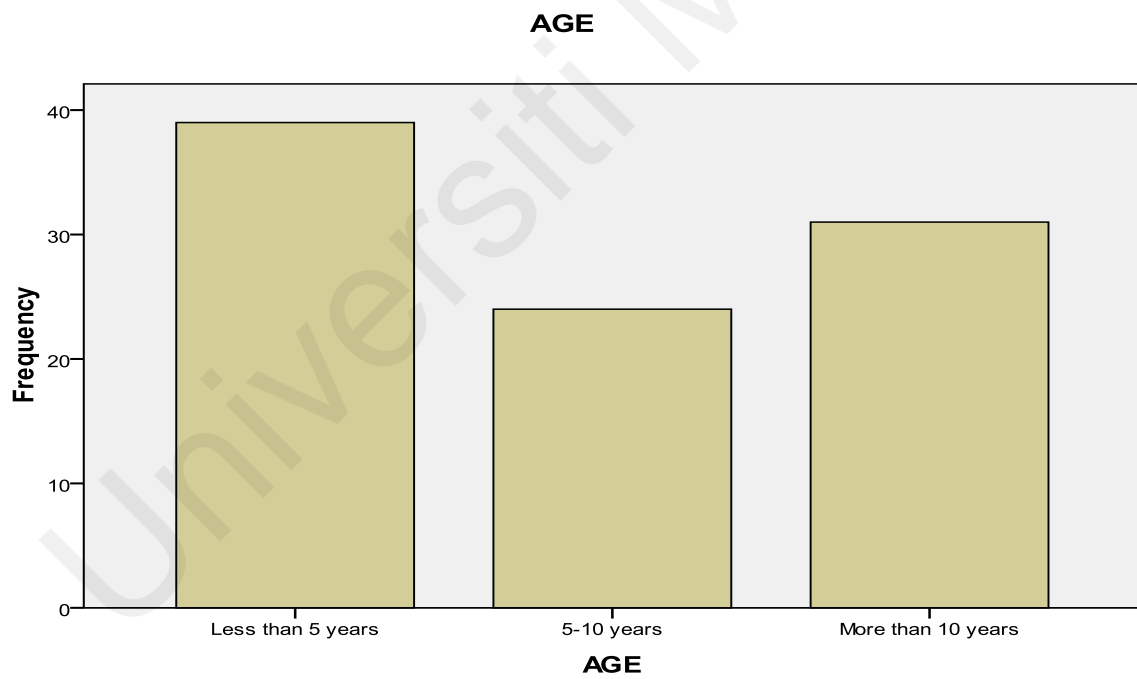


Figure 4.12 MALAYSIA sample age

4.6 Analysis and Results of Structural Equation Modeling

As discussed in section earlier, structural equation modeling (SEM) is used to test the hypotheses arising from the theoretical model. In order to perform the SEM analysis, the two-stage approach recommended by Anderson and Gerbing (1988) was adopted. Anderson and Gerbing (1988) argued that with a two-stage process, a more accurate representation of the reliability of the indicators can be achieved, whereas a single-stage analysis with simultaneous estimation of both measurement and structural models will suffer interpretational confounding (cf. Burt, 1973, 1976). According to Burt (1976, p. 4), interpretational confounding “occurs as the assignment of empirical meaning to an unobserved variable which is other than the meaning assigned to it by an individual a prior to estimating unknown parameters.” Two-step approach is advised by Anderson and Gerbing (1988) on the belief that interpretational confounding is minimized by prior separate estimation of the measurement model.

In the first stage (measurement model), the analysis was conducted by specifying the causal relationships between the observed variables (items) and the underlying theoretical constructs. For this purpose, confirmatory factor analysis using AMOS 18.0 was performed. Following this, the paths or causal relationships between the underlying exogenous and endogenous constructs were specified in the structural model (second stage).

4.7 Selection of Model Fit Criteria

An important aspect of CFA modelling is the determination of the extent to which a hypothesized model fits the observed data. Historically, goodness-of-fit testing in CFA has been based on the Chi-square statistic. Although the Chi-square statistic is a global test of a model’s ability to reproduce the sample variance and covariance matrix, one critical

limitation of this statistic, however, is its known sample-size dependency (Bollen, 1989b). The Chi-square statistic must be interpreted with caution in most applications (Jöreskog & Sörbom, 1996). Thus, statisticians have proposed alternative indices of fit that evaluate the extent to which covariation in the observed data can be explained, a focus that is considered to be a more practical mode of assessment. Overall, the CFA literature has emphasized the use of multiple criteria that reflect statistical, theoretical, and practical considerations (Hayduk, 1987; MacCallum, 1986; Marsh, Balla, & McDonald, 1988). In this study, I addressed this call and the model fit to the data was basically assessed with:

1. The Chi-square Likelihood Ratio (Jöreskog, 1969),
2. The Goodness-of-Fit Index (GFI; Jöreskog & Sörbom, 1984)
3. The Tucker-Lewis index (TLI/NNFI; Tucker & Lewis, 1973),
4. The Comparative Fit Index (CFI; Bentler, 1990),
5. The Incremental Fit Index (IFI; Bollen, 1989a),
6. Root Mean Square Error of Approximation (RMSEA; Steiger, 1990)

On the decision of acceptable level of fit, Bollen (1989b, p. 275) addressed that “overall, selecting a rigid cut-off for the incremental fit indices is like selecting a minimum R^2 for a regression equation. Any value will be controversial. Awareness of the factors affecting the values and good judgment are the best guides to evaluating their size.” Similarly, Marsh and Hocevar (1985) noted that “most applications of confirmatory factor analysis require a subjective evaluation of whether or not a statistically significant χ^2 is small enough to constitute an adequate fit” (p. 567) and that “this issue will continue to be an important one in the future development of this statistical procedure” (p. 568).

Although the subjectivity somewhat undermines some of the rigor that is possible with CFA, Hair et al. (1995) stated that the ultimate decision of whether the fit is acceptable depends on the research purposes established by the researcher. Sobel and Bohrnstedt (1985) also contended that “scientific progress could be impeded if fit coefficients are used as the primary criterion for judging the adequacy of a model” (p. 158). Furthermore, in many instances guidelines have been suggested, but no absolute test is available. As Gerbing and Anderson (1992, p. 134) point out, there is not one best fit index and, “there never be a single index that should always be used to the exclusion of others.” For aforementioned reasons, assessment of model adequacy was based on multiple criteria throughout the model testing process that took into account theoretical, statistical, and practical considerations.

4.8 Stage One: Measurement Model

The measurement model is “the portion of the model that specifies how the observed variables depend on the unobserved, composite, or latent variables” (Arbuckle, 2005, p.89). In this sense, the measurement model aims to specify which items correspond to each latent variable. Accordingly, the measurement model in this thesis specifies the pattern by which each measure is loaded onto a particular variable (composite or latent variables) (Byrne, 2001). Each one of the constructs under was separately analyzed in a separate measurement model. If the results are not consistent with an a priori specified measurement model, then the measurement model should be respecified, and reanalyzed (Anderson and Gerbing, 1988; Bollen, 1989; Hair et al., 1995; Tabachnick and Fidell, 2001; Kline, 2005; Holmes-Smith, 2006). Thus, the measurement model in this stage has been evaluated in two steps. The first step assesses the unidimensionality for each factor, and the second step aims to assess the reliability and validity measurement instrument. These two steps are discussed below.

4.8.1 Assessing the Unidimensionality

First, this section covers the specification of the measurement model for each underlying construct with a discussion of the path diagram. Then, it describes the use of multi-item scales to measure each factor in the measurement model. This is followed with a description of the procedures that were conducted to modify the measurement model.

Each one of constructs was examined in a separate measurement model. As shown in Figures 4.1 to 4.6, previously developed items are observed variables and appear as rectangles. There are single-headed arrows linking the factors (also called latent variables) to their items (indicators), and single-headed arrows linking the error terms to their respective indicators. These figures also provide the standardized parameter estimates (also called factor loadings) on the arrows connecting factors with their items.

In each measurement model, multiple items have been used to measure each factor (Anderson and Gerbing, 1982; Hair et al., 1995; Kline, 2005) to allow the most unambiguous assignment of meaning to the estimated constructs (Anderson and Gerbing, 1988). In this context, Kline (2005, p.172) maintains that, “if a standard CFA model with a single factor has at least three indicators, the model is identified. If a standard model with two or more factors has at least two indicators per factor, the model is identified.” Consistent with this, Crosby et al. (1990) note that in measuring long-term relationships, it is unlikely that one item perfectly measures a construct.

Other researchers such as Bentler and Chou (1987) also suggest the necessary number of items per construct. They suggest that a measurement model should contain at most 20 variables measuring no more than five to six constructs (three to four indicators measure each construct). Although Hair et al (2010) suggest maximum fourteen indicators

measure each construct. This is because the interpretation of results and their statistical significance become difficult when the number of concepts becomes too large (Reisinger and Turner, 1999). As the starting point in the measurement model, each factor of the underlying constructs have the appropriate number of items or indicators. In confirming each measurement model, it may be the case that some items in the scales become redundant, and as such the measurement model needs to be respecified by removing these redundant items (Jöreskog and Sörbom, 1982; Hair, 1995; Jöreskog and Sörbom, 1996; Schumacher and Lomax, 1996; Kline, 2005;). In this way, parsimonious unidimensional constructs are obtained (Anderson and Gerbing, 1988).

The rationale for the above process includes two main considerations as recommended by Kline (2005). First, indicators specified to measure a proposed underlying factor should have relatively high-standardized loadings on that factor. As discussed, this is typically .50 or greater (Hair et al., 1995).

A more detailed evaluation of model fit can also be obtained by an inspection of the normalized residual and modification indices (Jöreskog and Sörbom, 1982; Hair et al., 1995; Schumacher and Lomax, 1996; Holmes-Smith et al., 2006). Here, the normal residual (also called standardized residual) refers to the difference between observed correlation/covariance and the estimated correlation/covariance matrix, and modification indices refer to the calculation of each non-estimated relationship in the specified model. Residuals more than 2.58 are indicative of a specification error in the model, whereas a modification index value greater than 3.84 shows that the chi-square would be significantly reduced when the corresponding parameter is estimated (Hair et al., 1995; Holmes-Smith et al., 2006). In this thesis, the evaluation of the measurement model is not only based on statistical principals, but also on a theoretical justification (Anderson and Gerbing, 1988; Hair et al., 1995; Kline, 2005). That is, the ultimate goal of this thesis is to find a model that is both substantively

meaningful and statistically well-fitting the data and theory (Jöreskog, 1993). This is consistent also with Holmes-Smith et al. (2006, p.15), who maintain that, “the researcher should guard against making changes solely based on data-driven grounds in an attempt to get a model that fits the data better.”

A final consideration in confirming each measurement model is the choice of parameter estimates to be used. These include Maximum Likelihood Estimators (MLE), Instrumental Variables (IV), Unweighted Least Squares (ULS), and Generalized Least Squares (GLS). With the sample in this thesis of 378 respondents, MLE was used as the parameter estimation method for the following reasons. First, according to Jöreskog and Sörbom (1982), MLE under the assumption of a multivariate normal distribution has been considered as most appropriate, especially with larger samples. Second, Anderson and Gerbing (1988, p. 413) emphasize that MLE has “the desirable asymptotic, or large-sample, properties of being unbiased, consistent, and efficient”. Finally, because MLE is suited to theory testing and development, and desirable properties for statistical testing, it has been adopted by a number of relationship marketing authors such as Crosby et al. (1990).

The development of each measurement model is now discussed. Since the hypothesized model in the current study included a total of five a priori specified constructs, five separate CFAs were performed. The results of testing the unidimensionality of each construct in AMOS 18.0 are presented.

4.8.1.1 Market Orientation

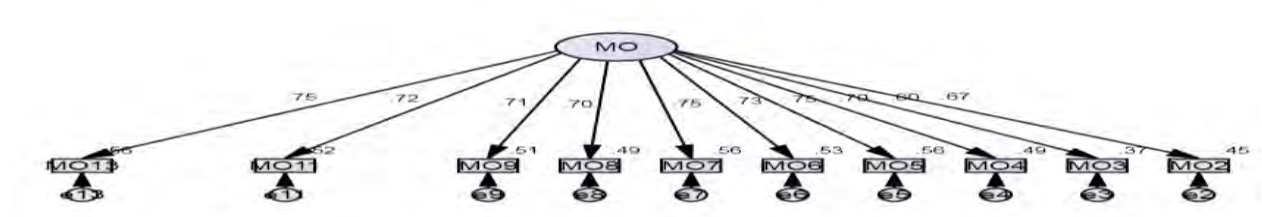


Figure 4.13 Market Orientation Measurement Model

Fourteen indicators were used to measure the one-factor model of Market Orientation (MO1-MO14). Although standardized parameter estimates were all significant ($P < 0.001$), results of the CFA indicated that the initial measurement model needed to be respecified. The chi-square was significant ($\chi^2 = 886.851$, $df = 77$, $P = .000$, $N = 378$). The GFI was .715, RMSEA = .167, CFI = .777, and $\chi^2/df = 11.518$. Examination of standardized residuals indicated that all residual values except (MO1 and MO14) were within the threshold recommended by Hair et al. (1995) (less than 2.58). In addition, modification indices indicated that the indicators MO10 and MO12 had unacceptably high values (181.124, 96.382 respectively)

Standardized Regression Weights: (Group number 1 - Default model)

Table 4.6 Market Orientation Path Coefficients

Path	Estimate	R ²
MO2 <--- MO	.667	0.556
MO3 <--- MO	.605	0.523
MO4 <--- MO	.699	0.507
MO5 <--- MO	.750	0.493
MO6 <--- MO	.727	0.562
MO7 <--- MO	.750	0.529
MO8 <--- MO	.702	0.563
MO9 <--- MO	.712	0.488
MO11 <--- MO	.723	0.366
MO13 <--- MO	.746	0.445

After iteratively removing these redundant items, goodness of fit indices were improved and the modified model showed a better fit to the data. The chi-square was significant ($X^2 = 184.504$, $df = 35$, $P = .000$, $N = 378$). The GFI was .913, RMSEA = .10, CFI = .921, NFI = 0.904, IFI = 0.921 and $X^2/df = 5.272$. Even though the chi-square is still significant, these values suggest that this model fits adequately to the data. As discussed before, it is commonly accepted that the chi-square estimate would potentially reject valid models in large sample size (Bagozzi and Yi, 1988). Although the number of deleted items was relatively high compared with the total, their removal did not significantly change the content of the construct as it was conceptualized. The analysis revealed coefficient of determination (R^2) values of indicators. The largest squared correlation coefficient (R^2) value of .56 can be interpreted as indicating 56% of its variance can be accounted for by the latent construct 'market orientation (MO)'.

4.8.1.2 Entrepreneur Orientation

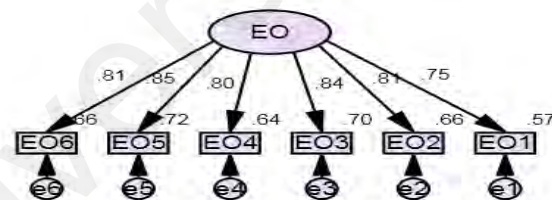


Figure 4.14 Entrepreneur Orientation Measurement Model

As presented in figure, six items (EO1-EO6) were used to measure the one-factor model of entrepreneur orientation. The results of CFA provided evidence for accepting this model. According to Figure 4.2, the standardized parameters estimate shows that all indicators were statistically significant ($P < 0.001$) and loaded on the MO factor.

Table 4.7 Entrepreneur Orientation Standardized Regression Weights

	Path	Estimate	R ²
EO1	<--- EO	.752	0.661
EO2	<--- EO	.814	0.724
EO3	<--- EO	.836	0.64
EO4	<--- EO	.800	0.699
EO5	<--- EO	.851	0.663
EO6	<--- EO	.813	0.566

CFA results also showed that the chi-square was significant ($\chi^2 = 51.909$, $df = 9$, $P = 0.000$, $N = 378$). The GFI was .954, CFI = .972, RSMEA = .84, NFI= 0.966, IFI= 0.972 and $\chi^2/df = 5.768$. The analysis revealed coefficient of determination (R^2) values of indicators. The largest squared correlation coefficient (R^2) value of .69 can be interpreted as indicating 69% of its variance can be accounted for by the latent construct ‘entrepreneur orientation (EO). These values suggest an adequate fit to the model, even though the chi-square was significant. As was discussed previously, the measurement model could be judged as providing an acceptable fit even though the chi-square value is statistically significant, especially with a large sample (Anderson and Gerbing, 1988, Bagozzi and Yi, 1988).

4.8.1.3 Innovation Orientation

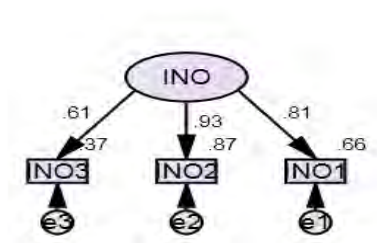


Figure 4.15 Innovation Orientation Measurement Model

As presented in figure, three items (INO1-INO3) were used to measure the one-factor model of innovation orientation. Since the model is just identified (0 degree of freedom) the χ^2 goodness of fit is zero. Because of this, saturated models have perfect fits (Heir et al, 2010). According to Figure 4.3, the standardized parameters estimate shows that all indicators were statistically significant ($P < 0.001$) and loaded on the INO factor.

Table 4.8 Innovation Orientation Standardized Regression Weights

Path	Estimate	R ²
INO1 <--- INO	.811	.658
INO2 <--- INO	.934	.873
INO3 <--- INO	.609	.371

The largest squared correlation coefficient (R^2) value of .87 can be interpreted as indicating 87% of its variance can be accounted for by the latent construct 'innovation orientation' (INO).

4.8.2 Degree of Internationalization

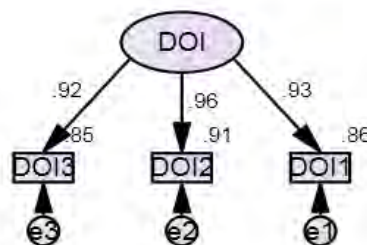


Figure 4.16 Degree of Internationalization Measurement Model

As same as innovation orientation, three items (DOI1-DOI3) were used to measure the one-factor model of degree of internationalization. Since the model is just identified (0 degree of freedom) the χ^2 goodness of fit is zero. According to Figure 4.3, the standardized parameters estimate shows that all indicators were statistically significant ($P < 0.001$) and loaded on the DOI factor.

Table 4.9 Degree of Internationalization Standardized Regression Weights

Path	Estimate	R ²
DOI1 <--- DOI	.928	.847
DOI2 <--- DOI	.956	.915
DOI3 <--- DOI	.920	.861

The largest squared correlation coefficient (R^2) value of .91 can be interpreted as indicating 91% of its variance can be accounted for by the latent construct 'degree of internationalization (DOI).

4.8.3 Intention to Form Alliance

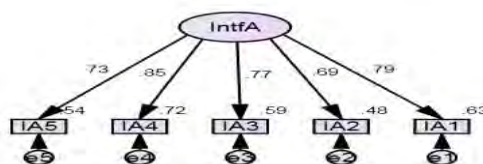


Figure 4.17 Intentions to Form Alliance Measurement Model

Seven items were used to measure intention to alliance. The initial standardized estimations for the hypothesized model showed that all the parameters were highly significant ($P < 0.001$). However, two of these variables were below the threshold value of .5 namely IA6 and IA7. Their standardized loadings were .253 and .248 respectively.

Table 4.10 Intention to Form Alliance Standardized Regression Weights

Path	Estimate	R ²
IA1 <--- IntfA	0.792	0.537
IA2 <--- IntfA	0.691	0.717
IA3 <--- IntfA	0.770	0.592
IA4 <--- IntfA	0.847	0.478
IA5 <--- IntfA	0.733	0.627

After iteratively removing these redundant items, goodness of fit indices were improved and the modified model showed a better fit to the data. The chi-square was significant ($X^2 = 62.435$, $df = 5$, $P = .000$, $N = 378$). The GFI was 0.938, RMSEA = .10, CFI = 0.940 NFI = 0.935, IFI = 0.94 and $X^2/df = 12.48$. Even though the chi-square is still significant, these values suggest that this model fits adequately to the data. As discussed before, it is commonly accepted that the chi-square estimate would potentially reject valid models in large sample size (Bagozzi and Yi, 1988). The largest squared correlation coefficient (R^2) value of .71 can be interpreted as indicating 71% of its variance can be accounted for by the latent construct 'degree of internationalization (DOI)'.

4.9 Overall measurement model

It is absolutely necessary to establish convergent and discriminant validity, as well as reliability, when doing a CFA. If the factors do not demonstrate adequate validity and reliability, moving on to test a causal model will be useless. The measurement model specifies the rules governing how the latent variables are measured in terms of the observed variables, and it describes the measurement properties of the observed variables. That is, measurement models are concerned with the relations between observed and latent variables (HO, 2006). There are no single-headed arrows linking the constructs because there are no theoretical relationships that one of these factors causes the other. Instead, double-headed arrows show correlations between these factors. The values appearing next to the edge of the items are squared multiple correlations, and values next to the curved double-headed arrows show correlations between the latent variables (factors).

Second, the estimated correlations between the factors should not be greater than .85 (Kline, 2005). In other words if the correlation become more than 0.85, there is overlap between these two factors and thus they are empirically not distinguishable. These two considerations are made in conjunction with the overall goodness-of-fit indices to suggest acceptance of unidimensionality for each model.

The final model with the five constructs shows near acceptable fit indices. The chi-square was ($\chi^2 = 951.612$, $df = 314$, $P = .000$, $N = 378$). All of $GFI = .848$, $CFI = .910$, $TLI = .899$, $RMSEA = .073$, and $\chi^2 / df = 3.031$ are mostly acceptable. As discussed, the measurement model could be judged as providing an acceptable fit even though the chi-square value is statistically significant (Anderson and Gerbing, 1988), especially with a large sample (Bagozzi and Yi, 1988). To improve the model fit based on three thresholds that is

provided by Heir et al (2010), ie $CFI > .9$, $X^2/df < 3$ and $RMSEA < .08$, two errors that are for a same construct were correlated namely MO11 and MO9.

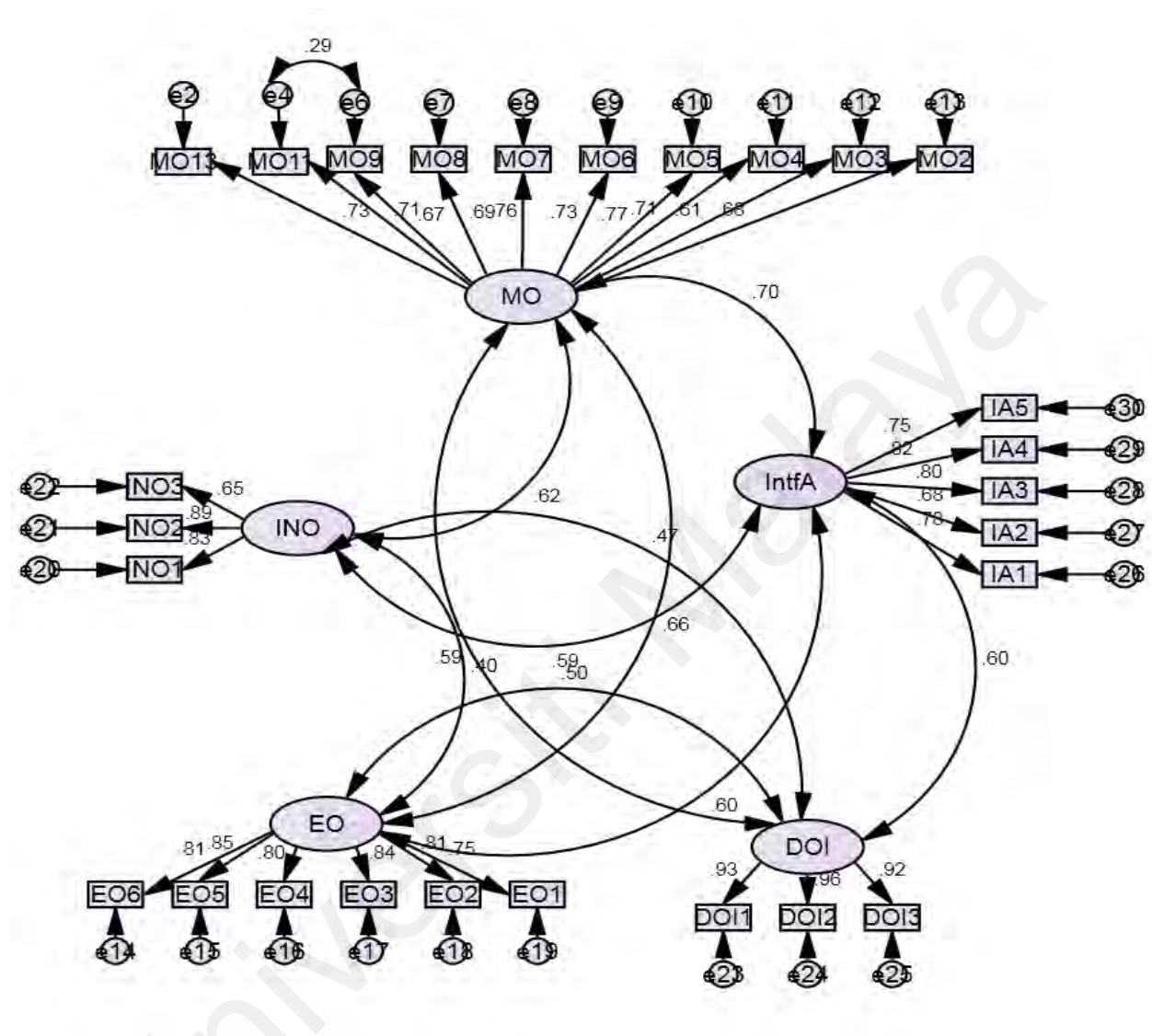


Figure 4.18 Overall Measurement Model

By modifying the model, the chi-square was ($X^2 = 917.246$, $df = 313$ $P = .000$, $N = 378$). All of $GFI = .853$, $CFI = .915$, $TLI = .905$, $NFI = .877$, $IFI = .916$, $RMSEA = .072$, and $X^2 / df = 2.930$ were improved. Given that the model fits the data adequately and the correlations between the underlying factors are less than .85 (see the values on the double-headed arrows in Figure 4.5), no further adjustments were required.

**Table 4.11 Overall Measurement Model Standardized Regression Weights (GROUP
VARIANT)**

Path	Estimate	R ²
MO13 <--- MO	.732	0.602
MO11 <--- MO	.707	0.462
MO9 <--- MO	.675	0.647
MO8 <--- MO	.688	0.68
MO7 <--- MO	.757	0.556
MO6 <--- MO	.728	0.863
MO5 <--- MO	.768	0.914
MO4 <--- MO	.707	0.846
MO3 <--- MO	.615	0.418
MO2 <--- MO	.679	0.799
EO1 <--- EO	.754	0.692
EO2 <--- EO	.814	0.655
EO3 <--- EO	.842	0.715
EO4 <--- EO	.801	0.642
EO5 <--- EO	.846	0.71
EO6 <--- EO	.809	0.663
INO1 <--- INO	.832	0.568
INO2 <--- INO	.894	0.461
INO3 <--- INO	.646	0.378
DOI3 <--- DOI	.920	0.5
DOI2 <--- DOI	.956	0.589
DOI1 <--- DOI	.929	0.53
IA5 <--- IntfA	.746	0.573
IA4 <--- IntfA	.824	0.474
IA3 <--- IntfA	.804	0.455
IA2 <--- IntfA	.680	0.499
IA1 <--- IntfA	.776	0.536

Although the criterion of normed Chi-square is subjective or arbitrary (Kelloway, 1996), model may be, acceptable if the Chi-square value is less than five times the size of the degrees of freedom. The Ch-square/df ratio (2.93) met the recommended criterion of being less than 5 (Hair et al. 2010), indicating acceptable fit to the data.

The root mean square error of approximation (RMSEA) value for the hypothesized model is 0.00, with the 90% confidence interval ranging from .06 to .07. The RMSEA point estimate is less than suggested value of 0.1 for outstanding fit to the data (Steiger, 1990), the value of upper bound of the 90% interval is below the value suggested by Browne and Cudeck (1993), evidencing that the model fits the data well. As shown in Table 6-9, both the GFI (.853) and AGFI (.823) were slightly below the suggested value of 0.9 (Byrne, 1998; Hair et al., 1995) and both values were marginally acceptable. Kelloway (1998), however, warned that this guideline of GFI is based on the experience and highly arbitrary, and thus should be treated with caution; in other words, the current GFI score might be downwardly biased. As with the CFI, coefficient values range from zero to 1.00, with higher values indicating superior fit. The value of IFI falls beyond the normed range and can be greater than 1. Based on the CFI and IFI values reported (0.915 and 0.916, respectively), it can once again be concluded that hypothesized model fits the sample data fairly well. The NFI value (.877) was identified as slightly less than the suggested value of .90 (Bentler, 1992). Examination of standardized loadings revealed that none of the loadings was below the value of .60 suggested by Hatcher (1994), being a sign of at least moderately large loadings. Information of R^2 was reviewed to determine the extent to which the measurement model is adequately represented by the observed measures. Results of R^2 values reported in Table 4-8 evidenced moderately strong measures at least, with the strongest indicators being the three measures of degree of internationalization (DOI1-DOI3) and with the weakest indicators being the four measures of market orientation MO2, MO3, MO9). The highest R^2 values (.91) for the variable 'DOI2' can be interpreted, for example, as indicating that 91% of its variance can be accounted for by the latent factor DOI. Overall, based on the analysis of goodness-of-fit statistics, parameter estimates, the most that can be concluded from these results is that hypothesized five-factor measurement model provided a meritorious fit to the model.

4.10 Reliability and validity

Following the establishment of the unidimensionality step and before testing the hypotheses in the structural model (stage two), the reliability and validity of the underlying constructs were assessed (De Wulf et al., 2001). For this purpose, the constructs discussed in overall measurement model were assessed for reliability using Cronbach's alpha, construct reliability (CR), and average variance extracted (AVE), and for validity using construct, convergent and discriminant. Reliability of a measuring instrument means low measurement error and indicates the extent to which it yields consistent and stable results over repeated observations (Eagly & Chaiken 1993; Nunnally, 1978). In other words, reliability can be interpreted as the proportion of the observed variable that is free from error (Lord & Novick, 1968). According to DeVellis (1991), "scale reliability is the proportion of variance attributable to the true score of the latent variable" (p. 24). In practice, reliability is typically defined in terms of the consistency of the scores that are obtained on the observed variable because it is not possible to obtain true scores on a variable (Hatcher, 1994). Coefficient alpha is, therefore, often referred to as an internal consistency index of reliability because with other factors equal, alpha coefficient will be high if the various items on a scale intercorrelate with one another: "internal consistency is the extent to which the individual items that constitute a test correlate with one another or with the test total" (Hatcher, 1994, p. 132). Cronbach's alpha (α) is one of the most widely-used indexes of internal consistency reliability of a set of items and the basic statistic for assessing the reliability of a scale composed of multiple items based on internal consistency, especially for Likert and semantic scales (Churchill, 1979; Hatcher, 1994). As shown in Table 4-12, on all occasions, Cronbach's alpha was higher than the suggested minimum acceptable level of .70; increasingly large coefficient alphas beyond .80 may not significantly increase overall reliability (Nunnally, 1978). The majority of scales had high reliabilities,

ranged from .82 to .92, which indicate the sample of items performs well in capturing the construct which motivated the measure. The acceptable level of Cronbach's alpha values found in this study implied that respondents answered the items within each scale in a somewhat uniform manner and unidimensional scales were likely to be extracted.

Table 4.12 Reliability and Convergent Validity Analysis

	LOADINGS	AVE	CR	Chronbach's alpha
MO13	0.732	0.500	0.909	0.909
MO11	0.708			
MO9	0.676			
MO8	0.687			
MO7	0.756			
MO6	0.728			
MO5	0.768			
MO4	0.708			
MO3	0.613			
MO2	0.68			
EO1	0.753	0.659	0.920	0.920
EO2	0.814			
EO3	0.844			
EO4	0.802			
EO5	0.845			
EO6	0.808			
INO1	0.833	0.636	0.838	0.822
INO2	0.893			
INO3	0.645			
DOI3	0.902	0.874	0.954	0.954
DOI2	0.946			
DOI1	0.916			
IA5	0.744	0.589	0.877	0.872
IA4	0.824			
IA3	0.806			
IA2	0.678			
IA1	0.777			

Reliability of the measures in this thesis was first assessed using Cronbach's coefficient alpha and composite reliability. In using confirmatory factor analysis, CR and AVE were

calculated from model estimates using the CR formula¹ and AVE formula² given by Fornell and Larcker (1981). A composite reliability measure is analogous to coefficient alpha and estimates the internal consistency of a latent variable (Bagozzi, 1981a); the evaluation of this measure is critical for the reason that tests of conceptual model specified by hypothesized causal relationships involve latent constructs rather than their respective manifest indicators (Hughes, Price, & Marrs, 1986). Bagozzi and Yi (1988) recommended that CR should be equal to or greater than .60, and AVE should be equal to or greater than .50. Based on these assessments, measures used within this thesis were within the acceptable levels supporting the reliability of the constructs.

In the case of validity, confirmatory factor analysis has also been used to assess construct, convergent and discriminant validity. Empirically, construct validity exists when the measure is a good representation of the variable the researcher intends to measure. As Bagozzi (1980) argued, construct validity is a necessary prerequisite for theory testing. In this thesis, results obtained from goodness-of-fit indices confirmed construct validity (Hsieh and Hsiang, 2004). Convergent validity is adequate when constructs have an average variance extracted (AVE) of at least 0.5. It indicates that each of the factors explains more than 0.5 of the variation in the observed variables. All constructs in our measurement model exceed that value. In addition, the internal structure of the measures was also evaluated using absolute

1

$$\rho_{\eta} = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum \varepsilon_i}$$

Where λ_i is the standardised loading for each observed variable, ε_i is the error variance associated with each observed variable, and ρ_{η} is the measure of construct reliability.

2

$$\rho_{vc(\eta)} = \frac{\sum \lambda_i^2}{\sum \lambda_i^2 + \sum \varepsilon_i}$$

Where λ_i is the standardised loading for each observed variable, ε_i is the error variance associated with each observed variable

value of factor loadings. Within the measurement model, all path coefficients from latent constructs to their corresponding indicators were greater than the suggested criteria of .60, indicating convergent validity for the constructs (Bagozzi & Yi, 1988).

Table 4.13 Discriminant Validity Analysis

	MO	EO	INO	DOI	I2FA
MO	0.500				
EO	0.434	0.659			
INO	0.381	0.160	0.636		
DOI	0.348	0.253	0.216	0.874	
I2FA	0.494	0.365	0.348	0.360	0.589

The measure should have not only convergent validity, but also discriminant validity. Discriminant validity describes the degree to which the indicators of theoretically distinct concepts are unique from each other (Hair et al, 2010). It is confirmed when the AVE of each construct is greater than the variance shared between the construct and other constructs in the model. Table depicts the correlation matrix, with square correlations among constructs and the AVE on the diagonal for each construct. The AVE for each construct is larger than the square correlation of that construct with all other constructs of the model.

4.11 Multicollinearity

Multicollinearity means that our independent variables are too highly correlated with each other. The way to check this is to calculate a Variable Inflation Factor (VIF) for each independent variable after running a multivariate regression using one of the *IVs* as the dependent variable, and then regressing it on all the remaining IVs. Acceptable threshold for VIF is 3 (Hair et al, 2010). According to the table all VIF's are below the cut-off point therefore the problem of multicollinearity does not existed in this model.

Table 4.14 Multicollinearity (Variable Inflation Factors)

	DV	INO	MO	EO
IV				
INO			1.244	1.841
MO		2.005		1.841
EO		2.005	1.244	

4.12 Common Method Bias

Common method bias refers to a bias in the dataset due to something external to the measures. Something external to the question may have influenced the response given. For example, collecting data using a single (common) method, such as an online survey, may introduce systematic response bias that will either inflate or deflate responses (Podsakoff et al, 2003). Harman's single factor test, tests to see if the majority of the variance can be explained by a single factor. To do this, constrain the number of factors extracted in EFA to be just one (rather than extracting via eigenvalues). Then examine the unrotated solution. If CMB is an issue, a single factor will account for the majority of the variance in the model.

Table 4.15 Harman's Single Factor Test

Comp onent	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% Variance	of Cumulative %	Total	% Variance	of Cumulative %
1	13.721	41.578	41.578	13.721	41.578	41.578
2	2.676	8.110	49.687			
3	2.221	6.730	56.417			
4	1.761	5.336	61.753			
5	1.323	4.010	65.763			
6	1.126	3.412	69.176			
...			
32	.090	.272	99.765			
33	.078	.235	100.000			

Extraction Method: Principal Component Analysis.

Since single factor account for by 42% of the variance in the model (less than half of variance) therefore common method bias is not an issue in our data.

4.13 Mean differences

To test mean differences between the two different groups (countries) t-test is being used. In other words the extent to which each variable is different between the two countries, Iran and Malaysia.

Table 4.16 Countries Group Differences

		N	Mean	Std. Deviation	Std. Error Mean
MO	1.00	284	3.9953	0.98276	0.05832
	2.00	94	4.0068	0.92643	0.09555
EO	1.00	284	4.2340	1.04564	0.06205
	2.00	94	4.0922	1.08388	0.11179
INO	1.00	284	4.1702	.99606	0.05911
	2.00	94	4.5106	1.14191	0.11778
DOI	1.00	284	3.4988	1.03625	0.06149
	2.00	94	4.6312	1.02707	0.10593
In2fA	1.00	284	3.8302	0.58727	0.03485
	2.00	94	4.6452	0.95433	0.09843

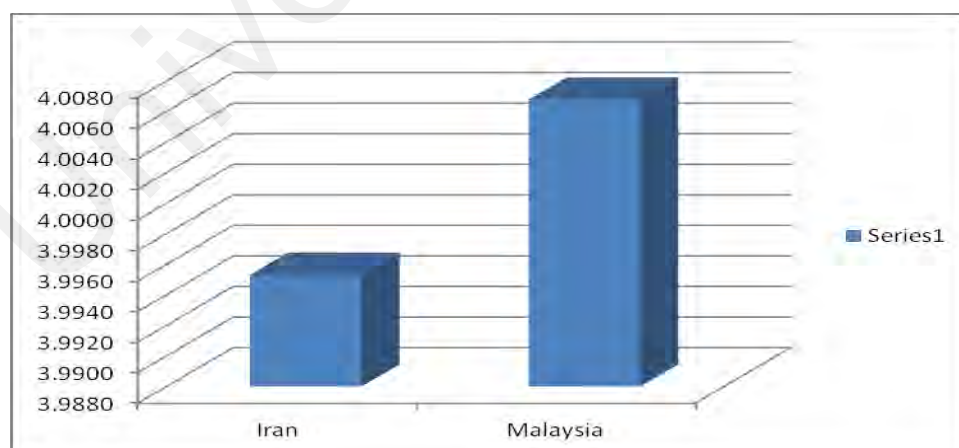


Figure 4.19 Iran and Malaysia Market Orientation mean differences

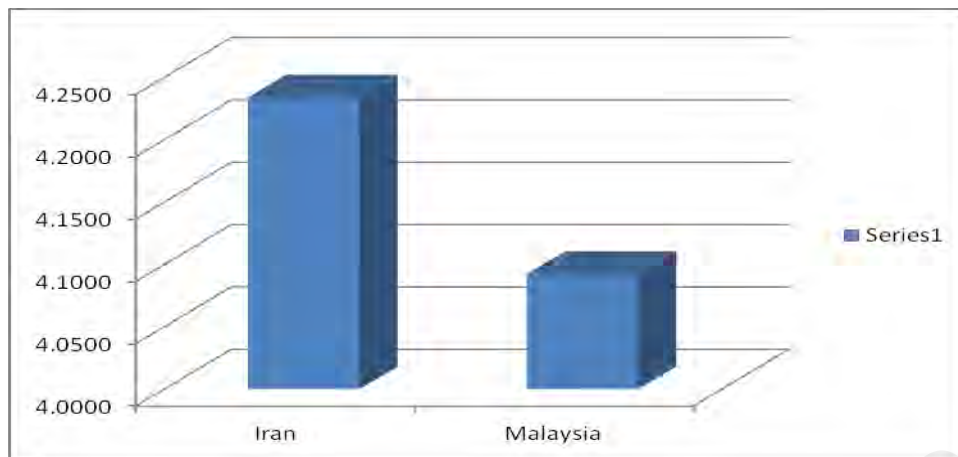


Figure 4.20 Iran and Malaysia Entrepreneur Orientation mean differences

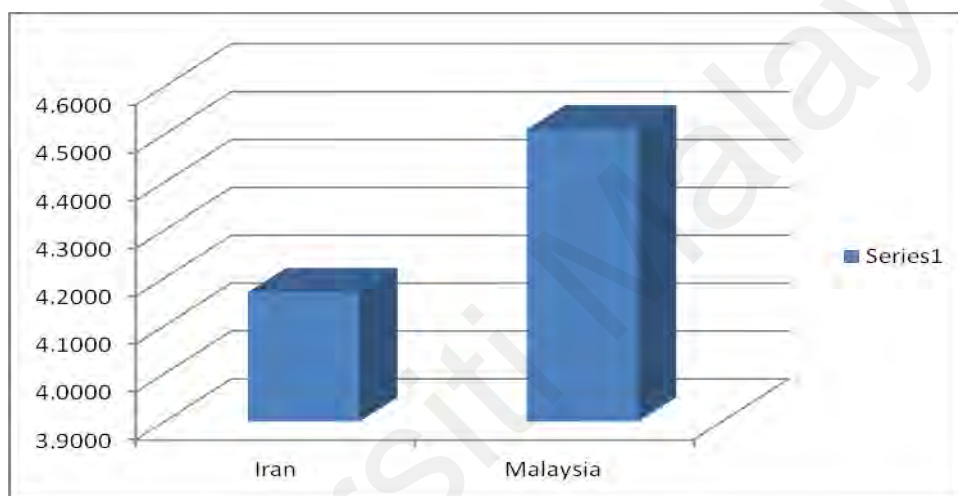


Figure 4.21 Iran and Malaysia innovation Orientation mean differences

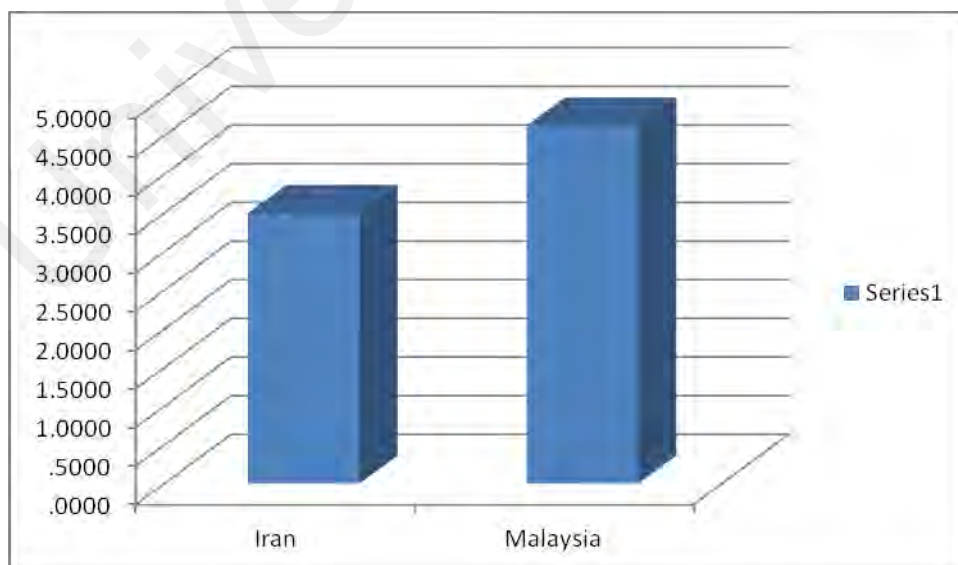


Figure 4.22 Iran and Malaysia Degree of Internationalization mean differences

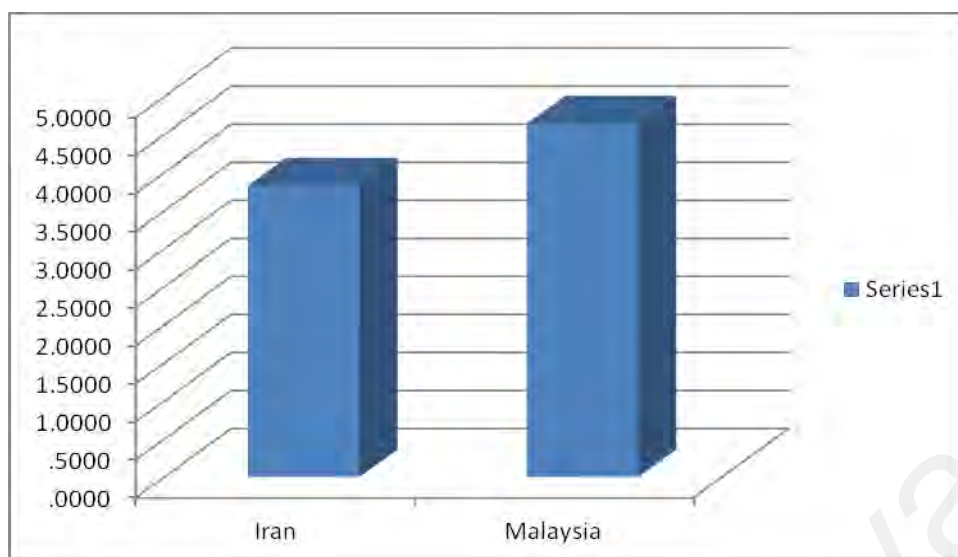


Figure 4.23 Iran and Malaysia Intention to Form Alliance mean differences

As Table above illustrates, on average, Malaysian firms showed a greater extent in terms innovation orientation, degree of internationalization and intention to alliance than Iranian firms.

Table 4.17 Variables Test of Mean Difference in two Countries

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
MO	Equal variances assumed	.482	.488	-.100	376	.921	-.01148	.11532	-.23823	.21528
	Equal variances not assumed			-.103	167.540	.918	-.01148	.11194	-.23248	.20953
EO	Equal variances assumed	.233	.630	1.129	376	.260	.14178	.12557	-.10512	.38868
	Equal variances not assumed			1.109	154.309	.269	.14178	.12786	-.11080	.39436

I N O	Equal variances assumed	1.93 6	.165	-2.767	376	.006	-.34045	.12305	-.58239	-.09851
	Equal variances not assumed			-2.584	142.7 65	.011	-.34045	.13178	-.60094	-.07996
D O I	Equal variances assumed	.055	.814	-9.204	376	.000	-1.13238	.12304	- 1.3743 1	-.89045
	Equal variances not assumed			-9.245	160.2 47	.000	-1.13238	.12249	- 1.3742 8	-.89048
In 2f A	Equal variances assumed	26.6 06	.000	-9.836	376	.000	-.81498	.08286	-.97790	-.65206
	Equal variances not assumed			-7.805	117.1 7	.000	-.81498	.10442	- 1.0217 7	-.60819

The results of the mean difference test show that innovation orientation and intention to alliance in Malaysian firms are significantly more than Iranian firms.

4.14 Measurement Invariance

The measuring instrument used in this study was utilized to analyze different subgroups i.e. Iran and Malaysia. Therefore, it was important to develop a measuring instrument that is invariant across the subgroups. The importance of an invariant instrument for group analysis is paramount. Without an invariant instrument, no researcher can determine if the mean differences found in the groups are caused by substantive differences among the groups or by measurement artefacts. The lack of an invariant instrument can lead to type I and II errors. A type I error is the probability of rejecting the null hypothesis when it is true, e.g., saying two groups differ when in fact they don't. A type II error is the probability of accepting the null hypothesis when it is false, e.g. Saying two groups don't differ when they do.

As noted by Vandenberg and Lance (2000), and recently reinforced by Schmitt and Kuljanin (2008), and Thompson and Green (2006), additional steps beyond the normal ones involved with SEM (e.g., assessing model fit, significance of factor loadings, etc.) are needed where invariance is a concern. The goal of these steps is to ensure that the properties of the underlying measurement model representing the constructs and indicators are equivalent or invariant across groups or time. These steps by necessity need to be completed prior to examining structural paths between the latent variables, and thus, are typically completed at the measurement model level with models including factor correlations (rather than structural paths). The configural (a) and metric invariance (b) tests are most critical, and they must be examined before investigating the structural parameters of the two groups.

The test for configural invariance addresses whether members in Groups 1 and 2 use the same conceptual frames of reference to respond to the items representing each of the four latent variables in the measurement model. Operationally, the same measurement model is specified for each group's data and are jointly analyzed using a multi-sample approach (i.e., a simultaneous CFA of both group's data). Only one set of fit indices is produced, and they are interpreted to infer whether the measurement model represents both groups' data equally well. If results for the fit indices are favorable, the conclusion is that the items were interpreted and responded to using the same constructs in each group. If the indices are unfavorable, it can no longer be safely assumed that items were interpreted in both groups using the same constructs (Vandenberg & Lance, 2000). If configural invariance is not supported, then the researcher should conclude that the hypotheses of differences for the structural parameters across groups cannot be tested using the current data because the evidence indicates that the latent variables and the indicators are not linked the same way in the two groups.

The next key test is for metric invariance and examines the equality of factor loadings across groups. Using the same model specification as that for configural invariance (Figure 12.4), this test is undertaken by equating the factor loadings (λ_x) of like items between groups (Vandenberg & Lance, 2000) and it examines the null hypothesis that factor loadings for like items are invariant across groups. Testing the appropriateness of metric invariance is relatively straightforward (Vandenberg & Lance, 2000). It encompasses the use of both the fit indices of the metric invariance model itself and the chi-squared difference test between this model (with equality constraints between loadings of like items) and the configural invariance model (without the equality constraints). Support for metric invariance is observed when the fit indices for the metric invariance model are favorable and the chi-squared difference test between this model and the configural invariance model is not statistically significant.

4.14.1 MO

As it has been mentioned configural invariance tests whether the factor structure represented in CFA achieves adequate fit when both groups are tested together and freely (i.e., without any cross-group path constraints). To do this, measurement model should be built as usual, and two groups should be created in AMOS (e.g., Iran and Malaysian), and then split the data along each country. If the resultant model achieves good fit, then we have configural invariance.

The results of the configural invariance are presented in table (next two). As it is shown the resultant model achieves good fit and all loading are significant.

Table 4.18 Market Orientation Loadings (Multi-group Analysis)

	loadings		
Item	Iran	Malaysia	difference
MO13	0.751	0.728	0.023
MO11	0.738	0.67	0.068
MO9	0.718	0.689	0.029
MO8	0.695	0.723	0.028
MO7	0.748	0.759	0.011
MO6	0.738	0.692	0.046
MO5	0.741	0.784	0.043
MO4	0.691	0.729	0.038
MO3	0.608	0.598	0.01
MO2	0.66	0.691	0.031

Table 4.19 Market Orientation Configural Invariance (Model fit)

fit index	
X ² /df	3.193
CFI	0.918
RMSEA	0.076

The evaluation of metric invariance is the same as in the structural model invariance test: if we have a significant p-value for the chi-square difference test, then we have evidence of differences between groups, otherwise, they are invariant. The results of the chi-square

difference test are insignificant $\chi^2 = 3.918$ and $p > 0.05$ (as it is shown in table below). Thus it can be concluded that market orientation construct is invariant across groups.

Table 4.20 Market Orientation Group Invariant Test

Model	DF	CMIN	P	NFI	IFI	RFI	TLI
				Delta-1	Delta-2	rho-1	rho2
GROUP INVARIANT	9	3.918	.917	.002	.002	-.014	-.015

4.14.2 EO

The results of the configural invariance are presented in next 2 tables. As it is shown the resultant model of entrepreneur orientation achieves good fit and all loading are significant.

Table 4.21 Entrepreneur Orientation Loadings (Multi-group Analysis)

	loadings		
Item	Iran	Malaysia	difference
EO1	0.73	0.818	0.088
EO2	0.822	0.786	0.036
EO3	0.833	0.852	0.019
EO4	0.791	0.828	0.037
EO5	0.839	0.882	0.043
EO6	0.83	0.762	0.068

Table 4.22 Entrepreneur Orientation Configural Invariance (Model fit)

fit index	
X ² /df	3.407
CFI	0.972
RMSEA	0.08

The result of the chi-square difference test is insignificant $\chi^2 = 4.923$ and $p > 0.05$ (as it is shown in table below). Thus it can be concluded that entrepreneur orientation construct is invariant across groups.

Table 4.23 Entrepreneur Orientation Group Invariant Test

Model	DF	CMIN	P	NFI	IFI	RFI	TLI
				Delta-1	Delta-2	rho-1	rho2
GROUP INVARIANT	5	4.923	.425	.003	.003	-.010	-.010

4.14.3 INO

As it has been mentioned earlier since this construct has three items then model is saturated and X² for this model cannot be accomplished. Therefore only the factor loadings of countries are presented. As it is shown the resultant model of innovation orientation all loading are significant.

Table 4.24 Innovation Orientation Loadings (Multi-group Analysis)

	loadings		
Item	Iran	Malaysia	difference
INO1	0.791	0.864	0.073
INO2	0.948	0.898	0.05
INO3	0.537	0.767	0.23

4.14.4 DOI

As same as innovation orientation construct since this construct has three items then model is saturated and X2 for this model cannot be accomplished. Therefore, only the factor loadings of countries are presented. As it is shown the resultant model of degree of internationalization all loading are significant.

Table 4.25 Degree of Internationalization Loadings (Multi-group Analysis)

	loadings		
Item	Iran	Malaysia	difference
DOI3	0.897	0.921	0.024
DOI2	0.957	0.924	0.033
DOI1	0.917	0.9	0.017

4.14.5 Intention to form alliance (I2FA)

The results of the configural invariance for intention to alliance are presented in table (next two). As it is shown the resultant model of intention to alliance achieves good fit and all loading are significant.

Table 4.26 Intention to Form Alliance Loadings (Multi-group Analysis)

	loadings		
Item	Iran	Malaysia	difference
IA5	0.707	0.795	0.088
IA4	0.828	0.899	0.071
IA3	0.725	0.87	0.145
IA2	0.635	0.826	0.191
IA1	0.754	0.876	0.122

Table 4.27 Intention to Form Alliance Configural Invariance (Model fit)

fit index	
X2/df	6.703
CFI	0.941
RMSEA	0.123

The result of the chi-square difference test is insignificant $\chi^2 = 2.330$ and $p > 0.05$ (as it is shown in table below). Thus it can be concluded that market orientation construct is invariant across groups.

Table 4.28 Intention to Form Alliance Group Invariant Test

Model	DF	CMIN	P	NFI	IFI	RFI	TLI
				Delta-1	Delta-2	rho-1	rho2
GROUP INVARIANT	4	2.330	.675	.002	.002	-.035	-.036

4.15 Overall measurement model

The results of the configural invariance for overall measurement model are presented in table (next two). As it is shown the resultant model achieves good fit and all loading are significant.

Table 4.29 Overall Measurement Model Loadings (Multi-group Analysis)

	loadings		
item	Iran	Malaysia	difference
MO13	0.736	0.694	0.042
MO11	0.738	0.646	0.092
MO9	0.697	0.667	0.03
MO8	0.691	0.69	0.001
MO7	0.753	0.749	0.004
MO6	0.738	0.7	0.038
MO5	0.753	0.809	0.056
MO4	0.694	0.75	0.056
MO3	0.604	0.627	0.023
MO2	0.674	0.699	0.025

EO1	0.73	0.822	0.092
EO2	0.824	0.782	0.042
EO3	0.84	0.858	0.018
EO4	0.793	0.829	0.036
EO5	0.832	0.879	0.047
EO6	0.825	0.756	0.069
INO1	0.831	0.859	0.028
INO2	0.885	0.899	0.014
INO3	0.584	0.772	0.188
DOI3	0.898	0.914	0.016
DOI2	0.953	0.931	0.022
DOI1	0.919	0.901	0.018
I2FA5	0.718	0.806	0.088
I2FA4	0.797	0.888	0.091
I2FA3	0.775	0.876	0.101
I2FA2	0.616	0.825	0.209
I2FA1	0.736	0.874	0.138

Table 4.30 Overall Measurement Model Configural Invariance (Model fit)

fit index	
X2/df	1.984
CFI	0.910
RMSEA	0.051

The result of the chi-square difference test is insignificant $\chi^2 = 17.763$ and $p > 0.05$ (as it is shown in table below). Thus it can be concluded that overall measurement model is invariant across groups. If the hypothesis of equal variance is not rejected, i.e., $p > 0.05$. It provides strong evidence that the differences between parameters of subgroups are due to chance (Marsh, 1987).

Table 4.31 Overall Measurement Model Group Invariant Test

Model	DF	CMIN	P	NFI	IFI	RFI	TLI
				Delta-1	Delta-2	rho-1	rho2
GROUP INVARIANT	22	17.763	.720	.002	.002	-.004	-.004

Now we have to test for the path differences in the measurement model. This can be done by the critical ratio test for group differences among the regression weights. By this analysis it can be seen that of whether the pairwise comparisons (Iran vs. Malaysia) for regression weights are significant or not.

Table 4.32 Regression Weights Pairwise Comparison (Measurement Model)

Path name	Critical Ratio	Path name	Critical Ratio
I11	-0.958	I16	-0.535
I9	0.006	I15	-0.676
I8	0.142	I14	-1.949
I7	-0.138	I19	0.118
I6	-0.342	I20	1.892
I5	0.969	I22	-0.87
I4	0.426	I21	-0.357
I3	0.65	I26	-0.163
I2	0.642	I25	0.188
I18	-1.681	I24	1.035
I17	-1.048	I23	0.782

The cut-off point for critical ratio is $C.R. > \pm 1.96$, $p < .05$. According to Garson (2005), in random sample variables with standard normal distributions, estimates with critical ratios more than 1.96 are significant at the .05 level. As it is presented in above Table none of the paths are significantly different from each other. The largest C.R. of the for group differences among the regression weights is 1.94 and the smallest C.R. is 0.163.

4.16 SEM

In this section, as a second step of two-stage process suggested by Anderson and Gerbing (1988), the structural equation model was estimated for the constructs jointly with the measurement model. The structural model assessed in this stage is not identical to the measurement model because the structural model posits directional causal relationships between the latent constructs. Before evaluating the structural model, the results are first examined for offending estimates (Byrne, 1998; Hair et al., 1995; Hatcher, 1994). Offending estimates were assessed to see if there were any unreasonable values, i.e., nonsensical or theoretically inconsistent estimates or other anomalies by examining the standardized parameter estimates exceeding 1, very large standard errors, and negative error variances for the path coefficients (Bentler, 1995; Jöreskog & Sörbom, 1989, 1993). The results revealed that parameter estimates for the relationships between latent variables had the right sign and size. The parameter estimates were in consistent with the underlying theory and a priori specifications: the largest standard error in size was .21; all error variances showed positive signs.

Once the measurement model for both Iran and Malaysia has been confirmed, the fit of the structural path model posited for these two groups can be evaluated and compared. The factor structure confirmed in the measurement model will be used as the foundation for the path model. Multi-group analysis will then be employed to apply this model simultaneously

to the Iran and Malaysia samples. The question to be examined is whether the pattern of structural relationships hypothesized in the path model follows the same dynamics for Iran and Malaysia.

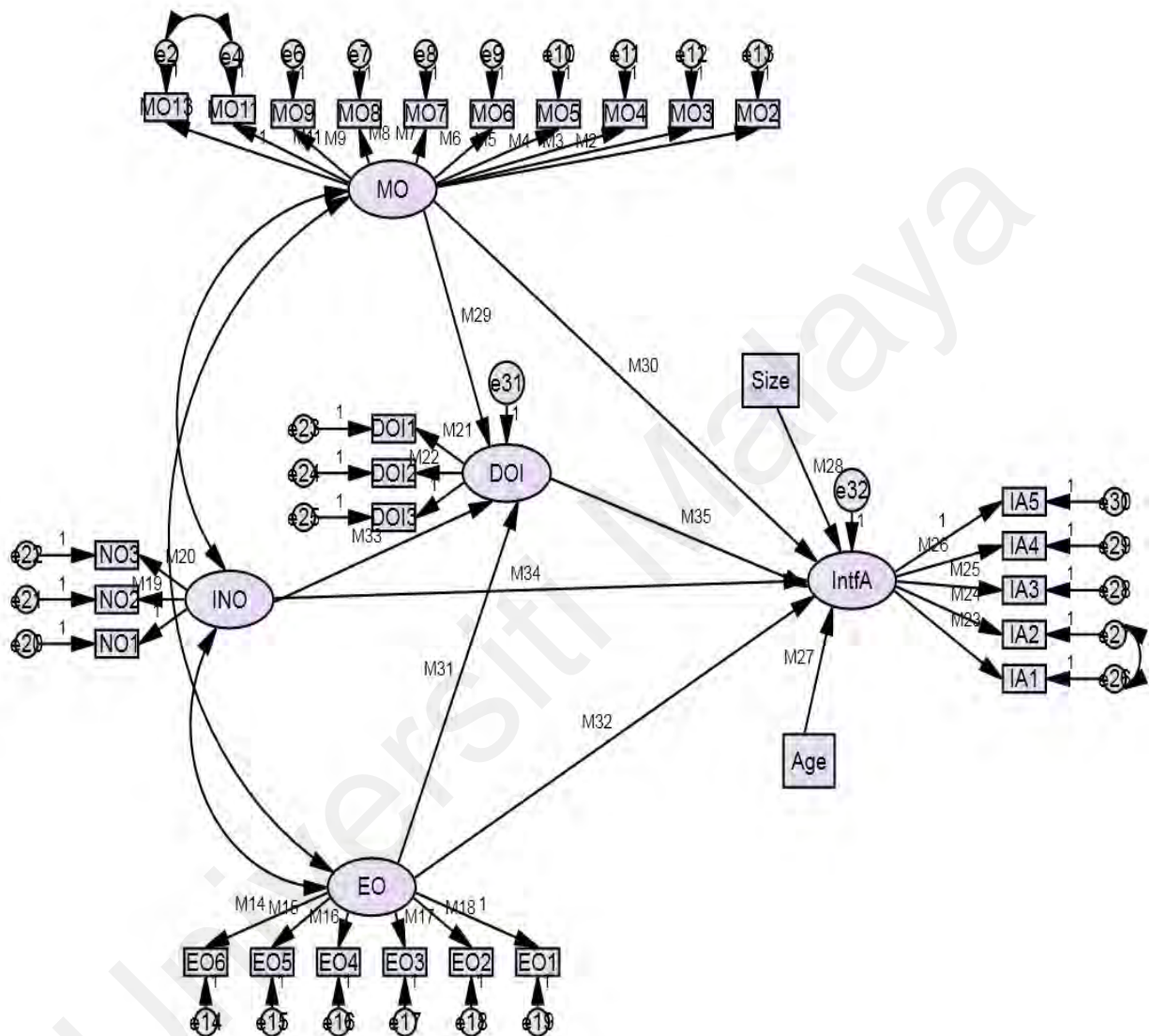


Figure 4.24 Hypothesized Structural Equation Model

The results of the configural invariance for overall measurement model are presented in table below.

Table 4.33 Configural Invariance Test of Hypothesized Model

fit index	
X ² /df	1.923
CFI	0.902
RMSEA	0.05
IFI	0.902
TLI	0.895

One fit of the model was assessed by taking the ratio of the χ^2 and its degrees of freedom, i.e., normed Chi-square, (Wheaton et al., 1977). When calculated, the result (1.923) revealed that the value of normed χ^2 was below the acceptable level of 5 (Wheaton et al., 1977). It should be noted, however, that this criterion for model fit has conflicting standards of interpretation (Medsker et al., 1994); for instance, normed χ^2 of less than 2 or 3 have been interpreted as indicating a good fit to the data (Carmines & McIver, 1981) as have ratios between 2 and 5 (Kelloway, 1998), with ratio less than 2 indicating being over fitted thereby capitalizing on chance (Hair, 1995). It has also shown that normed χ^2 is affected by sample size, and that the same model may generate significantly different ratios with small samples than with large samples (Marsh et al., 1988); the sample size of current analysis is enough, which might impinge on the value of normed χ^2 .

The RMSEA represents a close approximation of fit relative to the degrees of freedom that could be expected if the model were estimated in the population, not just for the sample drawn for the estimation (Steiger, 1990). Steiger (1990) suggests that values below .10 indicate a good fit to the data, values below .05 a very good fit to the data and values below .01 indicate an outstanding fit to the data. On the other hand, Browne and Cudeck (1993) suggest that values less than .05 indicate good fit and values as high as .08 represent

reasonable errors of approximation in the population. MacCallum et al. (1996) suggest midrange cutpoints: RMSEA values ranging from .08 to .10 indicate mediocre fit and those greater than .10 indicates poor fit. The resulted value of RMSEA (.05) presents a very good fit and possibility to determine accurately the degree of fit in the population.

Since CFI value is 0.902 it lays in the acceptable range. The CFI (Bentler, 1989) is generally preferable to the GFI or NFI.

Table 4.34 Variant and Invariant group chi-square fit

Model	NPAR	CMIN	DF	P
GROUP INVARIANT	109	1464.956	761	.000
GROUP VARIANT	140	1411.881	730	.000

The result of the chi-square difference test is significant (as it is shown in table below). Thus it can be concluded that overall SEM model is variant across groups.

Table 4.35 Iran and Malaysia Model Comparison

Model	Δ DF	Δ CMIN	P-value	NFI	IFI	RFI	TLI
				Delta-1	Delta-2	rho-1	rho2
GROUP INVARIANT	31	53.075	.008	.007	.007	-.001	-.001

The examination of goodness-of-fit indexes provided acceptable size of values, which were indicative of good fit for the hypothesized model. A brief point needs to be addressed before I draw any safe conclusions. Sobel and Bohrnstedt (1985) posited that exclusive reliance on goodness-of-fit indices is unacceptable. Indeed, fit indices provide no guarantee whatsoever that a model is useful and can in no way reflect the extent to which the model is plausible. In this sense, Byrne (1998, p. 119) contended that “assessment of model adequacy must be

based on multiple criteria that take into account theoretical, statistical, and practical consideration.” Adhering to this caveat, combined with theoretical considerations and statistical implications, I concluded that the findings generally provided support for hypothesized model tested. The hypothesized model schematically portrayed in Figure 6-4 was therefore retained as this study’s final model.

Now we have to test for the path differences in the SEM model. This can be done by the critical ratio test for group differences among the regression weights. By this analysis it can be seen that of whether the pairwise comparisons (Iran vs. Malaysia) for regression weights are significant or not. The critical ratios of the each path are represented in table below.

Table 4.36 Iran and Malaysia Regression Weights Comparison

IRAN/MALAYS IA	INO - >DOI	INO- >IA	MO- >DOI	MO - >IA	DOI - >IA	EO- >DOI	EO ->IA	AGE - >IA	SIZE - >IA
INO ->DOI	-2.356	-3.16	-1.812	-2.201	-2.189	-2.98	-1.761	-0.705	-2.035
INO->IA	-1.865	-2.697	-1.354	-1.665	-1.636	-2.55	-1.134	0.131	-1.419
MO->DOI	1.486	1.423	1.439	1.914	2.066	0.757	2.657	3.948	2.581
MO ->IA	0.048	-0.281	0.21	0.403	0.516	-0.677	1.095	2.425	0.951
DOI ->IA	-1.047	-1.684	-0.68	-0.765	-0.693	-1.773	-0.123	1.279	-0.35
EO->DOI	0.264	-0.004	0.389	0.612	0.724	-0.433	1.267	2.486	1.138
EO ->IA	-0.82	-1.349	-0.51	-0.528	-0.449	-1.527	0.099	1.404	-0.099
AGE ->IA	-1.511	-2.327	-1.04	-1.271	-1.224	-2.236	-0.664	0.768	-0.944
SIZE ->IA	-1.897	-2.815	-1.356	-1.7	-1.676	-2.602	-1.152	0.202	-1.464

The ratios on the diagonal of the table are related to the t statistic for the path that is mentioned in the related row or column. The cut-off point for critical ratio is C.R. $> \pm 1.96$, $p < .05$. As it is presented in Table the paths which connecting innovation orientation to the degree of internationalization and intention to alliance are significantly different from each other.

The SEM method allows for simultaneous testing of all hypothesized relationships and provides coefficients representing both direct and indirect effects. This method also minimizes the impact of measurement errors on the estimation of model parameters.

Table 4.37 Hypothesized Model Regression Weights (Iran and Malaysia)

PATH			MALAYSIA	P	IRAN	P
DOI	←-	MO	0.28	***	0.252	***
DOI	<---	INO	0.236	0.008	-0.023	0.745
DOI	<---	EO	0.365	0.058	0.51	***
IntfA	<---	INO	0.374	***	0.072	0.324
IntfA	<---	MO	0.26	0.01	0.392	***
IntfA	<---	DOI	0.251	0.009	0.196	0.006
IntfA	<---	EO	0.19	0.033	0.2	0.009
IntfA	<---	age	0.042	0.481	0.109	0.023
IntfA	<---	size	0.16	0.009	0.062	0.194
MO	<-->	INO	0.545	***	0.652	***
EO	<-->	INO	0.342	***	0.448	***
MO	<-->	EO	0.579	***	0.685	***

Table 4.38 Hypotheses Test Result

Hypothesis	Iran	Malaysia
H1: Market Orientation is likely to positively influence alliances formation intentions	Supported	Supported
H2: Entrepreneurial Orientation is likely to positively influence alliances formation intentions.	Supported	Supported
H3: Innovation Orientation is likely to positively influence alliances formation intentions.	Not- Supported	Supported
H4: Degree of Internationalization is likely to positively influence alliances formation intentions.	Supported	Supported
H5: Market Orientation is likely to positively influence Degree of Internationalization.	Supported	Supported
H6: Entrepreneurial Orientation is likely to positively influence Degree of Internationalization.	Supported	Supported

H7: Innovation Orientation is likely to positively influence Degree of Internationalization.	Not- Supported	Supported
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4.16.1 Mediation analysis

An increasingly popular method of testing the indirect effect is bootstrapping (Bollen & Stine, 1990; Shrout & Bolger, 2002). Bootstrapping is a non-parametric method based on resampling with replacement which is done many times, e.g., 2000 times. From each of these samples the indirect effect is computed and a sampling distribution can be empirically generated. Because the mean of the bootstrapped distribution will not exactly equal the indirect effect a correction for bias is usually made. With the distribution, a confidence interval, a p value, or a standard error can be determined. Very typically a confidence interval is computed and it is checked to determine if zero is in the interval. If zero is not in the interval, then the researcher can determine p value and be confident that the indirect effect is different from zero. The results of the mediation analysis for Iran and Malaysia are represented in table below:

Table 4.39 Mediation Analysis (Iran)

Hypothesis Iran	Direct beta without Mediator	Direct beta with Mediator	Indirect Beta	Mediation type observed
MO	.494 ***	.392(001)	.098(.009)	Partial mediation
INO	.067ns	.072ns	-.005ns	No mediation
EO	.246(001)	.200(007)	.051(.012)	Partial mediation

Table 4.40 Mediation Analysis (Malaysia)

Hypothesis Malaysia	Direct beta without Mediator	Direct beta with Mediator	Indirect Beta	Mediation type observed
MO	325(003)	.260(.037)	.059ns	No mediation
INO	422***	.374(.002)	.070(.030)	Partial mediation
EO	282(002)	.195(.031)	.091(.024)	Partial mediation

Table 4.41 Mediation Hypotheses Test Results

Hypothesis	Iran	Malaysia
H8: Degree of Internationalization mediates the relationship between market orientation and alliances formation intentions	Supported	Not- Supported
H9: Degree of Internationalization mediates the relationship between entrepreneurial orientation and alliances formation intentions.	Supported	Supported
H10: Degree of Internationalization mediates the relationship between innovation orientation and alliances formation intentions.	Not- Supported	Supported

In hierarchical regression researcher has the option of entering predictor variables into the regression analysis one at a time or in steps. This allows the researcher to see the increase in the variance accounted for when the second predictor is added. This called the R-square change, which is just the improvement in R-square when the second predictor is added. To test the whether all the predictors together explain the variance of the Intention to form alliance better than explaining alone we run the hierarchical regression. At the first step the scores of the latent variables imputed from the measurement models and in the second step the hierarchical regression has conducted.

Table 4.42 R-Square Change Test

Whole Sample	First model		Second model		Third model		Fourth model	
	beta	p-value	beta	p-value	beta	p-value	beta	p-value
Size	.157	.001	.102	.001	.106	.000	.088	.002
Age	.248	.000	.078	.010	.080	.006	.052	.066
MO			.709	.000	.553	.000	.401	.000
EO					.199	.000	.212	.000
INO							.186	.000
R ²	.097		.629		.656		.685	
R ² change			.532		.027		.029	

As it can be seen in the results including the other predictors to the model can improve the predictability of the model. For instance adding EO in the third model increased in the variance accounted for the variables by 2.7 per cent.

4.17 IRAN

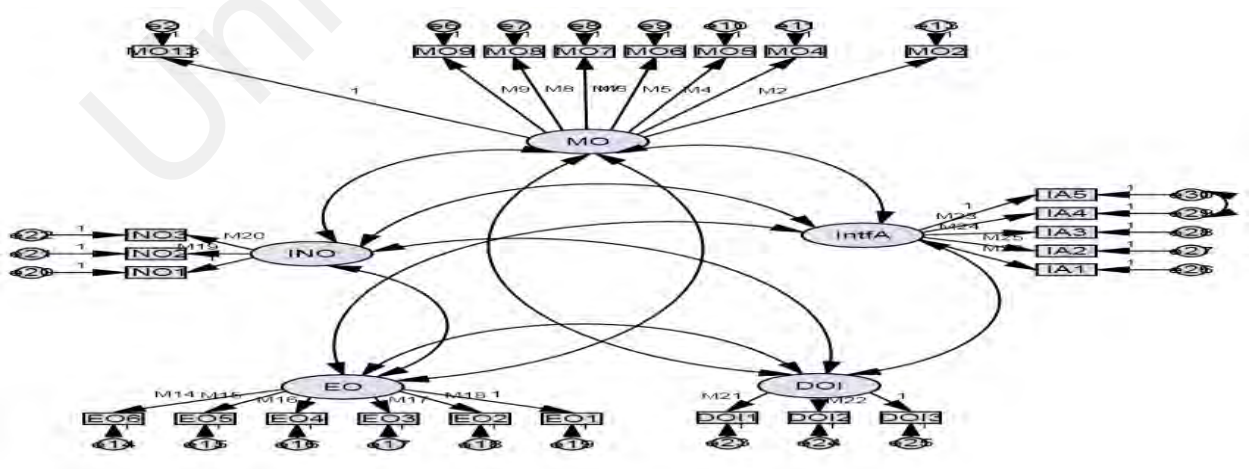


Figure 4.25 Iran Measurement Model

The results of the configural invariance are presented in table (next two). As it is shown the resultant model achieves good fit and all loading are significant.

Table 4.43 Measurement Model Regression Weights for High and Low ED (Iran)

			HIGH	LOW	DIFFERENCE
MO13	<---	MO	0.746	0.711	0.035
MO9	<---	MO	0.642	0.723	0.081
MO8	<---	MO	0.668	0.727	0.059
MO7	<---	MO	0.728	0.788	0.06
MO6	<---	MO	0.74	0.761	0.021
MO5	<---	MO	0.841	0.661	0.18
MO4	<---	MO	0.69	0.656	0.034
MO2	<---	MO	0.669	0.622	0.047
EO1	<---	EO	0.751	0.697	0.054
EO2	<---	EO	0.816	0.826	0.01
EO3	<---	EO	0.826	0.852	0.026
EO4	<---	EO	0.761	0.829	0.068
EO5	<---	EO	0.809	0.85	0.041
EO6	<---	EO	0.8	0.845	0.045
INO1	<---	INO	0.81	0.833	0.023
INO2	<---	INO	0.868	0.908	0.04
INO3	<---	INO	0.622	0.549	0.073
DOI3	<---	DOI	0.873	0.9	0.027
DOI2	<---	DOI	0.921	0.966	0.045
DOI1	<---	DOI	0.854	0.968	0.114
IA5	<---	IA	0.677	0.642	0.035
IA4	<---	IA	0.784	0.661	0.123
IA3	<---	IA	0.859	0.748	0.111
IA2	<---	IA	0.626	0.613	0.013
IA1	<---	IA	0.761	0.742	0.019

Table 4.44 Configural Invariance Test for High and Low ED (Iran)

fit index	
X2/df	1.792
CFI	0.911
RMSEA	0.053

The result of the chi-square difference test is insignificant (as it is shown in table below).

Thus it can be concluded that overall measurement model is invariant across groups.

Table 4.45 Group Comparison for High and Low ED (Iran)

Model	DF	CMIN	P	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
GROUP INVARIANT	20	21.336	.378	.004	.004	-.003	-.003

Now we have to test for the path differences in the measurement model. This can be done by the critical ratio test for group differences among the regression weights. By this analysis it can be seen that of whether the pairwise comparisons (High-ED vs. Low-ED) for regression weights are significant or not.

Table 4.46 Regression Weights Comparison for High and Low ED

Path	CR	Path	CR
I9	1.002	I15	1.146
I8	1.197	I14	0.6
I7	0.947	I19	0.184
I6	0.033	I20	-0.677
I5	-1.605	I22	-0.742
I4	0.041	I21	0.7
I2	-0.536	I23	-1.711
I18	0.505	I24	-0.316

I17	0.679	I25	0.007
I16	1.211	I26	-0.206

The cut-off point for critical ratio is $C.R. > \pm 1.96$, $p < .05$. As it is presented in above Table none of the paths are significantly different from each other.

4.17.1 SEM

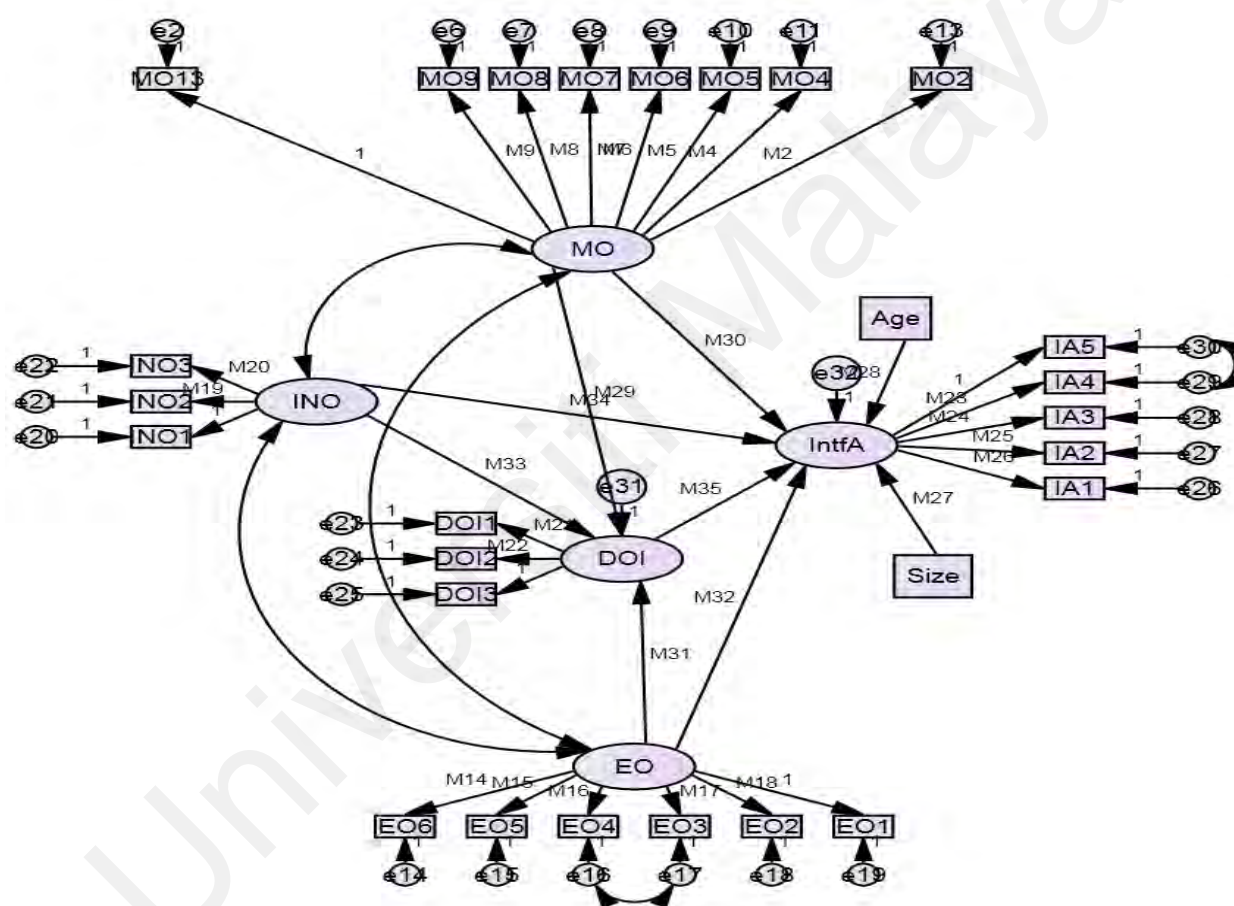


Figure 4.26 Hypothesized Structural Model for Iran

The results of the configural invariance for overall model are presented in table below. As it is shown the resultant model achieves good fit.

Table 4.47 Model Fit (Iran)

fit index	
X2/df	1.721
CFI	0.906
RMSEA	0.051

Table 4.48 Hypotheses Test Results (Environmental Dynamism)

Hypothesis	
H'1: Market Orientation is likely to positively influence alliances formation intentions	Supported
H'2: Entrepreneurial Orientation is likely to positively influence alliances formation intentions.	Supported
H'3: Innovation Orientation is likely to positively influence alliances formation intentions.	Not- Supported
H'4: Degree of Internationalization is likely to positively influence alliances formation intentions.	Supported
H'5: Market Orientation is likely to positively influence Degree of Internationalization.	Supported
H'6: Entrepreneurial Orientation is likely to positively influence Degree of Internationalization.	Supported
H'7: Innovation Orientation is likely to positively influence Degree of Internationalization.	Not- Supported

4.17.2 Mediating test

Typically a confidence interval is computed and it is checked to determine if zero is in the interval. If zero is not in the interval, then the researcher can determine p value and be confident that the indirect effect is different from zero. The results of the mediation analysis for Iran are represented in table below:

Table 4.49 Mediation Test Results for Iran

Hypothesis	Direct beta without Mediator	Direct beta with Mediator	Indirect Beta	Mediation type observed
Iran				
MO	.494 ***	.392(001)	.098(.009)	Partial mediation
INO	.067ns	.072ns	-.005ns	No mediation
EO	.246(001)	.200(007)	.051(.012)	Partial mediation

Table 4.50 Iran High and Low ED Chi-Square Test

Model	NPAR	CMIN	DF	P
GROUP INVARIANT	103	1123.554	653	.000
GROUP VARIANT	132	1073.621	624	.000

The result of the chi-square difference test is significant (as it is shown in table below). Thus it can be concluded that overall SEM model is variant across groups.

Table 4.51 High and Low ED Model Comparison (Iran)

Model	Δ DF	Δ CMIN	P-value	NFI Delta-1	IFI Delta-2	RFI rho-1	TLI rho2
GROUP INVARIANT	29	49.933	.009	.009	.010	.000	.000

Table 4.52 High and Low ED Path Differences (Iran)

			HIGH	P	LOW	P
DOI	<---	MO	0.468	***	0.489	***
DOI	<---	INO	0.001	0.994	-0.065	0.533
DOI	<---	EO	0.281	0.004	0.283	0.013
IA	<---	MO	0.141	0.247	0.499	0.005
IA	<---	INO	0.053	0.569	0.119	0.308
IA	<---	EO	0.203	0.025	0.256	0.049
IA	<---	age	0.131	0.03	0.058	0.432
IA	<---	size	0.048	0.417	0.016	0.823
IA	<---	DOI	0.542	***	-0.079	0.462

Now we have to test for the path differences in the SEM model. This can be done by the critical ratio test for group differences among the regression weights. By this analysis it can be seen that of whether the pairwise comparisons (Iran vs. Malaysia) for regression weights are significant or not. The critical ratios of the each path are represented in table below.

Table 4.53 High and Low ED Critical Ration for Differences (Iran)

High/low	MO >IA	MO- >DOI	INO- >IA	INO >DOI	EO- >DOI	EO >IA	AGE >IA	SIZE >IA	DOI >IA
MO >IntfA	1.654	-0.45	2.169	2.17	0.213	1.183	1.656	2.228	-0.791
MO- >DOI	2.394	0.484	2.821	2.849	1.1	2.004	2.429	2.905	0.281
INO- >IntfA	-1.18	-2.954	-0.479	-0.826	-2.396	-1.745	-1.492	-0.909	-3.614
INO >DOI	-0.083	-2.269	0.658	0.438	-1.604	-0.732	-0.326	0.416	-3.011
EO->DOI	1.541	-0.348	2.019	1.978	0.258	1.117	1.514	2.01	-0.637
EO >IntfA	0.826	-1.31	1.429	1.343	-0.645	0.288	0.739	1.372	-1.803
AGE >IntfA	-0.441	-2.743	0.419	0.12	-2.06	-1.21	-0.826	0.067	-3.726
SIZE >ntfIA	-0.773	-2.995	0.117	-0.257	-2.334	-1.554	-1.231	-0.351	-4.021
DOI >IntfA	-1.35	-3.383	-0.453	-0.928	-2.769	-2.104	-1.87	-1.071	-4.393

The ratios on the diagonal of the table are related to the t statistic for the path that is mentioned in the related row or column. The cut-off point for critical ratio is C.R. $> \pm 1.96$, $p < .05$. As it is presented in Table the path which connecting the degree of internationalization to the intention to alliance is significantly different from each other. In addition the path which connecting the market orientation to the intention to alliance is weakly different from each other in two groups.

Table 4.54 Moderation Hypotheses Test Results (Iran)

Hypothesis	Iran
H8: The degree of internationalization mediates the association between market orientation and intentions to form alliances.	Supported
H9: The degree of internationalization mediates the link between entrepreneurial orientation and intentions to form alliances.	Supported
H10: The degree of Internationalization mediates the correlation between the innovation orientation and intentions to form alliances.	Not- Supported
H11: The higher level of environmental dynamism strengthens the impact of market orientation on alliances formation intentions	Supported
H12: The higher level of environmental dynamism strengthens the impact of entrepreneur orientation on alliances formation intentions	Not- Supported
H13: The higher level of environmental dynamism strengthens the impact of innovation orientation on alliances formation intentions.	Not- Supported
H14: The higher level of environmental dynamism strengthens the impact of degree of internationalization on alliances formation	Supported

In hierarchical regression researcher has the option of entering predictor variables into the regression analysis one at a time or in steps. This allows the researcher to see the increase in the variance accounted for when the second predictor is added. This called the R-square change, which is just the improvement in R-square when the second predictor is added. To test the whether all the predictors together explain the variance of the Intention to form alliance better than explaining alone we run the hierarchical regression. At the first step the

scores of the latent variables imputed from the measurement models and in the second step the hierarchical regression has conducted.

The results of the analysis are as follows:

Table 4.55 R-Square Change Test for Iran

Iran	First model		Second model		Third model		Fourth model	
	beta	p-value	beta	p-value	beta	p-value	beta	p-value
Size	0.029	0.521	0.017	0.568	.026	.371	.025	.380
Age	0.229	0.000	0.062	0.048	.060	.043	.055	.066
MO			0.448	0.000	.324	.000	.294	.000
EO					.211	.000	.215	.000
INO							.044	.219
R ²	0.080		0.594		0.631		0.632	
R ² change			.512		.037		.002	

As it can be seen in the results including the other predictors to the model can improve the predictability of the model. For instance adding EO in the third model increased in the variance accounted for the variables by 3.7 percent.

4.18 MALAYSIA

The structural equation model has been tested using Partial Least Squares (PLS) method, a SEM technique that is appropriate for assessing complex predictive models. In contrast to covariance-based approaches like LISREL or AMOS, PLS makes no distributional assumptions and has fewer demands in sample size and scales. The data set fulfils these requirements. PLS is particularly suitable if a more explorative analysis is preferred. This is

true in our case since there is no strong theoretical foundation on the actual impact of the factors on the strategy success. The component-based, structured equation modeling tool smart-PLS version 2.0.M3 was used for the analysis.

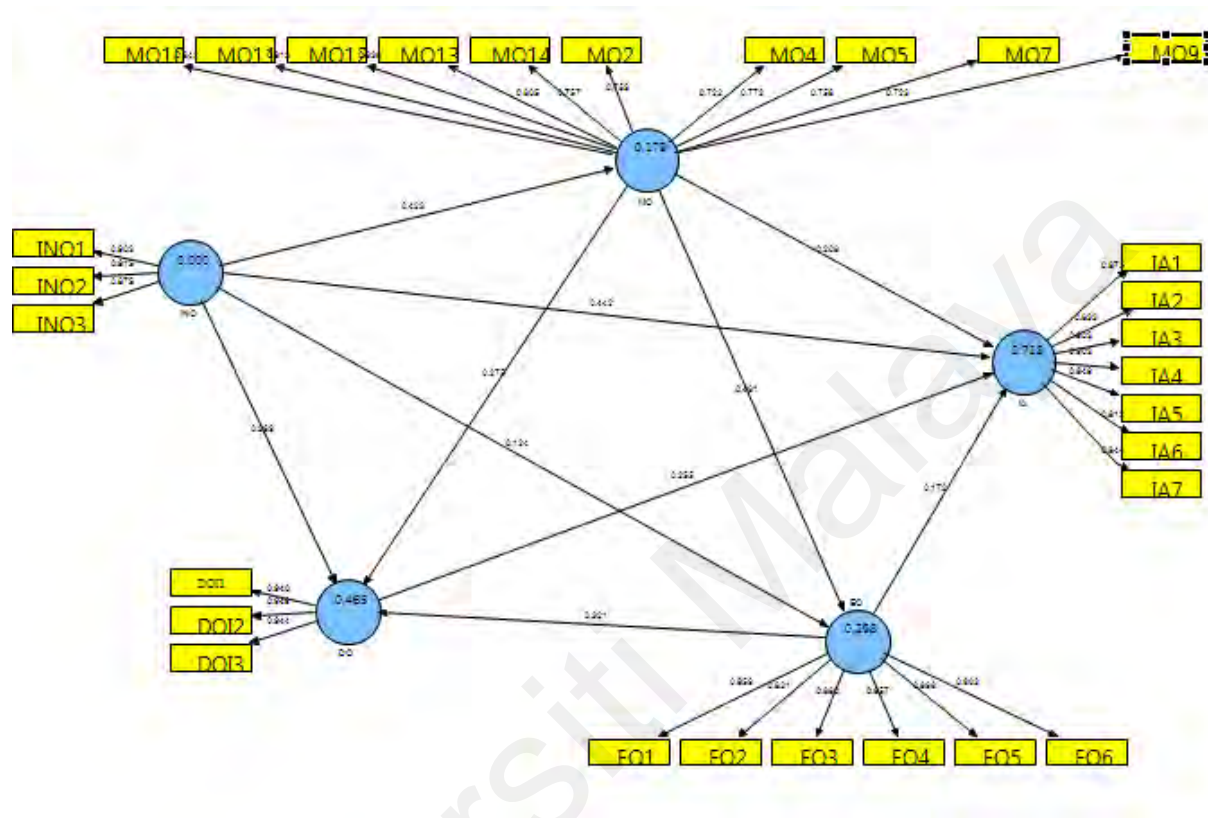


Figure 4.27 Overall Measurement Model (Malaysia)

The measurement model was tested for various validity and reliability properties in order to assess whether the hypotheses fit the empirical data or not. Validity measures the degree to which a scale accurately measures the constructs under investigation, and reliability measures the stability of the scale. Convergent validity describes the extent to which indicators measuring a construct converge together and measure that single construct (so-called unidimensionality). Convergent validity is adequate when constructs have an average variance extracted (AVE) of at least 0.5. It indicates that each of the factors explains more than 0.5 of the variation in the observed variables. All in our measurement model exceed that value (cf. Table below). Moreover, items should load above 0.7 on their corresponding

factors. In our case, all measurement items - except item MO1, MO3, MO6, MO8-, have significant loadings above that threshold. Consequently, they were dropped and not included in the remaining analyses. Table below lists the factor loadings and corresponding t-statistics. All loadings are significant at the 0.001 level. The significance tests were conducted using the bootstrap routine with 5000 samples.

Table 4.56 Measurement Model Regression Weights (Malaysia)

	Original Sample (O)	T Statistics (O/STERR)
DOI1 <- DO	0.9397	62.1092
DOI2 <- DO	0.949	61.7435
DOI3 <- DO	0.9443	58.9524
EO1 <- EO	0.8587	22.8453
EO2 <- EO	0.8214	17.8632
EO3 <- EO	0.8804	39.9385
EO4 <- EO	0.857	25.0327
EO5 <- EO	0.8982	38.0564
EO6 <- EO	0.8027	16.6093
IA1 <- IA	0.8749	29.141
IA2 <- IA	0.8333	17.7095
IA3 <- IA	0.9034	56.7826
IA4 <- IA	0.9034	42.6091
IA5 <- IA	0.8495	25.8297
IA6 <- IA	0.8119	17.7685
IA7 <- IA	0.8441	22.3397
INO1 <- INO	0.9033	35.1371

INO2 <- INO	0.9151	32.6772
INO3 <- INO	0.8747	30.1909
MO10 <- MO	0.8424	22.3226
MO11 <- MO	0.8126	18.2687
MO12 <- MO	0.836	21.4069
MO13 <- MO	0.8052	18.1762
MO14 <- MO	0.7569	15.3215
MO2 <- MO	0.7527	9.9015
MO4 <- MO	0.7222	12.9817
MO5 <- MO	0.7723	17.0509
MO7 <- MO	0.7582	15.6221
MO9 <- MO	0.7228	12.2957

In addition, we assessed convergent validity by examining composite reliability (CR) and average variance extracted (AVE) from the measures. The composite reliability for all measures (except EXP) varies between 0.93 and 0.96, i.e. well above the acceptable limit of 0.70. Table below depicts the CR values for all constructs in the second column.

Discriminant validity describes the degree to which the indicators of theoretically distinct concepts are unique from each other. It is confirmed when the AVE of each construct is greater than the variance shared between the construct and other constructs in the model.

Table 4.57 Reliability of Measurement Model (Malaysia)

	AVE	Composite Reliability	Cronbachs Alpha
DO	0.8918	0.9611	0.9393
EO	0.7287	0.9415	0.9255

IA	0.7408	0.9523	0.9414
INO	0.8062	0.9258	0.8796
MO	0.6072	0.9391	0.928

Table below depicts the correlation matrix, with correlations among constructs and the square root of AVE on the diagonal for each reflective construct. The AVE for each construct is larger than the correlation of that construct with all other constructs of the model.

Table 4.58 Discriminant Validity (Malaysia)

	DO	EO	IA	INO	MO
DO	0.944352				
EO	0.5563	0.853639			
IA	0.6842	0.5699	0.860697		
INO	0.4908	0.3279	0.7113	0.897886	
MO	0.5604	0.534	0.6294	0.423	0.77923

Finally, all measurement items load on their constructs as expected, i.e. have higher loadings on their assigned factors (grey marked in Table below) than on any other construct. Table Below lists all cross loadings.

These results suggest that all constructs used in this analysis are acceptable and reliable.

Table 4.59 Cross Loading of Malaysia Model

	DO	EO	IA	INO	MO
DOI1	0.9397	0.5154	0.6454	0.4683	0.5413
DOI2	0.949	0.5378	0.6794	0.462	0.5524

DOI3	0.9443	0.5224	0.6113	0.4601	0.4916
EO1	0.5125	0.8587	0.4877	0.2901	0.4526
EO2	0.3843	0.8214	0.3858	0.1439	0.4728
EO3	0.546	0.8804	0.5873	0.4069	0.4608
EO4	0.515	0.857	0.4718	0.2571	0.4081
EO5	0.475	0.8982	0.5319	0.3105	0.5146
EO6	0.3868	0.8027	0.4181	0.2224	0.4273
IA1	0.6436	0.5082	0.8749	0.6238	0.5271
IA2	0.5821	0.4869	0.8333	0.6093	0.4536
IA3	0.6339	0.5542	0.9034	0.6195	0.5761
IA4	0.6398	0.4731	0.9034	0.5853	0.6026
IA5	0.5539	0.5136	0.8495	0.6307	0.6114
IA6	0.5194	0.44	0.8119	0.6671	0.5035
IA7	0.5404	0.4498	0.8441	0.5494	0.5065
INO1	0.423	0.263	0.6496	0.9033	0.3634
INO2	0.4691	0.2538	0.6486	0.9151	0.3739
INO3	0.4291	0.3649	0.6176	0.8747	0.4011
MO10	0.3911	0.4383	0.4361	0.2611	0.8424
MO11	0.4146	0.3783	0.4737	0.2262	0.8126
MO12	0.4358	0.405	0.4521	0.1853	0.836
MO13	0.4012	0.4133	0.3797	0.284	0.8052
MO14	0.3757	0.4345	0.3807	0.2473	0.7569
MO2	0.5123	0.3832	0.4969	0.337	0.7527
MO4	0.4477	0.4281	0.5853	0.4786	0.7222

MO5	0.497	0.4698	0.6752	0.5132	0.7723
MO7	0.3999	0.4242	0.4737	0.3018	0.7582
MO9	0.4322	0.3473	0.4199	0.3262	0.7228

Due to the acceptable level of validity and reliability (the hypotheses were tested by PLS. The test of the structural model includes estimates of the path coefficients, which indicate the strengths of the relationships between the dependent and independent variables. In addition, the explanatory power of the structural model can be evaluated by looking at the squared multiple correlations (R^2 values), which represent the amount of variance explained by the independent variables. Therefore, the R^2 values and the path coefficients (loadings and corresponding t-values, i.e. significance) indicate how the data support the hypothesized model and explain the predictive power of the model. According to Geffen et al., no generalizable statement can be made about acceptable threshold values of R^2 . Whether this determination coefficient is deemed acceptable or not rather depends on individual study. However, the larger R^2 is, the larger the percentage of variance explained. Whereas Falk and Miller consider 0.1 as indication of substantive explanatory power, Chin regards for example a value of 0,33 as moderate. In our case, all R^2 values (0.467/0.838) exceed the 0.2 level (cf. Fig. 4.28); consequently we regard this quality criterion as fulfilled.

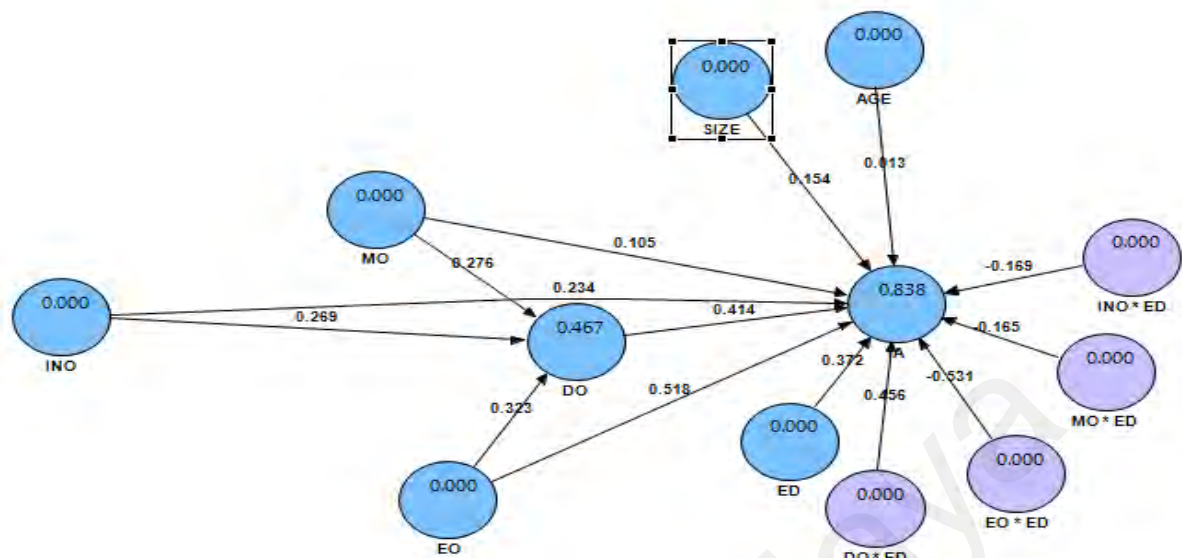


Figure 4.28 Hypothesized Structural Model (Malaysia)

Only few recommendations exist for adequate path coefficients. According to Lohmueller (1989) path coefficients with values larger than 0.1 indicate that the corresponding hypotheses are supported. In addition, the path coefficients should be significant and directionally consistent with expectations. Jackknife and bootstrap procedures are used in PLS applications to obtain estimates for the standard errors of the parameters estimates, which are potentially subject to biases (Chin, W. W., 1998). In general, both the jackknife and bootstrap standard errors should converge. However, since jackknife is viewed as less efficient than the more common bootstrap (Chin, W. W., 1998), the latter was used in testing the causal model. The bootstrapping approach was applied to estimate the significance (t-value) of the paths using 5000 samples which were drawn from the complete sample. The results confirm the majority of hypotheses —except the hypotheses AGE → IA, EO * ED → IA, MO → IA, and MO * ED → IA which do not meet the quality criteria. Table below illustrates the results of the PLS analysis (path coefficients, their significance levels). Causal relationships (and factors) which could not be confirmed are highlighted in grey.

Table 4.60 Hypothesized Model Regression Weights (Malaysia)

	Original Sample (O)	T Statistics (O/STERR)
AGE -> IA	0.013	0.2824
DO -> IA	0.4142	4.2591
DO * ED -> IA	0.4561	4.1865
ED -> IA	0.3718	1.3313
EO -> DO	0.3229	2.543
EO -> IA	0.5178	1.866
EO * ED -> IA	-0.5313	1.4321
INO -> DO	0.269	2.7734
INO -> IA	0.2336	3.2844
INO * ED -> IA	-0.169	2.1574
MO -> DO	0.2763	2.2318
MO -> IA	0.1046	1.4951
MO * ED -> IA	-0.1653	1.308
SIZE -> IA	0.1536	2.2268

4.18.1 Mediating test

Typically a confidence interval is computed and it is checked to determine if zero is in the interval. If zero is not in the interval, then the researcher can determine p value and be confident that the indirect effect is different from zero. The results of the mediation analysis for Malaysia are represented in table below:

Table 4.61 Mediation Test Results (Malaysia)

Hypothesis	Upper bond	Lower bond	Indirect Beta	Mediation type observed
Malaysia				
MO	0.104	0.997	0.102	No mediation
INO	0.100	0.096	0.098	Partial mediation
EO	0.078	0.075	0.076	Partial mediation

In hierarchical regression researcher has the option of entering predictor variables into the regression analysis one at a time or in steps. This allows the researcher to see the increase in the variance accounted for when the second predictor is added. This called the R-square change, which is just the improvement in R-square when the second predictor is added. To test the whether all the predictors together explain the variance of the Intention to form alliance better than explaining alone we run the hierarchical regression. At the first step the scores of the latent variables imputed from the measurement models and in the second step the hierarchical regression has conducted.

Table 4.62 R-Square Change Test (Malaysia)

Malaysia	First model		Second model		Third model		Fourth model	
	beta	p-value	beta	p-value	beta	p-value	beta	p-value
Size	.507	.000	.315	.000	.282	.000	.138	.014
Age	.142	.119	.108	.097	.126	.038	.034	.471
MO			.543	.000	.388	.000	.171	.004
EO					.255	.000	.259	.000
INO							.410	.000
R ²	.261		.628		.684		.818	
R ² change			.367		.056		.134	

From the results it can be concluded that MO, EO and INO are better predictors of intention to form alliance comparing to considering them as a single predictor.

Table 4.63 Hypothesized Test Results (Malaysia)

Hypothesis	
H'1: Market Orientation is likely to positively influence alliances formation intentions	Supported
H'2: Entrepreneurial Orientation is likely to positively influence alliances formation intentions.	Supported
H'3: Innovation Orientation is likely to positively influence alliances formation intentions.	Supported
H'4: Degree of Internationalization is likely to positively influence alliances formation intentions.	Supported
H'5: Market Orientation is likely to positively influence Degree of Internationalization.	Supported
H'6: Entrepreneurial Orientation is likely to positively influence Degree of Internationalization.	Supported
H'7: Innovation Orientation is likely to positively influence Degree of Internationalization.	Supported

Table 4.64 Hypothesis Mediate Test Result (Malaysia)

Hypothesis	
H8: The degree of internationalization mediates the association between market orientation and intentions to form alliances.	Not- Supported
H9: The degree of internationalization mediates the link between entrepreneurial orientation and intentions to form alliances.	Supported
H10: The degree of Internationalization mediates the correlation between the innovation orientation and intentions to form alliances.	Supported
H11: The higher level of environmental dynamism strengthens the impact of market orientation on influence alliances formation intentions	Not- Supported
H12: The higher level of environmental dynamism strengthens the impact of entrepreneur orientation on influence alliances formation intentions	Not- Supported

H13: The higher level of environmental dynamism strengthens the impact of innovation orientation on influence alliances formation intentions.	Supported
H14: The higher level of environmental dynamism strengthens the impact of degree of internationalization on influence alliances formation	Supported

4.19 Chapter summary

This chapter reported the findings of this study. It presented the preliminary data screening, CFA, the two-stage structural model and hypothesis testing which was used for analytical purposes. The descriptive statistics for the participating companies in Iran showed that a higher number of male (275) respondents than female (9), representing a ratio of 96.83% and 3.17%, respectively.

CFAs were conducted to identify potentially problematic items and to assess the unidimensionality, discriminant and convergent validity. All constructs were tested for validity and were proven to process validity in all tested aspects.

Analysis of the structural model for Iran companies supported nine out of the fourteen hypotheses. Hypotheses 1, 2, 4, 5, 6, 8, 9, 11, and 14 were supported. As for Malaysia companies analysis of the structural model supported eleven out of the fourteen hypotheses. Hypotheses 1, 2, 3, 4, 5, 6, 7, 9, 10, 13, and 14 were supported. The subsequent chapter discusses and analysis the findings of this study.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.0 Introduction to Chapter Five

Reviewing literature as well as analysing the primary data led this study to a good amount of very important findings that will guide not only academicians to obtain much more understanding of this context but additionally assist professionals as well as practitioners to enrich their evaluation and judgment in addition to seize more beneficial steps . As precious time passes and field of business turns into progressively more complex environment firms, shift towards collaboration as well as partnership to generate competitive advantages mutually and then provide a greater number of consumers.

Over last decade, a number of researchers have committed time and energy to discover strategic alliances as one of the extremely important behaviour and strategy of the firms. Strategic alliances have been commonly used in modern business additionally the notion of alliance is referred to as a multidisciplinary issue overlapping numerous dimensions in business as well as management from marketing to supply chain, global business along with strategy and competition.

Strategic alliances is actually a high-risk and also challenging action which requires maximum knowledge about the strategy as well as heavy study of the area from the framework of alliance to selection of partner , method and also management of the alliance and even its very own outcomes and antecedents. As a PhD dissertation, this study addressed this strategic process from firm's orientation and firm's internationalization and then investigates the effects of these variables as antecedents of intention to form strategic

alliances of Malaysian and Iranian SMEs to create better understanding of these phenomena in these contexts. Main building blocks and constructs were extracted from literature review and then accordingly a survey was undertaken by distributing a questionnaire to SME's executives and statistically analysed and interpreted in order to draw clear overview of interaction of these variables in Iranian and Malaysian SMEs.

This chapter thus, reviews the main findings of statistical analysis or quantitative analysis, discusses about this empirical study. Finally, research questions that have been written in chapter one are answered, research objectives are met and eventually, implication of this study for managers and executives are paid attention to. To complete the study limitations of study are presented and some research directions for future study are drawn.

5.1 Summery of thesis and Synopsis of Quantitative Findings

The initial aim for this study was to explain strategic alliances strategies, specifically intention to form alliance and the impact of degree of internationalization on it. Secondly, to link the relationships of strategic orientation dimensions (EO, MO, and IO) with intention to form alliances. Thirdly, the relation between strategic orientation and the degree of internationalization is examined and, finally, the effect of environmental dynamism is measured as the moderator in two last models. In this section findings of this study with respect to each model is presented and based on findings thesis questions and objectives is covered.

5.1.1 Research Question

To perform a quantitative study based on the findings of literature conceptual model and hypothesis developed, suitable measurements introduced and to collect the data survey was

done and in the end to analyse the data SEM technique has used. All this process barfly discussed in previous chapters. In this study 3 different models (one compression model between Iran and Malaysia and 2 separate models to evaluate the effect of moderator on variables relations) are developed. In this thesis all the questions are reflected by thesis hypothesis and aims to cover research objectives. This thesis developed the following research questions and objectives:

1. How do Strategic Orientations influence Degrees of Internationalization?
2. How do the Degrees of Internationalization influence alliance formation intentions?
3. How are the impacts of Degrees of Internationalization on alliance formation intentions influenced by environmental dynamism?
4. How are the impacts of Strategic Orientations on alliance formation intentions influenced by environmental dynamism?
5. What is the relationship between Strategic Orientation and alliance formation intentions?
6. Is there any significant different between the study model in Iran and Malaysia (Does the country moderate the model)?
7. Does the combined effects of orientations make a difference to the explanatory power of the model as opposed to the decomposed model?

5.1.2 Research Objective

1. To understand the relationship between Strategic Orientation and alliance formation intentions.

2. To understand the relationship between Strategic Orientation and Degrees of Internationalization.
3. To understand the relationship between Degrees of Internationalization and alliance formation intentions.
4. To explain the impact of environmental dynamism on the relationship between Degrees of Internationalization and alliance formation intentions.
5. To explain the impact of environmental dynamism on the relationship between Strategic Orientation and alliance formation intentions.
6. To investigate the effect of a country's business culture as a moderator on the model
7. To understand the combination effects of independent variables

5.2. Model 1 (Cross national model between Iran and Malaysia)

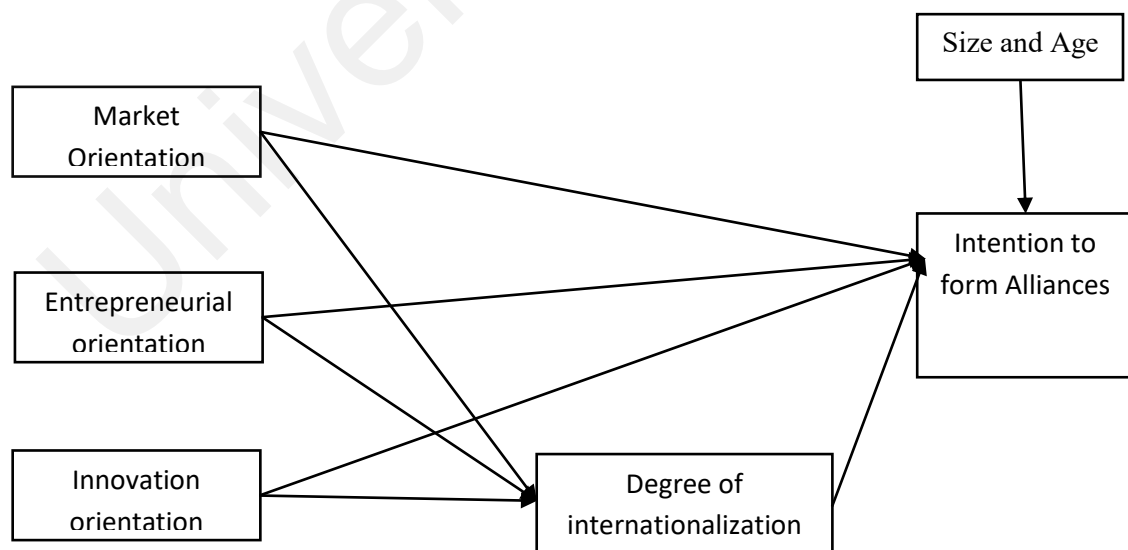


Fig 5.1: Conceptual Model and Hypothesis for Cross National Model

Table 5.1 Model one findings (cross national model, compare Iran and Malaysia)

Hypothesis	Iran	Malaysia	Research Question and Objectives
H1: Market Orientation is likely to positively influence alliances formation intentions	Supported	Supported	Covered Question 5 and Objective 1
H2: Entrepreneurial Orientation is likely to positively influence alliances formation intentions.	Supported	Supported	Covered Question 5 and Objective 1
H3: Innovation Orientation is likely to positively influence alliances formation intentions.	Not-Supported	Supported	Covered Question 5 and Objective 1
H4: Degree of Internationalization is likely to positively influence alliances formation intentions.	Supported	Supported	Covered Question 2 and Objective 3

H5: Market Orientation is likely to positively influence Degree of Internationalization.	Supported	Supported	Covered Question 1 and Objective 2
H6: Entrepreneurial Orientation is likely to positively influence Degree of Internationalization.	Supported	Supported	Covered Question 1 and Objective 2
H7: Innovation Orientation is likely to positively influence Degree of Internationalization.	Not-Supported	Supported	Covered Question 1 and Objective 2
H8: Degree of Internationalization mediates the relationship between market orientation and alliances formation intentions	Supported	Not-Supported	Covered Questions 1 & 2 & 5 and Objectives 1& 2 & 3

H9: Degree of Internationalization mediates the relationship between entrepreneurial orientation and alliances formation intentions.	Supported	Supported	Covered Questions 1 & 2 & 5 and Objectives 1& 2 & 3
H10: Degree of Internationalization mediates the relationship between innovation orientation and alliances formation intentions.	Not-Supported	Supported	Covered Questions 1 & 2 & 5 and Objectives 1 & 2 & 3

5.2.1. Findings of H1, H2, H3 (Direct Relation of Strategic Orientation dimensions with Intention to form alliance)

Once a firm makes a decision to proceed into strategic alliances, the initial step that the firm ought to know is almost always to choose the appropriate partner. The important key for firms to select the right and appropriate partner is to provide valuable information about strategy match, supplementary resources, reputation and geographical area. In addition, as mentioned previously in chapter one and two, strategic alliance contains risk. But managers especially in SMEs context sometimes due to lack of resource, market share and/or access

and more importantly to create competitive advantages or to overcome the market entry barriers need to apply this strategic action as the best possible scenario.

Firms with greater rate of Market orientation are trying to maintain their firms up to date regarding Market, competitor and consumers to satisfy their customers need and sustain their competitive advantages. Moreover, while in today's competitive business environment innovation is highlighted as a crucial source of competitive advantages, companies with higher rates of innovation orientation are more keen to not only appreciate the value of innovation but also search for the new source of innovation even if it contain risk. Strategic alliance can help SMEs to enjoy the innovation from the shared source of partner and also create new innovation by using the synergy effects of shared resources. When it comes to alliance use, studies have proven that SMEs with greater strategic orientations are more inclined to form alliances, in most cases, managers of these companies have a tendency to concentrate much more on alliance advantages instead of risks (Marino et al., 2002; Marino et al., 2008). Quantitative results of this thesis with only exception of H3 in Iran supported. Differences between 2 countries about H3 confirm the global innovation index report (figure 5) which showed the significant distance between Iran and Malaysia ranking in this report.

	Score (0–100) or value (hard data)	Rank
Global Innovation Index 2012 (out of 141).....	45.9	32
Innovation Output Sub-Index	37.6	38
Innovation Input Sub-Index.....	54.2	29
Innovation Efficiency Index	0.7	84
Global Innovation Index 2011 (out of 125)		31
GII 2012 rank among GII 2011 economies (125)		31

	Score (0–100) or value (hard data)	Rank
Global Innovation Index 2012 (out of 141).....	27.3	104
Innovation Output Sub-Index	20.8	117
Innovation Input Sub-Index.....	33.9	97
Innovation Efficiency Index.....	0.6	118
Global Innovation Index 2011 (out of 125)		95
GII 2012 rank among GII 2011 economies (125)		98

Figure 5.2 Global innovation index report for Iran and Malaysia 2012

5.2.2. Findings of H4 (Direct Relation of Degree of Internationalization with Intention to form alliance)

There are several factors that can enhance alliance formation. Most importantly, internationalization is shown to significantly enhance alliance behaviour of firms (Ma, 2012). Internationalized companies have more reasons to participate in strategic alliances (Hiroshi Yasuda, 2005). Amongst one of the key behaviours of firms that can be impacted by strategic alliance is the internationalization of the firm (Jane W. Lu, 2001). Because of this, surprisingly based on previous literature reviews we found that, how the degree of internationalization impacts the alliance formation is a question that needs to be explored more. In addition because we did know Firms with a higher degree of internationalization have greater experience and knowledge about international markets or are likely to have prior alliances (Bandelj, N., & Purg, D., 2006) we conclude, this makes them both appealing for firms seeking alliance and it could enhance their formation of alliance (Moliterno et al., 2011). Despite this rationale, little is known about this causation. As a result, this was the intention of this research to narrow this gap. Towards this end, this study proposed and tested a model in which a firm's degree of internationalization accounts for its intention to form a strategic alliance. This could explain an important yet neglected factor involved in the way

firms vary in their intention to form strategic alliance. Findings of this study supported this logics and this hypothesis supported both in Iran and Malaysia.

5.2.3. Findings of H5, H6, H7 (Direct Relation of Strategic Orientation dimensions with Degree of Internationalization)

There are basically two main perspectives on the steps involved in the internationalization of small and medium-sized enterprises (SMEs). The 1st sees the internationalization of SMEs to be a sequential procedure that leads from a home marketplace to global marketplaces as outlined by a “learning procedure,” where understanding of the new markets is obtained and also resources are more and more devoted to these marketplaces (Johanson and Vahlne 1990; Cavusgil 1980). The 2nd point of view, taken from the international entrepreneurship literature, contends that a company could possibly be “born global” (Andersson and Wictor 2003; McDougall, Oviatt, and Shrader 2003; Madsen and Servais 1997; McDougall and Oviatt 2000; McDougall, Shane, and Oviatt 1994; Armario, J. M., Ruiz, D. M., & Armario, E. M., 2008; Kuemmerle 2002 Knight and Cavusgil 1996). The present state of the study implies that, in mature industrial sectors wherein environmental change is minimized, the sequential view of internationalization is much more suitable, while, in developing industrial sectors, the 2nd point of view offers a much better knowledge of the internationalization phenomenon. This review of the functionality of the 2 views is based on the point of view that, in the earlier phases, the internationalization of SMEs could be impacted by the life-cycle phase of the industry (Andersson, 2004). Studies have additionally found that the possession of particular competencies is able to assist the improvement of a company’s internationalization strategy, notably in the early stages of the process (Li, Li, and Dalgic 2004; Yip, Gómez, and Monti 2000).

In this thesis we added to this distinctive line of study by researching if the strategic orientation (MO, EO, IO), recognized as a particular business competence, and also constitutes an antecedent to internationalization in SMEs. From a behavioral point of view, MO was basically referred to as “the company extensive generation of market intelligence related to present as well as upcoming consumer needs, dissemination of the intelligence across divisions, and also organization-wide responsiveness to it” (Kohli and Jaworski 1990). Therefore, MO may also be comprehended as a firm resource simply because, with regards to the theory of the resource-based view (RBV), MO is an intangible asset of the company that helps it to deal with market information as well as provide value to the consumers (Hunt and Lambe 2000). In this regard, market-oriented actions assist organizational learning and also improve market knowledge (Day 1994). The acquisition of this kind of knowledge in a single, particular context is way less appropriate as the acquisition of the capability to evaluate, recognize, and also react to a variety of contexts. Stated another way, firms should learn to learn. Based on MO definition we can conclude companies with higher rate of MO are more likely to perform better than companies which are less market oriented. With the understanding of the importance of market orientations for firms and their relationship with expansion strategies, such as internationalization, the definition for EO and its significance in a firm’s performance, particularly SMEs performance, is provided. EO is defined in many different dimensions, but the most referred dimensions of EO include: (1) Innovativeness, (2) Proactiveness, and (3) Risk-taking (Lumpkin & Dess, 1996; Shihping Kevin Huang, Yu-Lin Wang b., 2011).

Innovativeness means that a firm is willing to follow new thoughts and ideas in its development process or products. Proactiveness refers to an organization with an avant-garde characteristic and is quick to respond on the external environment and in the particular industry, it involves in. Risk-taking means a firm pursues an entrepreneurial opportunity

without concerning the resources that it may have or may not have. Currently, EO is viewed as a strategic approach in decision-making process as well as means of explaining a firm's performance (Green, Covin, and Slevin, 2008). In addition, regarding internationalization, EO allows a firm to see and exploit opportunities in foreign markets; this increase the chance of the firm to successfully enter the international market (Weerawardena et al., 2007).

For illustration, Nummela, et al., (2004) propose a positive relationship between EO as managerial global attitude and the degree of internationalization. Furthermore, previous studies suggest that entrepreneurial orientation (EO) and market orientation (MO) provide the foundations on which a firm can build its interactions with foreign markets (Knight & Cavusgil, 2004; Luo, Sivakumar, & Liu, 2005). Recently, research in strategy shows that EO and MO are vital for advanced performance by firms from emerging markets (Lau & Busenitz, 2001; Li, Liu et al., 2006; Liu, Luo, & Shi, 2003; Subramanian & Gopalakrishna, 2001), and there is also evidence which shows that EO is especially helpful in achieving success in foreign markets (Luo & Tung, 2007; Yamakawa et al., 2008; Zhou, 2007).

In addition, one of the other dimensions of strategic orientation is innovation, which is less explored, and we have lack of literature as well as empirical findings about this dimension in strategic management. Innovation orientation is the name given to an organization's flexibility to innovative ideas as well as tendency to change as a result of adopting new technology, resources, skills, and even managerial systems (Hurley and Hult, 1998; Zhou, K. Z., Gao, G. Y., Yang, Z., & Zhou, N., 2005). A firm may perhaps experience serious resistance from inside while adopting an innovative new idea. Innovation orientation is the essential driver for coping with hurdles and improving a firm's capability to effectively adopt or even implement new systems, process, and also products (Hurley and Hult, 1998).

Quantitative results of this thesis with only exception of H3 in Iran supported. As discussed earlier this differences can be explained by the significant distance between Iran and Malaysia ranking in global innovation index 2012 report.

In addition, while H8 in Iranian model supported Malaysian model did not support this hypothesis. In addition, Results of this study showed the strong support toward H9 in both countries. And finally, H10 with no surprise rejected in Iran but supported for Malaysia. In fact, this finding is novel in a sense that based on my knowledge it has not been previously tested. This claim I believe is important in terms of its value to the strategic alliance /internationalization literature.

5.3. Model 2 (moderator role of environmental dynamism on Iran and Malaysia model)

To investigate the impact of external environment on our model, Model 2 developed and environmental dynamism as moderator added to model 1.

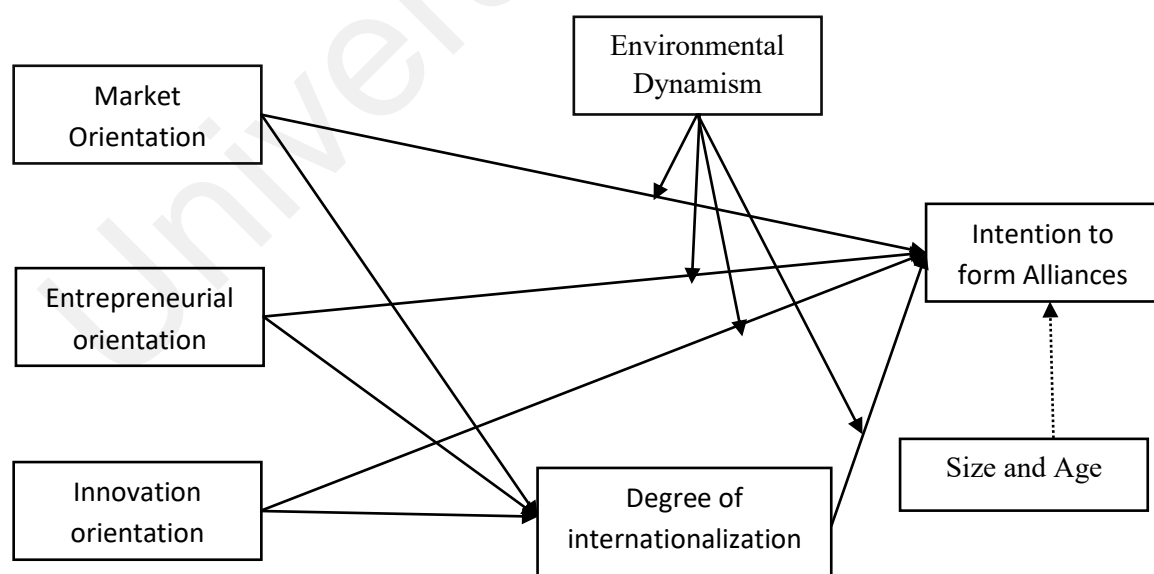


Fig 5.3: conceptual model for moderator role of environmental dynamism for both Iran and Malaysia.

Table 5.2 Model 2 findings (investigate the influence of environmental dynamism as moderator on Iran and Malaysia models separately)

Hypothesis	Iran	Malaysia	Research Question and Objectives
H1: Market Orientation is likely to positively influence alliances formation intentions	Supported	Supported	Covered Question 5 and Objective 1
H2: Entrepreneurial Orientation is likely to positively influence alliances formation intentions.	Supported	Supported	Covered Question 5 and Objective 1
H3: Innovation Orientation is likely to positively influence alliances formation intentions.	Not-Supported	Supported	Covered Question 5 and Objective 1
H4: Degree of Internationalization is likely to positively influence alliances	Supported	Supported	Covered Question 2 and Objective 3

formation intentions.			
H5: Market Orientation is likely to positively influence Degree of Internationalization.	Supported	Supported	Covered Question 1 and Objective 2
H6: Entrepreneurial Orientation is likely to positively influence Degree of Internationalization.	Supported	Supported	Covered Question 1 and Objective 2
H7: Innovation Orientation is likely to positively influence Degree of Internationalization.	Not-Supported	Supported	Covered Question 1 and Objective 2
H8: Degree of Internationalization mediates the relationship between market orientation and alliances formation	Supported	Not-Supported	Covered Questions 1 & 2 & 5 and Objectives 1 & 2 & 3

intentions			
H9: Degree of Internationalization mediates the relationship between entrepreneurial orientation and alliances formation intentions.	Supported	Supported	Covered Questions 1 & 2 & 5 and Objectives 1 & 2 & 3
H10: Degree of Internationalization mediates the relationship between innovation orientation and alliances formation intentions.	Not-Supported	Supported	Covered Questions 1 & 2 & 5 and Objectives 1 & 2 & 3
H11: The higher degree of environmental dynamism strengthens the impact of market orientation on	Supported	Not-Supported	Covered Question 4 and Objective 5

intentions to form alliances.			
H12: The higher degree of environmental dynamism strengthens the impact of entrepreneur orientation on intentions to form alliances.	Not-Supported	Not-Supported	Covered Question 4 and Objective 5
H13: The higher degree of environmental dynamism strengthens the impact of the innovation orientation on intentions to form alliances.	Not-Supported	Supported	Covered Question 4 and Objective 5

H14: The higher degree of environmental dynamism strengthens the impact of the degree of internationalization on intentions to form alliances.	Supported	Supported	Covered Question 3 and Objective 4
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SMEs in emerging and developing markets mostly are vulnerable to rapidly changing environments due to the firms' lack of resources and the frequently underdeveloped institutional "safety nets" to help buffer a shock effect in these economies or their external environment (Sawyer, 1993; Marino, L. D., Lohrke, F. T., Hill, J. S., Weaver, K. M., & Tambunan, T., 2008). Scholars have frequently studied how SME managers, in general, contend with changes in their external environment (Covin & Slevin, 1989), including severe shocks (Meyer, 1982). Several previous research have shown that one strategic response to increasing uncertainty and dynamics of the external environment is to establish strategic alliances (Hitt, Ahlstrom, Dain, Levitas, & Svobodina, 2004; Marino et al., 2008), which can improve long-term survival chances by enhancing an SME's skills, augmenting resources, spreading risk, providing new market access, or enhancing the reputation (Varadarajan & Cunningham, 1995). Previous Research by Hamel 1991 also noted, however, that strategic alliances could create problems for SMEs, including losing a competitive advantage to or creating dependence on an alliance partner. Although always a threat, these issues may be

even more acute in a volatile, emerging market where external environmental changes and severe competition in the market make information verification and contract enforcement more difficult, which, in turn, may encourage a partner's opportunistic behavior (Luo, 2007). Thus, SMEs are only likely to form alliances when managers perceive advantages will outweigh disadvantages (Harrigan & Newman, 1990).

Despite this attention in the literature, with few exceptions (Tan & See, 2004), most studies have examined SME reactions to environmental change in mature economies. In addition, vast differences can exist between environmental and firm characteristics in mature and emerging economies (Hoskisson, Eden, Lau, & Wright, 2000; right, M., Filatotchev, I., Hoskisson, R., & Peng, M., 2005). In addition, both characteristics likely affect how and even whether managers respond to external changes when they are under pressure of severe competition (Chattopadhyay, Glick, & Huber, 2001). Although environmental factors may be expected to significantly influence alliance intentions, extant research indicates that firm-level factors will also affect alliance formation and use (Eisenhardt & Schoonhoven, 1996). These characteristics can influence alliance formation because they affect managers' cognitive biases that influence the amount and type of information employed in making strategic decisions (Daft, R., Sormunen, J., & Parks, D., 1988). Firm's strategic orientation can be influenced by its competitive context and with the intensity of competition in their industry and external environment (Deshpandé, R., Grinstein, A., & Ofek, E., 2012).

This thesis examined the moderating effect of external environmental (environmental dynamism) on the relation of SME strategic orientations and their degree of internationalization with the intention to form alliances for coping with external environmental changes in two developing economies (Iran and Malaysia). The findings of this thesis showed, in model one

5.3.1. Findings of H11 (Market orientation, dynamism and formation of alliances)

Small firms are closer to markets than large firms and more influenced by market volatility than their large competitors due to their smallness, less power and proximity to customers (Lubatkin et al. 2006). Specially in developing economies research shows that institutional voids caused by under-developed market-supporting systems weaken marketing capabilities of small firms (Boso, Story and Cadogan 2013). When managers perceive their task environment as highly dynamic, unstable, and changing, their information processing capabilities decline and diminish their control over resources (Dess and Rasheed 1991). This creates a situation where new resources and an enhanced access to new opportunities are needed to revive the competitiveness of the firm and secure its survival (Marino et al. 2008). Under these circumstances strategic collaborations with other firms in the form of alliance ties, contractual relationships, or equity partnership is a pivotal means to achieve these goals (Boso et al. 2013) by gaining access to new resources, learning new sources of strategic power, finding new opportunities, learning to share and tolerate risks and increasing information processing capacity for a better analysis of transaction costs and an improved strategic choice making competency (Street and Cameron 2007).

Market-driven firms characterized by market-oriented strategies have an important advantage over their less market-oriented counterparts because market orientation as a culture and strategic mindset provides the cultural foundation for learning about customers, competitors, market trends market opportunities (Slater and Narver 1995). This foundation brings about the capacity to develop managerial practices that help the firm learn from partners as a strategic means to reduce complexity associated with dynamism in markets and thrive in dynamic markets through strategic networks (Boso et al. 2013; Shin et al. 2012).

Surprisingly, while the result supported the hypothesis for Iran, Malaysia Model results did not support this hypothesis.

5.3.2. Findings of H 12 (Entrepreneurial orientation, dynamism and formation of international alliances)

Entrepreneurial orientation (EO) exhibits firm-level behaviors that are entrepreneurial in nature (Lumpkin and Dess 1996). The entrepreneurial nature here refers to activities that create new combinations or configurations of resources in a manner that drives exploitation of new opportunities and sources of customer value (Schumpeter 1934). Therefore, entrepreneurial firms (i.e. High in EO), simultaneously manifest aggressive innovations, proactive actions and risk-taking behaviors (Miller 1983).

Even though EO has become a strategic imperative and a pivotal facet of competitiveness (Hakala 2011), however due to its focus on innovative, risky and proactive strategies it is a resource-consuming proclivity (Bradley, Wiklund and Shepherd 2011). To stay competitive, hence, entrepreneurial firms try to form partnerships to enhance access to resources (DOH 2000), and improve their legitimacy (Dakin et al. 2007) in order to sense and seize new opportunities. Consequently, strategic alliances are sought in order to foster entrepreneurial learning that underpin how EO is translated into successful venturing activities (Teng 2007). Strategic alliances offer more opportunities for learning because they bring complementary resources rooted in different cultural settings into the partnership (Nielsen 2003). These strategic complementarities, in turn, stimulate development of deeper and broader combinative capabilities that increase competitiveness of partners (Teng 2007).

Further, a key attribute of small and entrepreneurial firms is that they are more likely to engage in entrepreneurial activities in dynamic environments (Miller 1983). This is because

in dynamic context waves of creative destruction generated by entrepreneurial activities allow the firm to disequilibrate the market in order to create and reap more value than its rivals (Schumpeter 1934). From the results of both countries it was observed that both countries model did not supported this hypothesis.

5.3.3. Findings of H 13 (Innovation orientation, dynamism and formation of strategic alliances)

As noted earlier, innovation orientation is a unique construct on its own reflecting a firm's managers' proclivities towards innovations that enable competitive competencies (Siguaw et al. 2006). Firms that are high in this attribute develop innovation-enhancing functional areas which reflect the philosophy of continuous learning, proactive-ness, resiliency and trans-functional acclimation (Engelen et al. 2013). As a result, innovation-orientation generates a strategic flexibility capability enabling a firm to continuously search for innovative opportunities (Siguaw et al. 2006). Since any new markets offer more innovative opportunities than current markets, it is expected and supported by research that innovatively-oriented firms internationalize more effectively (Ripolles Meliá et al. 2010) and outperform others especially when markets become rapidly changing and dynamic (Simpson et al. 2006). More specifically, research shows that innovation-orientation not only increases the capacity of a firm to successfully engage in co-productive activities (Chen, Tsou and Ching 2011) but is also stimulates knowledge-sharing and enhances flow knowledge among firms from different countries (Simpson et al. 2006).

Given the above, innovation-oriented firms are more prone to partnership than others (Zhou et al. 2005), especially when market dynamism necessitates change and innovative courses of action (Chen et al. 2011). In this context, inclination towards international-networks enhances both technological venturing and marketing competencies of the firm and enables it to reduce

pressure of the competitive forces (Kelley, Peters and O'Connor 2009). Results of Iran model did not support this hypothesis but as we expected Malaysian result significantly support this hypothesis. In addition H 14 supported in both models and Finally, Objective 6 and question 6 is covered by the results of the table 4.35 and 4.36 which showed there is a significant different between the study model in Iran and Malaysia (country moderate the model). And finally, objective 7 and question 7 is supported by the results of table 4.42 in model one and table 4.55 for Iran model and table 4.62 for Malaysia model and we can concluded that MO, EO and INO are better predictors of intention to form alliance comparing to considering them as a single predictor

5.4. Theoretical implications

This research makes advances to the network theory in two ways. First, it introduces three different types of organizational orientation as antecedents of a firm's tendency to form strategic alliance. It is important because research on networks and alliances has not been examined antecedents of firm's tendency to develop networks sufficiently (Moliterno, & Mahony, 2011). Secondly, incorporating the contingency hypothesis within the network theory this research found that the variations in forming alliances among firms are contingent upon the level of perceived dynamism. This is significant in that, prior research has not determined the extent to which dynamism as a macro-environmental factor influences firms' tendency to develop networks of allies.

Formation of strategic alliance lies at the heart of network view of the firm and network theory of competition (Borgatti and Foster 2003; Chen and Chen 2002; Zheng, Li and Wu 2013). In this study we proposed and tested few models using data from Malaysia and Iran manufacturing SMEs suggesting that three distinctive dimensions of strategic orientation of a firm could account for the observed heterogeneity in the formation of strategic alliances

among firms in an industry and will impact on firm's degree of internationalization. In general, our findings enrich the ongoing debate on the factors that drive formation of strategic alliances (Glaister and Buckley 1996; Lee and Park 2008; Osborn et al. 1998; Styles and Hersch 2005; Tallman and Shenkar 1994; Yeniyurt et al. 2009) in two ways. First, findings of this study suggest that market, entrepreneurial and innovation orientation contribute differently to the tendency of a small firm towards strategic alliances. This finding is unique in that, prior studies have overlooked the fact that any given firm at any given point is able to simultaneously pursue market-oriented, entrepreneurial and innovative objectives which separately and jointly drive its tendency to engage in strategic networks. Therefore, relying only on one orientation prevents us from understanding the potential impact of other orientation of such an important strategy. This contributes to the network theory by showing that foundations of networks can be studied from at least three perspectives: quest for innovativeness, quest for marketing capabilities and quest for establishing entrepreneurial advantages.

Secondly, consistent with the contingency hypothesis in the strategy literature (Boyd et al. 2011), our empirical results suggest that the association between strategic orientation and formation of strategic alliances by small firms is contingent upon environmental dynamism. This results echoes the findings of previous studies (Dickson, Weaver and Hoy 2006; Fink and Harms 2012; Gaur et al. 2011; George and Farris 1999; Koka, Madhavan and Prescott 2006; Luo 2007; Terjesen, Patel and Covin 2011; Zahra and Garvis 2000) from a new context (Malaysian and Iranian manufacturing SMEs) and further reinforce the notion that environmental contingencies pose important influence on dynamism of networks and formation of asymmetric alliances among firms.

More specifically, we found that small firms that exhibit market, entrepreneurial and innovative orientations tend to increase their tendency to engage in strategic alliances when

environment is more dynamic and volatile. Thus, perhaps inclusion of objective rather subjective measures of dynamism could cast new light on this finding.

Another explanation could be related to our small sample size. Even though we examined the predictive power of our model but significance of interaction effects is sensitive to the sample size (Chin, Marcolin and Newsted 1996). Therefore it is possible to observe different interactions in studies with larger samples. These two issues highlight the importance of replicating studies in this context and give more credence to the importance of replication in management research (Tsang and Kwan 1999).

Finally, formation of strategic alliances is a dynamic capability (Anand, Oriani and Vassolo 2010; Singh, Oberoi and Ahuja 2013). By examining the role of various strategic orientation in this capability this study advances the current debate on the foundation and drivers of dynamic capabilities (Barney, Ketchen and Wright 2011; Eisenhardt, Furr and Bingham 2010; Lewin, Massini and Peeters 2011) and provide new evidence in favour of the notion that dynamic capabilities originate from the strategic proclivities of the firm and environmental dynamism regimes influence the extent to which these proclivities yield specific dynamic capabilities such as strategic alliances.

5.5. Managerial implications

A better understanding of the factors fostering firms to develop competitive performance through collaboration strategies is a central issue for executives. In particular, it is evident that the allure of choosing an appropriate firm level strategy appears to lead to something of a paradox for executives. On the one hand, they see their firms as a resource-deprived entity that is unable to invest in resource-driven expensive market-expanding strategies, and on the

other hand they see their firms as a flexible entity able to respond quickly to innovative strategies.

As the extant managerial literature points out, especially in the small business context, firm orientation is fully depend to characteristics of executives which cannot be dissociated from the behaviour and orientation of their firms. Characteristics, however, only lead to results if actions are taken. In particular, in SMEs a single executive, who is most likely the owner, managing director, or main shareholder of the firm, makes the key choices. These executives, known as “strategic leaders,” continuously strive to phase in their personal characteristics with those of their firms. This mechanism causes them to act based on their characteristics which will form their firms orientation.

This study points to several implications based on this logic for executives of small firms and aims to assist them in making choices that enable them to navigate their performance in a better direction given their resource liabilities. These implications spring from firm orientation known as “strategic orientation” that is relatively influence all other strategic choices and develop firm strategic approaches toward market, competitor and consumers. It can therefore lead to different identifiable behaviours and posture in firms that occur over time in different contexts. Hence, this study was able to offer a set of general insights into the managerial behaviours and decision-making of executives which could be useful for leading the performance of their firm.

First of all, the role of firm strategic orientation of the firms is critical for explaining organizational behaviours. Particularly in small businesses, firm-level outcomes such as superior performance can be seen because of the enactment of the executives’ behaviours and their strategic actions— actions related to firms’ strategies—such as the acquisition of assets and choices of business model for their firm. In light of this notion, a number of managerial

implications stem from this research. They will be presented in this section in the hope that executives will find them useful inputs in their decision-making and performance-driving behaviour.

In addition, a better understanding of the factors fostering small firms to develop international presence and secure a competitive position in today's globalized markets is a central issue for managers of SMEs. Allure of strategic alliances poses a paradox for managers of SMEs face. On the one hand, they see their firms as a resource-deprived entity that is vulnerable to risks and uncertainties associated with internationalization and on the other hand they see their firms as a flexible entity able to adjust to new markets conditions and exploit opportunities orientating from international presence. In this thesis we argued that managers can deal with this perplexity through developing strategic orientation conducive to strategic alliances and also showed the roles of strategic orientation on internationalization of SMEs. This study points to several implications based on this logic for managers of small manufacturing firms:

First of all, we found evidence suggesting that strategic orientation of the firm explains its tendency to form strategic alliances. Strategic orientation is, however, multi-dimensional and is reflected in a firm's marketing, entrepreneurial and innovative orientations. This study is one of the fewest researches in this field distinguishing direct and contingent significance of these three in the hope that executives will recognize respective importance of these dimensions and incorporate them in their decision-making.

From the finding that variations in firms' marketing, entrepreneurial and innovative orientations explain why firms vary in formation of strategic alliances, two issues relevant for executives' practice can be highlighted. First of all, it was empirically supported that each one of these orientations contributes differently to a firm intention to form alliance. Therefore, managers of small firms are advised to recognize similarities, commonalities and

differences between these three and allocate resources to them accordingly. This study suggests that, this recognition brings about a superior strategic capacity to take advantages of international strategic alliance.

From a similar standpoint and given the role of environmental dynamism it can be argued that in dynamic landscape where markets collapse, collide and new markets form, firm which develop favourable strategic asymmetries over their counterparts by effectively focusing on two or three dimensions of strategic orientations would concurrently gain a capacity to assess the strategic risks and opportunities associated with the other orientation and hence become more strategically resilient.

From these findings it can be inferred that executives who assume that relying solely on marketing, innovation or entrepreneurial orientations is insufficient for forming strategic alliance. Hence those managers who adjust their mindset to continuously and simultaneously take market-oriented innovative actions and proactive entrepreneurial behaviour are better positioned to develop and form strategic ties and collaborative initiatives.

Another important takeaway for executives is that as the findings of this research indicate, perception of dynamism does not equally influence managers' tendency towards translating various dimensions of strategic orientation into cooperation and collaboration. Therefore, it seems reasonable to suggest that for managers in charge of forming strategic alliances, perception of dynamism is more important than the actual dynamism. This suggests that managers who invest more in the acquisition of knowledge about their environment may develop more accurate perception of how different orientations can lead to alliances. Hence myopic or inaccurate perception of dynamism may not be conducive to effectively orientate the firm towards partners.

Moreover, as far as the firm size and age are concerned, some general implications can be made as research has revealed, size and age of the firm do not impose any impact upon our conclusions. Therefore the above implications are applicable to managers of SMEs form small to medium and form young ventures to established SMEs.

5.6. Limitations and directions for future research

We believe that the findings of this article are robust because several steps were undertaken to mitigate concerns about informant bias, non-response bias, common-method variance, and measurement error. However, we acknowledge limitations associated with the design and conduct of the study which prevent us from placing full confidence on the results. First, although the concept of dynamism was incorporated into the model as a contingency variable, our subjective measure of dynamism is criticized for being biased by managers' perception. Thus, future studies could advance this model by using objective measures of dynamism as discussed in previous studied such as Dess and Rasheed (1991) and McArthur and Nystrom (1991). Secondly, strategic alliance is a complex adaptive strategy sensitive to cultural and institutional forces of the markets. As a result, further investigations could take into account these aspects and expand our model to provide richer explanations for the role played by the strategic orientation of the firm in formation of various strategic alliances. In a similar vein, in this study we did not distinguish between various forms of strategic alliance such as equity and non-equity marketing or technological collaborations and joint ventures. Hence future studies can address this issue by replacing our model using types of strategic alliance. The exclusive focus on the Iranian and Malaysian manufacturing SMEs is a limitation which reduces the generalizability of our findings. Future studies may extend this study by collecting data from SMEs in other sectors such as retail and service and from other regional countries such as Thailand, India, Singapore and Indonesia for Malaysia and Middle East

countries for Iran. Thirdly, sample size has been a challenge for this study limiting the explanatory power of our model. Therefore, replications based on larger samples appear to be more promising. Finally, since this study does not involve the manipulation of variables, but rather incorporates contemporaneous effects of salient attributes, it cannot truly account for cause-effect relationships. Therefore, future studies can develop more detailed longitudinal models and experiments to establish cause-effect relationships proposed in this study.

Finally, future research could also examine whether firms form other external links beyond the strategic alliances investigated in the present study. Li (2005), for example, noted that firm alliances with other firms and links to local government officials represent distinct constructs, and both may be critical for competing in emerging economies. Thus, additional investigation into the value of political links for firms in crisis situations is warranted.

5.7. Conclusion

This chapter revisited this study from the beginning to the end in order to conclude all findings in a systematic way and offer some analytical points. To do so, first and foremost main findings recalled, thesis objectives and questions covered, theoretical and managerial implication illustrated, some future directions proposed and limitations of study discussed. In this thesis a new theoretical model for drivers of strategic alliance formation was proposed and tested using SEM method based on the data collected from Malaysian and Iranian manufacturing SMEs. It was shown that three inter-connected but separate aspects of firms' strategic orientation namely its entrepreneurial orientation, marketing orientation and innovation orientation separately and jointly explain why some firms are more inclined towards strategic alliance than others. Findings of this study point to a new understanding of the contingencies involved in the foundation of strategic networks by illustrating that environmental dynamism influences the magnitude of these associations. Theoretical and

managerial implications of these findings were discussed and directions for future research were presented.

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