

**THE INFLUENCE OF ENTREPRENEURIAL VALUES ON  
EXPORT INTENTION OF SMALL MEDIUM ENTERPRISES  
IN MALAYSIA**

**LOOI KIM HOE**

**FACULTY OF BUSINESS AND ACCOUNTANCY  
UNIVERSITY OF MALAYA  
KUALA LUMPUR**

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LOOI KIM HOE

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## **ABSTRACT**

A good understanding of small and medium-sized entrepreneurs' motivations for export becomes imperative for the achievement of High Impact Programme - Going Export under the Malaysian Small and Medium-sized Enterprises Masterplan (2012 – 2020). Research has demonstrated that systematic study of values can generate insights about entrepreneurial behaviour. Values are often linked to entrepreneurial intention but to date, a detailed, well-developed and empirically tested model from values to entrepreneurial intention is missing. Extant literature also suggests that it is critical for future research to account for the context within which international entrepreneurship occurs. There are several objectives for this study. The first objective is to propose and empirically test a theory-driven research framework that coherently integrates entrepreneurial values and the Theory of Planned Behaviour in the context of small and medium-sized international entrepreneurship. The second objective is to identify entrepreneurial values that significantly influence the three determinants of export intention, i.e. Behavioural Beliefs, Normative Beliefs and Control Beliefs. The third objective is to investigate the significance of the three antecedents of intention in predicting export intention in a collectivist country. The fourth objective is to determine the relative weightage of the three antecedents of intention in predicting Export Intention in a collectivist country. The fifth objective is to test the moderation effect of observed heterogeneity (i.e. gender, ethnicity, current exporting status of entrepreneurs) as well as unobserved heterogeneity on the integrative framework. The final objective is to provide insights to fine tune public policies that aim to facilitate a greater level of exporting by SME entrepreneurs and further the economic progress of Malaysia. This is a post-positivist and cross-sectional study conducted via survey questionnaire on 243 small and medium-sized entrepreneurs in Malaysia. Data were analysed using Structural Equation Modelling techniques (AMOS and Partial Least Squares). The results revealed that this integration is supported by data

and therefore, extended the theory of entrepreneurship about the impact of entrepreneurial values on entrepreneurial intention. Self-direction and Stimulation values significantly influence the antecedents of Export Intention. Besides this, Behavioural Belief Strength is a stronger predictor of export intention than Control Belief Strength. The group-specific Partial Least Squares results enhanced the overall explanatory power of the integrated model. In other words, the motivations from entrepreneurial values to export intention are moderated by observed heterogeneity and unobserved heterogeneity. Some structural paths are not generalizable across observed heterogeneity, which mean that there are some differences between the two groups. Overall, this integration of entrepreneurial values and the Theory of Planned Behaviour significantly enhances the understanding of the causal relationship between small and medium-sized entrepreneurs' values and export intention. Moreover, the results demonstrate that an aggregate-level of analysis can be misleading. From analysis by observed and unobserved heterogeneity, this study adds to the body of knowledge about human variations in behaviour and the associated reasons; hence, the academic community becomes more enlightened and 'worldly'. The significant theoretical contributions to the international entrepreneurship literature from this study are in international entrepreneurship theory, multi-disciplinary integration and intra-national diversity. This study is evaluated against two influential articles in terms of Theoretical Contributions and Contextualizing Theory Building in Entrepreneurship Research. The results from both evaluations are satisfactory.

## ABSTRAK

Pemahaman yang baik terhadap motivasi usahawan kecil dan sederhana untuk mengeksplot merupakan suatu perkara yang amat penting bagi pencapaian Program Berimpak Tinggi – *Going Export* di bawah Pelan Induk Perusahawanan Kecil dan Sederhana Malaysia (2012-2020). Penyelidikan telah menunjukkan bahawa kajian yang sistematik keatas nilai-nilai boleh menjana pencerahan minda tentang tingkahlaku keusahawanan. Nilai-nilai sering dikaitkan dengan niat keusahawanan, walaubagaimana pun sehingga kini belum terdapat model terperinci, jitu dan yang telah diuji secara empirikal bagi menunjukkan kaitan diantara nilai-nilai dan niat keusahawanan. Kesusasteraan yang sedia ada juga menunjukkan bahawa adalah penting bagi penyelidikan yang seterusnya untuk mengambil kira konteks dalam mana wujudnya keusahawanan antarabangsa. Kajian ini mempunyai beberapa objektif. Objektif pertama ialah untuk membangunkan dan menguji secara empirikal satu rangkakerja penyelidikan berpacuan teori yang mampu mengintegrasikan secara koheren nilai-nilai keusahawanan dengan Teori Perilaku Terancang didalam konteks keusahawanan antarabangsa bersaiz kecil dan sederhana. Objektif kedua ialah untuk mengenalpasti nilai-nilai keusahawanan yang mempengaruhi dengan ketara ketiga-tiga penentu niat untuk mengeksplot, iaitu Kepercayaan Perilaku, Kepercayaan Normatif dan Kepercayaan Kawalan. Objektif ketiga ialah untuk mengkaji kepentingan ketiga-tiga penentu niat dalam meramalkan niat mengeksplot dalam sebuah negara kolektivis. Objektif keempat ialah untuk menentukan bandingan pemberatan ketiga-tiga penentu niat dalam meramalkan niat mengeksplot dalam sebuah negara kolektivis. Objektif kelima ialah untuk mengkaji kesan moderasi faktor kepelbagaian yang boleh diperhatikan (iaitu jantina, kumpulan etnik, dan status terkini pengeksplotan usahawan) serta kepelbagaian yang tidak boleh diperhatikan keatas rangkakerja bersepadu tersebut. Objektif keenam ialah untuk menambahbaikkan dasar-dasar kerajaan dalam meningkatkan tahap eksport oleh usahawan-usahawan IKS. Kajian ini menggunakan falsafah pasca-positivis dan keratan rentas yang dijalankan melalui soal

selidik keatas 243 usahawan kecil dan sederhana di Malaysia. Data telah dianalisis dengan menggunakan teknik *Structural Equation Modelling* (AMOS dan *Partial Least Squares*). Hasil dari analisis menunjukkan bahawa data yang diperolehi menyokong integrasi ini dan dengan itu, mengukuhkan lagi teori keusahawanan berkaitan kesan nilai-nilai keusahawanan keatas niat keusahawanan. Nilai Arah-Sendiri dan Stimulasi didapati mempunyai pengaruh ketara keatas penentu niat mengeksplot. Di samping itu, Kekuatan Kepercayaan Perilaku merupakan peramal niat mengeksplot yang lebih kukuh berbanding dengan Kekuatan Kepercayaan Kawalan. Hasil dari kaedah *Partial Least Squares* berdasarkan kumpulan tertentu memperkuat lagi kuasa penjelasan keseluruhan model bersepadu ini. Dalam erti kata lain, motivasi dari nilai-nilai keusahawanan ke niat mengeksplot diperkuatkan oleh faktor kepelbagaian yang dapat dan tidak dapat diperhatikan. Beberapa laluan struktur tidak boleh dirumus secara umum untuk faktor kepelbagaian yang boleh diperhatikan, ini bermakna bahawa terdapat perbezaan diantara kedua-dua kumpulan. Secara keseluruhan, integrasi nilai-nilai keusahawanan dan Teori Tingkahlaku Terancang memperkukuhkan lagi pemahaman tentang hubungan penyebab antara nilai-nilai dan niat mengeksplot usahawan kecil dan sederhana. Tambahan dari itu, hasil kajian menunjukkan bahawa analisis diperingkat agregat boleh mengelirukan. Melalui analisis faktor kepelbagaian yang boleh dan tidak boleh diperhatikan, kajian ini telah mempertingkatkan pengetahuan tentang variasi tingkah laku manusia dan sebab-sebab yang berkaitan; oleh itu, para akademik menjadi lebih berpengetahuan dan berpandangan lebih luas. Sumbangan penting kajian ini kepada kesusasteraan keusahawanan antarabangsa adalah dalam aspek teori keusahawanan antarabangsa, integrasi pelbagai disiplin dan kepelbagaian intra-nasional. Kajian ini telah dinilai berdasarkan dua buah artikel yang berpengaruh dari segi Sumbangan Teori dan Pembangunan Teori dari aspek Konteks dalam Penyelidikan Keusahawanan. Hasil daripada kedua-dua penilaian ini adalah memuaskan.

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### LIST OF ABBREVIATIONS

AVE	Average variance extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative fit index
EFA	Exploratory factor analysis
$f^2$	Effect size
FIMIX-PLS	Finite mixture PLS
GoF	Goodness-of-fit
IE	International entrepreneurship
ME/I	Measurement invariance / measurement equivalence
MGA	Multi-group analysis
MG-CFA	Multi-group confirmatory factor analysis
PLS	Partial Least Squares
PVQ	Portrait Values Questionnaire
$Q^2$ and $q^2$	Predictive relevance
$R^2$	Coefficient of determination
RMSEA	Root mean square of approximation
SEM	Structural Equation Modeling
SMEs	Small and medium-sized enterprises
TPB	Theory of Planned Behaviour

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University of Malaya

## **CHAPTER 1**

### **INTRODUCTION**

Entrepreneurs are valuable assets of a nation. Many researchers recognized the importance of entrepreneurship in the economic development and vitality of a country (for example, Busenitz, Gomez, & Spencer, 2000; Coviello & Munro, 1995; Hisrich, Honig-Haftel, McDougall, & Oviatt, 1996; Knight & Cavusgil, 1996; Schumpeter, 1959; Thomas & Mueller, 2000; Xavier, Kelley, Kew, Herrington, & Vorderwulbecke, 2013). The economic contributions of entrepreneurship include innovation, diversity, greater competitiveness, generating new ideas and employment opportunities. Entrepreneurship will be a key driver for Malaysia to become a high income economy (SME\_Corporation\_Malaysia, 2014b). As such, governments in many countries have been investing to create entrepreneurs (Dana, 2001). Recently, President of United States praised the vibrant entrepreneurship that has propelled Malaysia to the status of an advanced economy (The\_Star, 29th September 2014).

In Malaysia, a small and medium sized enterprise (SME) in the manufacturing sector is defined as enterprise with annual sales not exceeding RM50 million or full-time employees not exceeding 200 workers (SME\_Corporation\_Malaysia, n.d.). Small and medium-sized enterprises (SMEs) make up approximately 99.2% of total business establishments in Malaysia (SME\_Corporation\_Malaysia, 2014b). SMEs have continued to grow since 2004, contributed 33.1% to GDP, 19% of exports and employed 57.5% of workforce in 2013 (SME\_Corporation\_Malaysia, 2014a). In recognition of the potential role played by SMEs in promoting endogenous sources of growth, the government of Malaysia set up the National SME Development Council chaired by the Prime Minister.

Furthermore, the SME Masterplan (2012 – 2020) has been put in place to align the development of SMEs to the broader national aspirations of achieving a high income economy by 2020 (SME\_Corporation\_Malaysia, 2014b). By 2020, the government aims to increase the contributions of SMEs to 41% of GDP, 62% of employment and 25% of exports (SME\_Corporation\_Malaysia, 2014b). Entrepreneurship received increasing attention from the Malaysian government as reflected in budget 2015 where almost one billion Ringgit is allocated to promote entrepreneurship among various groups.

Trade boosts economic growth, national income and prosperity (World\_Trade\_Organization, n.d.). In this era of globalization, the ability to be competitive internationally is paramount for the future of a nation. Moreover, the more the world economy becomes global, the pressures on firms to internationalize will be greater (Bonaglia, Goldstein, & Mathews, 2007) and the best defense against globalization is to thrive in global economy.

In a small country with limited domestic market, it is difficult for firms to achieve economies-of-scale, to grow large or even to defend home tuff. For firms from small countries, one strategy to grow large is to internationalize (Bonaglia et al., 2007). Global Entrepreneurship Monitor (Bosma & Levie, 2010) report that in each phase of economic development, firms in countries with smaller land area tend to have higher international orientation. Although Malaysia is a small country but it is a major trading nation in the world. In 2012, Malaysia is ranked 24<sup>th</sup> and 25<sup>th</sup> in terms of export and import of merchandise trade respectively (World\_Trade\_Organization, n.d.). For the first eight months of 2014, the average monthly export and import value of Malaysia is RM120 billion, which means a yearly trade value of about RM1.4 trillion (MITI\_Malaysia, n.d.).

The increasing interest in world trade has heightened the need for more international entrepreneurship. International Entrepreneurship (IE) contributes to a nation's economy as well as increase its competitiveness (Kelley, Bosma, & Amoros, 2011). International entrepreneurship can become another source of economic growth for Malaysia to reduce its dependence on commodities, natural resources and foreign direct investments. For these reasons, international organizations and national governments have recognized the importance of promoting international entrepreneurship, not only among large firms, but also in small and medium-sized enterprises. Presently, SMEs in Malaysia play only a small role with respect to international trade, accounting for about 20% of total export. Going Export Programme is an initiative under the SME masterplan to expedite internationalization of Malaysian SMEs by targeting new exporters and new markets (SME\_Corporation\_Malaysia, 2014b).

Enabling forces such as communications technology, transportation, standardization and reduction in trade barriers (Acs, Dana, & Jones, 2003; Andersson & Wictor, 2003; Fallis, 2001; McDougall & Oviatt, 2000) have made it possible for many Malaysian entrepreneurial firms to operate internationally. Still, international markets will be a major challenge for Malaysian entrepreneurs who are used to enjoying high protection and subsidization by the government. Liability of foreignness describes companies that are handicapped when going international in the absence of home government and social support (Child & Rodrigues, 2005). Besides, in going international, firms must overcome dual challenge of rigidities and learning novel knowledge (Autio, Sapienza, & Almeida, 2000) in addition to other problems like cross-cultural complexity (Acs et al., 2003; Muzychenko, 2008).

With the many interesting and exciting international business opportunities, internationalization issues will become more and more important. International entrepreneurship is an emergent field of academic research (Acs et al., 2003; Dana & Wright, 2009; Dimitratos & Jones, 2005; Jones & Coviello, 2005; McDougall & Oviatt, 2000; Thomas & Mueller, 2000; Zahra & George, 2002). The literature suggests that international entrepreneurship is rich in research possibility and opportunity (Acs et al., 2003; Dimitratos & Jones, 2005; Jones, Coviello, & Tang, 2011; Oviatt & McDougall, 2005a; Zahra & George, 2002) as the field is wide with many interesting questions to be explored and many existing theories can be employed (Oviatt & McDougall, 2005a). As such, international entrepreneurship research is attracting strong academic interest worldwide (McDougall & Oviatt, 2000; Oviatt & McDougall, 2005a). At the same time, international entrepreneurship is exciting with many opportunities to integrate theories from multiple disciplines (Etemad, 2004b; Hisrich, Langan-Fox, & Grant, 2007; Zahra & George, 2002).

### **1.1 Background of study**

One of the goals of New Economic Policy is to nurture the entrepreneurial capacity of Malaysian firms, including SMEs (Gomez, 2013; Gomez, Saravanamuttu, & Mohamad, 2013). In view of SMEs' current contributions and future growth potential, the SME Masterplan (2012 – 2020) was formulated to cultivate internationally competitive SMEs, with SME Corporation Malaysia acting as a one stop agency for SMEs (Gomez, 2013).

In an era of economic globalisation, a critical new challenge for entrepreneurs is the ability to work on an international scale. International entrepreneurship (IE) contributes to a nation's economy and increases its competitiveness (Kelley et al., 2011). It has been

observed that many SMEs produce highly competitive products but do not export. Therefore, insights about the export motivations of SMEs would be critical to create successful entrepreneurship development and export stimulation programmes.

Decision-makers' strategic choices are reflections of their values, cognitions and perceptions (Hambrick, 2007; Hambrick & Mason, 1984; Hastie, 2001). International entrepreneurship can also be framed as a cognitive and behavioral process (Dimitratos & Jones, 2005) because exporting is motivated by the decision-maker's attitudes (Reid, 1981). Research suggests that important phenomena in international entrepreneurship can be explained by entrepreneurial cognition (Mitchell et al., 2002) and a number of studies in international entrepreneurship have examined the effect of socio-cognitive factors at individual level and their consequences (Keupp & Gassmann, 2009).

Generally, intention is an indication of a person's readiness to perform a given behaviour (Ajzen, 2006). In the context of entrepreneurship, "intentionality is a state of mind directing a person's attention (and therefore experience and action) toward a specific object (goal)" (Bird, 1988, p. 442). The formation of entrepreneurial intention is one of the main areas of interest in the field of entrepreneurship (Kautonen, van Gelderen, & Tornikoski, 2013). Intention models have also been recently applied to international entrepreneurship (Acedo & Galan, 2011; Looi, 2013).

Values have been repeatedly associated with entrepreneurial intention and behaviors (Hayton, George, & Zahra, 2002; M. Morris & Schindehutte, 2005). Integrating values with entrepreneurial intention model is a promising entrepreneurial process research (Fayolle, Liñán, & Moriano, 2014).

For entrepreneurship to advance as a scholarly field, theory development and testing are needed, such as integrating existing theoretical frameworks (Zahra, 2007). The main purpose of this study is to rigorously develop and empirically test a multi-disciplinary integrative model for a better understanding of SME entrepreneurs' motivations to export to new markets. The proposed integrative model is a step forward in a more systematic and theory-guided research linking entrepreneurial values to export intention.

## **1.2 Problem statement**

With the aim to create a new breed of Malaysian SMEs that are internationally competitive under the SME Masterplan (2012 – 2020), it will require a shift in the mindset of SMEs. Therefore, a good understanding of SMEs' motivations for export becomes imperative for the achievement of High Impact Programme Going Export under the SME Masterplan (2012 – 2020).

The multi-faceted nature of entrepreneurship demands a multi-disciplinary approach to investigate entrepreneurs' motivations. At the same time, more research are needed in more (especially developing) countries and to take cognizant of country-specific factors like culture settings in adapting models and concepts developed in the West (Andersson, Eriksson, & Lundmark, 2006; Knight & Cavusgil, 1996). Extant literature also suggests that it is critical for future research to account for the context within which international entrepreneurship occurs (Zahra & George, 2002).

Ethnic entrepreneurship has become a popular concept in a modern multi-cultural society. There are cultural variations in terms of attitudes, beliefs, expectations and values which allow for comparing and contrasting similarities and differences in individuals'



behaviour from different ethnic groups. It is essential to understand the motivations of different ethnic groups in Malaysia as the causes of entrepreneurial activity across cultures may differ. By researching ethnic differences within a country (Kanter & Corn, 1994), researchers can investigate how cultural context impacts entrepreneurial motivation (Carsrud & Brännback, 2011) because research findings in one culture may not be generalizable to other cultures (Baron & Bryne, 2003). A productive direction for future research is to use a common conceptual framework to identify both the similarities and differences among entrepreneurs from different cultures (Hayton et al., 2002).

The participation of women in entrepreneurial activities is on the rise, in traditionally female dominated fields as well as in non-traditional fields. It is important to understand the similarities and differences in motivations between female and male entrepreneurs as there are differences in entrepreneurial intentions between the two sexes.

Research has demonstrated that systematic study of values can generate insights about entrepreneurial behavior (Holland & Shepherd, 2013). To date, no research has empirically integrated the Values Theory and the Theory of Planned Behaviour (i.e. a multi-disciplinary approach) into a single, coherent, parsimonious model with strong theoretical underpinnings implicitly and/or explicitly suggested in the literature. Thus, the link between a detailed, well-developed and empirically tested model from values to entrepreneurs' intention represents a research gap to be filled (Schlaegel & Koenig, 2014).

In terms of international entrepreneurship research, Malaysia is a less-studied country (see Peiris, Akoorie, & Sinha, 2012). Therefore, not much is known about the motivations of Malaysian entrepreneurs to internationalise.

Presently, the SME Masterplan (2012 – 2020) explicitly ignores differences in ethnicity and gender, which raises doubts whether it can effectively meet the specific needs of SME entrepreneurs of different gender, ethnicity and current exporting status.

This study provides empirical evidence to support the various conceptual propositions of the influence of values on intention, thus move our knowledge about the causal relationship between entrepreneurial values and entrepreneurial intention yet another step ahead.

The SME Masterplan (2012 – 2020) High Impact Programme Going Export may not achieved its stated targets due to lack of insights generated from scientific research. Furthermore, for greater efficiency and effectiveness, public policy should be tailored to SME entrepreneurs' specific needs rather than a one-size-fits-all solution.

The results from this study provide feedbacks to both theories about their applicability in the context of international entrepreneurship in Malaysia. As such, future research conducted in Malaysia should apply these two theories more confidently, including investigation into other entrepreneurial phenomena.

### **1.3 The concept and definitions of entrepreneurship**

Entrepreneurship means different things to different people (Sexton, 1982) and there are many different meanings for entrepreneurship, therefore, the onus is on researchers to state clearly the meaning of entrepreneur or entrepreneurship (Bygrave & Hofer, 1991; Gartner, 1990) as operational definitions will enable researchers to match constructs to specific empirical data and at the same time avoid any surplus meaning (Carsrud, Olm, & Eddy, 1986). The purposes of definitions of key terms used in this study are to provide

a clear picture of the research focus (Gartner, 1989). In the absence of a working definition of entrepreneur, researcher will be unable to identify who will be the respondents (Gartner, 1989). Even though every researcher ought to establish his or her definitions in order to legitimize research findings (Carland, Hoy, & Carland, 1988), this study opts to consult prior scholarly works for guidance on the most suitable definitions.

The literature reveals intellectual disagreement on whether entrepreneur can be defined. On the one hand, some scholars agreed that there is no universally-accepted definition of an entrepreneur or entrepreneurship (Brockhaus & Horwitz, 1986; Carsrud et al., 1986; Dana, 2001; Gartner, 1990; Hechavarria & Reynolds, 2009; Wortman, 1987). On the other hand, many other scholars attempt to define entrepreneur, for instance, Schumpeter (1959) defines entrepreneurs in terms of innovation, that is, the entrepreneur's function is to carry out new combinations. This definition is broad as it covers many kinds of innovation, such as product, process, market, organization of firm and the entire industry (Vesper, 1982), at the same time it is restricted to innovation (Harwood, 1982). Therefore, every new international market entered is an adoption of innovation (Reid, 1981).

Other scholars define entrepreneurs in terms of what they do. For example, initiative-taking, forming or restructuring and management of the organization, allocation of resources and risk-taking (Shapero & Sokol, 1982), the ability to perceive new combinations, willingness to act and develop these new combinations (Note: all these earlier definitions of entrepreneurs of innovativeness, pro-activeness and risk-taking coalesce into a newer notion of entrepreneurial orientation. See Chapter Three Section 3.4.3.3), acting in accordance with one's own vision and ability to convince investors,

doing things at the proper timing (Andersson, 2000). A more popular approach in the literature defines entrepreneurs specifically pertaining to founding, owning and managing companies (Aldrich & Waldinger, 1990; Bird, 1992; Brockhaus, 1982; Davidsson, 1991; Gasse, 1982; Johnson, 1990; Peterson & Horvath, 1982; Tan, 2002; Vesper, 1982). Please see Table 1.1 for the summary of definitions.

Table 1.1 Summary of definitions of entrepreneur

Author(s)	Founder	Owner	Manager
Brockhaus (1982)		√	√
Gasse (1982)		√	
Peterson and Horvath (1982)		√	√
Vesper (1982)		√	
Johnson (1990)	√		√
Aldrich and Waldinger (1990)		√	√
Davidsson (1991)	√	√	√
Bird (1992)	√		√
Tan (2002)	√	√	√

More recent definition of entrepreneurship focus on identifying and exploiting opportunities (Shane & Venkataraman, 2000; Tan, 2002). In summary, the definition of entrepreneur seems to evolve over time, thus adds credence to the notion that there is no generally accepted definition of an entrepreneur.

Furthermore, entrepreneurship is a multi-disciplinary phenomenon and hence its definition is ideally multi-dimensional (Busenitz et al., 2000). Any discipline-Centred approach to define entrepreneurship will inevitably omit parts of entrepreneurship or oversimplify it to fit existing theory (Shapero & Sokol, 1982). At the same time, it is equally important to exclude certain roles, for example, administrator and investor from entrepreneurship (Vesper, 1982).

Following from the preceding discussion, entrepreneur in this study is defined as someone who owns and manages company or companies at the time this survey is conducted. The reason that entrepreneur is not necessary the founder is twofold. Firstly, this study includes entrepreneur who inherited their family business or businesses. Secondly, this study focuses on the export intention, hence, owning and managing the company or companies is more relevant than founding. The important elements of opportunity and cross national borders in the definition of international entrepreneurship will guide questionnaire development which will be elaborated in the next chapter on Research Methodology.

International entrepreneurship is at the intersection of international business and entrepreneurship (McDougall & Oviatt, 2000). Previously, international entrepreneurship is defined as “a combination of innovative, proactive and risk-seeking behaviour that crosses national borders and is intended to create value in organizations” (McDougall & Oviatt, 2000, p. 903). As mentioned earlier, innovative, proactive and risk-seeking coalesce into entrepreneurial orientation, consequently, the definition of international entrepreneurship can be simplified into “entrepreneurial orientation that crosses national borders and is intended to create value in organizations”.

Recent research seems to emphasize the role of opportunity identification in international entrepreneurship. As such, international entrepreneurship is now define as “...the process of creatively discovering and exploiting opportunities that lie outside a firm’s domestic markets in the pursuit of competitive advantage” (Zahra & George, 2002) and “international entrepreneurship is the discovery, enactment, evaluation and

exploitation of opportunities – across national borders – to create future goods and services” (Oviatt & McDougall, 2005a, p. 540).

#### 1.4 Scope of study

A productive direction for entrepreneurship research is to develop models and theories rooted in the social sciences underlying the entrepreneurial process, for example, psychology, sociology and economics (Bygrave & Hofer, 1991). In a similar vein, the study of international entrepreneurship should use theories and frameworks from multiple disciplines, for instance, international business, entrepreneurship, psychology and sociology (Oviatt & McDougall, 2005a, 2005b). Simplistically, the relationships of international entrepreneurship with other disciplines are depicted in Figure 1.1 below.

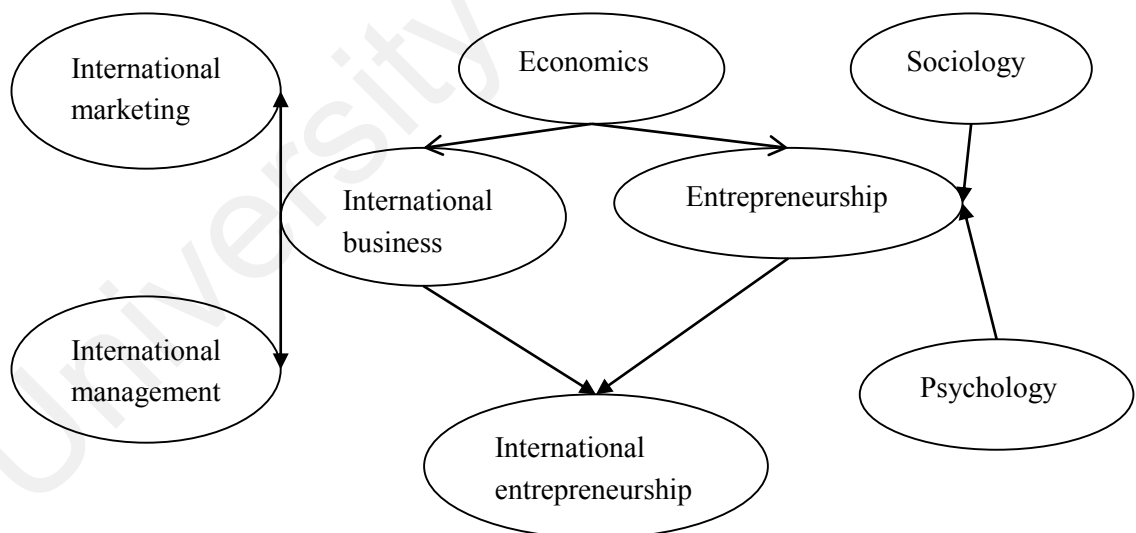


Figure 1.1 International entrepreneurship is multi-disciplinary

Following from the preceding discussion, the scope of this study is multi-disciplinary, that is, the interaction among international entrepreneurship, psychology and sociology as portrayed in Figure 1.2.

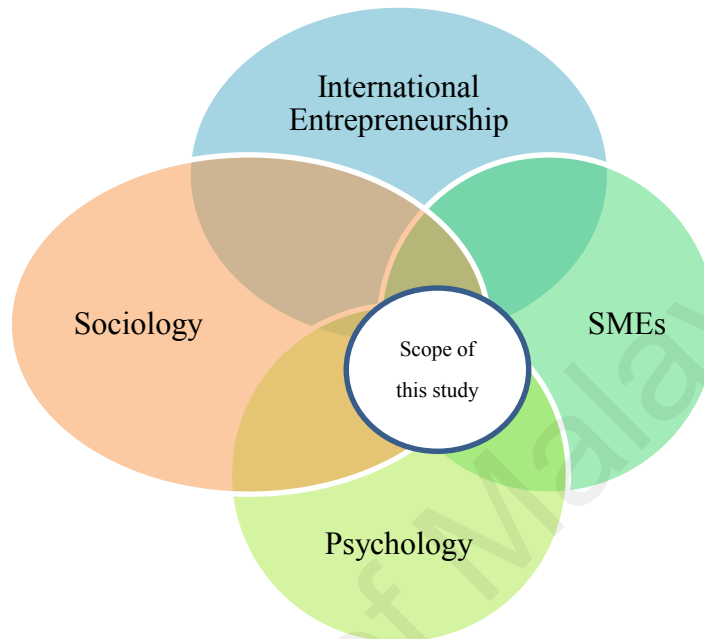


Figure 1.2 Scope of study

Internationalization includes many different activities and entrepreneurship includes businesses of all sizes. This study will concentrate on export by SMEs for three reasons. Firstly, entrepreneurship research has focused on smaller firms (Busenitz et al., 2000; Vesper, 1982). Secondly, SMEs are an important context for future international marketing research (Johansen & Knight, 2008). Thirdly, exporting is a significant aspect of many countries' international business in terms of economic value (Autio et al., 2000; Child & Rodrigues, 2005) and export is the most common international activity for SMEs (Acedo & Galan, 2011; Andersson et al., 2006; De Clercq, Sapienza, & Crijns, 2005; Doole & Lowe, 2008; Keupp & Gassmann, 2009; Lu & Beamish, 2001; Miesenbock, 1988; Reid, 1981).

The control of extraneous variables is a necessary condition for establishing internal validity (Malhotra, Hall, Shaw, & Oppenheim, 2007). In other words, more conclusive results that facilitate interpretation and generalization pertaining to export by SMEs (Miesenbock, 1988). The effects of any exogenous or extraneous variable that could contaminate the cause and effect relationship have to be controlled through the process of matching environment or personal variables (Cavana, Delahaye, & Sekaran, 2001; Creswell, 2009).

Because cultural factors in the form of values are part of the proposed integrative theoretical framework, therefore, this factor is not controlled in this study (Steensma, Marino, Weaver, & Dickson, 2000).

The four variables controlled are product (food, beverages and agricultural produce), international activity (exporting), stage of internationalization (exporter and non-exporter) and country (Malaysia) (Miesenbock, 1988). Constraining this study to a single industry in a single country can ensure that variations in export intention will be more likely related to motivation instead of variations in market favourability or industry innovation stage (Autio et al., 2000). In addition, by controlling for industry and geography, the findings from this study will be more generalizable to the Malaysian food, beverages and agricultural produce industry.

Other major contextual characteristics to be controlled include firm size (Reid, 1981). Firm size is controlled by selecting respondents from SMEs (Keupp & Gassmann, 2009).



### **1.5 Level of analysis and time horizon**

Entrepreneurship is a phenomenon that can be studied at various levels. Each level of analysis provides unique insight and the synthesis of these insights from several levels yields a richer understanding of the phenomenon (Low & MacMillan, 1988). Research on exporting by SMEs should emphasize individual characteristics and how these affect processing of information related to export and influence exporting behavior (Reid, 1981). Other researchers suggest to examine international entrepreneurship at individual level (e.g. McDougall & Oviatt, 2000; Muzychenko, 2008).

Therefore, this study made a trade-off to focus on individual level only because to scrutinize many levels will greatly increase the complexity and the time required to complete the thesis. Generally, it is better to embrace a parsimonious approach to theoretical specification (Hair, Hult, Ringle, & Sarstedt, 2014).

Longitudinal research design provides richness of insight but it takes more time, effort and costs to execute. Again in view of the limited time frame, this study made another trade-off for cross-sectional approach which is easier to execute but clearly lack richer insights.

### **1.6 Significance of study**

Wider contribution by entrepreneurship is increasingly an important component of Malaysian economy. The government of Malaysia is actively promoting entrepreneurship among various groups; as such, there is a need to conduct more research on Malaysian entrepreneurs in order to churn out more future successful international entrepreneurs.

This research supports and extends the theoretical foundation of the influence of values on entrepreneurship via examination of the effects of entrepreneurial values on

export intention mediated by beliefs. This research hopes to provide empirical evidence for the multi-disciplinary integration of the Values Theory and the Theory of Planned Behavior in the field of international entrepreneurship.

The significance of this study lies in three aspects. First, by studying how values influence beliefs and export intention, it can enrich our understanding about SME entrepreneurs' way-of-thinking and motivation for internationalization.

Second, identification and understanding of how entrepreneur's value orientation affect salient beliefs and ultimately export intention is an issue that should be considered in the design of academic curriculum, training programme and economic development policies to facilitate international entrepreneurship, thus furthering Malaysia's position in world trade, achieve long-term economic growth and prosperity as envisioned in Vision 2020.

Third, studies of SMEs presently operating beyond national border can be used as a useful model for other SMEs to be more competitive internationally (Sulaiman et al., 2010). Thus, this study is important for various stakeholders.

Finally, this study is timely because globalization and export by SMEs are global phenomena as well as current and important research issues. Besides, this scholarly inquiry is contemporary as evidenced by recent literature, for example, Psychology of Entrepreneurs (Baum, Frese, Baron, & Katz, 2007), Entrepreneurship and Culture (Freytag & Thurik, 2010a), Personality and Entrepreneurship (Caliendo & Kritikos, 2012) and International Entrepreneurship Research (1989 - 2009): A Domain Ontology and Thematic Analysis (Jones et al., 2011), Cultural Values and Entrepreneurship (Krueger, Liñán, & Nabi, 2013), Beyond Entrepreneurial Intentions: Values and

Motivations in Entrepreneurship (Fayolle et al., 2014).

## **1.7 Structure of thesis**

An overview of the structure of this thesis serves to guide readers to follow the development of this study. This thesis is structured into five chapters. Chapter One introduces the research topic, its relevance to previous work in the field of entrepreneurship and significance. Chapter Two reviews extant literature to understand international entrepreneurship and its related disciplines, identifies research gaps, develops the research framework and lists assumptions for the current study. Chapter Three outlines the research questions, research objectives, hypotheses, research paradigm and summarizes the research methodology used in this study. Next, Chapter Four tabulates results from various recommended statistical tests. Finally, Chapter Five discusses the main findings, implications, limitations, suggestions for future research on Malaysian SME entrepreneurs, reflections about this Ph.D. journey and concludes this study.

### **1.7.1 Chapter Two: Literature Review**

All research needs to be informed by existing knowledge in a subject area (Rowley & Slack, 2004). Literature review is essential for several reasons. Firstly, it helps in understanding the key theoretical concepts and terminologies, as well as identifying, organizing and summarizing the state-of-the art in international entrepreneurship. Secondly, it provides conceptual and empirical justifications for the research topic, research gaps, research objectives, research framework, hypotheses and potential contributions. Thirdly, it suggests appropriate research methodology for analyzing and

interpreting results. Fourthly, it also links the current results with earlier results, whether to confirm, extend or even disprove prior studies.

### **1.7.2 Chapter Three: Research Methodology**

This chapter reviews the methodological literature. It outlines the research paradigm chosen to guide the conduct of this research and describes in detail the appropriate methodology and process to test the proposed theoretical framework.

### **1.7.3 Chapter Four: Data Analysis and Results**

This chapter provides details about testing the reliability and validity of the measurement models. This is followed by examining the structural model and reporting of recommended descriptive and inferential statistic.

### **1.7.4 Chapter Five: Discussion and Conclusions**

This final chapter begins with a review of the research objectives and hypotheses. This chapter presents the interpretation of statistical results to derive main findings, link current results with previous results and summarizes important findings. Moreover, it determines whether the research objectives have been achieved. Contributions, implications, limitations and suggestions for future research will be discussed. This thesis ends with conclusions.

## **1.8 Conclusions**

Shifts in the competitive environment and a globalized economy make internationalization attractive to entrepreneurial firms (Zahra & George, 2002). Consequently, in a dynamic international market, international entrepreneurship is

increasing in importance (Hisrich et al., 1996). Hopefully, this study on the subject of international entrepreneurship will further enlighten our understanding of this important subject area.

In line with the trend of globalization, Malaysian SME entrepreneurs should expand their view from one that is Centred on domestic needs to one that is more global. The overall vision of the SME Masterplan is to create a new breed of SMEs that are globally competitive (SME\_Corporation\_Malaysia, 2014b). With such a comprehensive framework in place, the key challenge now lies in the implementation of the Plan which will require a shift in the mindset of all stakeholders in the SME Masterplan (2012 – 2020) to make this a reality. In this respect, a sound understanding of SME entrepreneurs' motivations for export is essential. Additionally, for greater effectiveness of entrepreneurship development programmes and public policies, it is also important to understand the similarities and differences in motivations across gender, ethnicity and current exporting status.

Based on extant theoretical and empirical literature, this study aims to propose and test the link between a detailed and coherent framework from values to entrepreneur's export intention mediated by beliefs and moderated by gender, ethnicity and current exporting status. This study is important for academics, practitioners and public policy makers. Finally, this study supports the SME Masterplan (2012 – 2020) by increasing the number of research projects with SME involvement.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter sets the stage for the present study. The purposes of reviewing an extant body of literature are to identify research gaps and develop a research framework. This chapter employs a structured method of literature review, critically evaluating theories and empirical evidence and organises evidence to address the research questions.

This chapter is organised as follows. It begins with the pivotal role played by theory. It then reviews literature on three bodies of knowledge: (a) entrepreneurship, small and medium-sized enterprises and international entrepreneurship, (b) culture, values and their relationship to entrepreneurship and (c) psychology and entrepreneurship. Next, this chapter lists the research gaps, proposes an integrative framework, develops propositions and discusses the assumptions. This chapter ends with conclusions.

#### **2.2 Importance of literature review**

It is important to note prior influential studies for guidance on how to develop theory for this study. Academic researchers need to recognise the past because good entrepreneurship research must be consciously related to prior studies. Post literature review, a theory will necessitate researchers to position their studies in the context of existing scholarly work, meaning whether to confirm, extend or even attempt to disprove prior studies (Gartner, 1989). A theory will enable the researcher to ‘see’ observations that were not noticed in previous studies. In other words, the theory helps to visualise the explicit and implicit suggestions in the literature (Gartner, 1989). Furthermore, theory

also provides a specific purpose and logic to a study, which is the heart of a manuscript (Gartner, 1989).

Kerlinger (1973, p. 4, cited in Gartner, 1989) defines formal theory as “a set of interrelated constructs (concepts), definitions and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena”.

The definition above means that a theory explicates by providing reasons why certain variables will influence or are being influenced by other variables to suggest causality and prediction (Gartner, 1989). This means that a theory offers a model of the phenomenon and definitions of all variables. Furthermore, it is testable and serves as the basis for empirical research (Paulin, Coffey, & Spaulding, 1982). A theory delineates a field’s limitations, determines the core questions to be examined and the research methodology (Zahra, 2007). Theories tell us what is important, why it is important, what determines this importance and what are the expected outcomes? Consequently, academic research should be theory driven (Low & MacMillan, 1988).

Amit *et al.* (1993, p. 819) defined a theory of entrepreneurship as “a verifiable and logically coherent formulation of relationships or underlying principles that either explain entrepreneurship, predict entrepreneurial activity or provide normative guidance to prescribe the right action in particular circumstances”. For entrepreneurship to advance as a scholarly field that develops informed knowledge and generates useful entrepreneurship models, it is essential for entrepreneurship researchers to develop and test theories built on solid foundations from the social sciences (Bygrave & Hofer, 1991; Rowlands, 2005); this is a challenging task (Zahra, 2007). Good theory should be

deterministic, which means that a given set of antecedents will lead to a specific outcome (Bygrave & Hofer, 1991). The value of a good theory is in its predictive powers (Yeh, 1988) and good theory is a powerful tool in making informed decisions (Davidsson, 2002; Fishbein & Yzer, 2003). Through the pursuit of rigorous research and development of entrepreneurship theory, the academic community generate informed knowledge useful for the academic, practitioner and policy makers (Low & MacMillan, 1988). To develop entrepreneurship theories that are testable, innovative, comprehensive and theoretically rigorous is an incessant research priority (Zachary & Mishra, 2011).

### **2.3 The building blocks of theory development and value-added contribution to theory development**

This section reviews the suggestions by Whetten (1989) regarding building blocks of theory development which consists of 'What', 'How', 'Why' and 'Who, Where, When' and evaluation criteria whether a theory constitutes a value-added contribution to theory development. For this study, the former is to guide model building whereas the latter is to evaluate whether the model contributes to theory development.

#### **2.3.1 Building blocks of theory development**

'What' refers to the variables to explain the phenomena under investigation. It must be comprehensive (meaning all relevant variables are included) and balance with parsimony (meaning exclude unimportant variables). Even though Gartner (1989) suggested researchers to use complex models as frameworks for a contingency view of



entrepreneurship, it is best to consider the trade-off between comprehensiveness and parsimony.

‘How’ are the variables related, that is, causality. This set of relationship with arrows and boxes can be graphically depicted and assessed for parsimony and completeness. The ‘What’ and ‘How’ elements make up the domain of the theory.

‘Why’ refers to the underlying dynamics for the inclusion of variables as well as the proposed causality, that is, the selection rationale makes up the assumptions of the theory. In this manner, researchers provide compelling and logical justifications for altered views and extend the boundaries of knowledge. Therefore, a credible model with underlying logic and testable is derived from the combination of the ‘Hows’ and the ‘Whats’.

The ‘What’, ‘How’ and ‘Why’ will lead to theoretically, rather than empirically or vacuous dominated discussions of the implications of results from scholarly investigation. These three elements provide the necessary constituents of theory, which are description and explanation.

‘Who’, ‘Where’ and ‘When’ refer to the contextual limitations of the proposed theory, that is, the limits of generalisability should be discussed.

Although Amit *et al.* (1993) contends that theory should be robust across situations, environments or populations, Zahra (2007) however, cogently argues for the importance of context, that is, understanding the nature, dynamics, uniqueness and limitations of the context to enrich future studies. Entrepreneurship researchers borrow theories developed in other disciplines with assumptions not applicable to entrepreneurial contexts is a major concern (Zahra, 2007). In other words, although theory-based research can contribute greatly to the understanding of complex entrepreneurial phenomena, it must also pay

special attention to the context of research, such as complexity, uniqueness and richness. As such, researchers have to fully understand the foundations of the borrowed theory and explain the relevance of the new setting and its implications for the boundaries of the borrowed theory. There are three suggestions to contextualize borrowed theory (Zahra, 2007). First, establish relevance of theory to the new phenomenon. Second, provide a fair test of basic arguments underlying the theory. Third, give back to theory, which means how the results alter the assumptions and predications of the theory.

### **2.3.2 Value-added contribution to theory development**

There are three criteria to evaluate whether a theory constitutes a value-added contribution to theory development (Whetten, 1989). Firstly, 'What' and 'How' involve the addition of a new variable to provide new theoretical insights that significantly change our understanding of the phenomena. Secondly, 'Why' commonly involves importing a perspective from other fields to challenge the unrealistic assumptions of theories. Finally, 'Who', 'When' and 'Where' deal with revisions in the 'How' and 'What' of the model to accommodate any anomaly as well as its applications under qualitatively different conditions.

Additionally, the three broad themes of Value-added Contribution to Theory Development are: (a) critiques should focus on multiple elements of the theory, (b) theoretical critiques should marshal compelling evidence, for example, logical (that is, the theory is not internally consistent), empirical (its predictions are inconsistent with the data accumulated from several studies) or epistemological (its assumptions are invalid—given information from another field) and (c) in general, theoretical critiques should

propose remedies or alternatives (that is, feedback to theory). The elements of theory building and evaluation will be applied in Chapter 5 Discussions and Conclusions to judge the theoretical contributions of this study.

The following sections focus on reviewing existing knowledge related to entrepreneurship and integrating them into specific subtopics linked to the purpose of this study.

## **2.4 Entrepreneurship and entrepreneurs**

Entrepreneurship is a worldwide phenomenon. Entrepreneurship promotes employment, economic growth, economic flexibility and innovation in terms of quality and competition (Hisrich et al., 2007) and it is the basis for economic hope (Churchhill & Lewis, 1986). Entrepreneurship can be seen as a means to uplift an individual's economic status (Hagen, 1960). Through entrepreneurship, many people enter the society's economic and social mainstream or achieve social mobility (Hisrich et al., 2007). In sum, entrepreneurs shape the future good of humanity (Greenfield & Strickon, 1981). Due to its impact on a country, a wide spectrum of society, such as academic, political and mass-media, are interested to understand entrepreneurship (Davidsson, 2002).

Schumpeter (1959) describes the entrepreneur as someone who performs new combinations, such as opening a new market or setting up new organization. In his view, entrepreneurs utilise existing resources, irrespective of whether those resources increase or not, in a different way or in doing new things. Hagen (1960) labels entrepreneurs as highly selective rebellion because although they accept many of the traditional values of their culture but they innovate work and industry standards with new combinations of

resources, henceforth changing the status quo. Aldrich and Waldinger (1990) consider entrepreneurship, in the classic sense, as the rearrangement of resources in novel ways with the outcome of creating something of value.

## **2.5 Research on entrepreneurship and streams of entrepreneurship research**

In the preceding section, we addressed the importance of entrepreneurship and this section discusses the evolution of entrepreneurial research.

### **2.5.1 Research on entrepreneurship**

Churchill and Lewis (1986) contend that the domain of entrepreneurship is still young, complex, in a discovery and transition process, will attract more research from the academic community but the research directions are fragmented, creative and multi-faceted. Therefore, they advocated that the research on entrepreneurship should focus on significant questions.

### **2.5.2 Streams of entrepreneurship research**

The literature suggests that over the years, many scholars have attempted to classify the studies on entrepreneurship. For example, Paulin *et al.* (1982) identify four general topic areas or streams of entrepreneur research:

1. The entrepreneur as an individual.
2. The processes or mechanics of entrepreneurship.
3. The functions of entrepreneurship in society.
4. Supporting topics.

The studies on the entrepreneur as an individual include both psychological and sociological approaches to study entrepreneurial characteristics, personality and behaviour that test theoretical propositions about entrepreneurs, whereas entrepreneurship and society focuses on the social, political, economic or legal environment of the entrepreneur.

West (1997) develops an entrepreneurship research matrix with two dimensions of qualitative-quantitative research and macro-micro factors. Quadrant four (quantitative research and micro factors) generally contains descriptive studies examining the psychological and demographic characteristics of entrepreneurs, also known as 'traits' approach. Stevenson and Jarillo (1990) identify three main streams of entrepreneurial research. One stream deliberates why entrepreneurs act, that is, studying the causes of entrepreneurship, with the main question of 'Why' in the basic discipline of psychology and sociology (Table 2.1). The inquiry of 'causes' theorises entrepreneurship as an individual's psychological characteristic. This classification is consistent with Gartner's (1988) division of entrepreneurship research into research on the traits and characteristics of entrepreneurs and research on the behaviours of entrepreneurs.

Table 2.1 Contributions of disciplines to entrepreneurship (Stevenson & Jarillo, 1990)

Line of inquiry	Causes	Behaviour	Effects
Main question	Why	How	What
Basic discipline	Psychology, sociology	Management	Economics
Contributions	Importance of individual  Environmental variables are relevant		Entrepreneurship is the function by which growth is achieved (thus, not only the act of starting new businesses)  Distinction between entrepreneur and manager

### 2.5.3 Entrepreneurship is cross-discipline

Although entrepreneurship is generally associated with business, the preceding discussion shows that this field is not the sole domain of business. Entrepreneurship has been researched in the field of cultural anthropology (Wortman, 1987) and social psychology (Baron & Bryne, 2003). Shapero and Sokol (1982, p. 74) eloquently describe that “entrepreneurship is a label for a profound and pervasive human activity that is of interest to many disciplines but is not encompassed by anyone of them”.

Entrepreneurship is not uni-disciplinary (Schumpeter, 1959). The problem with single or uni-disciplinary research is “...each discipline has its own unique way of viewing entrepreneurship which remains relatively unaffected by the perspectives of other disciplines” (Herron, Sapienza, & Smith-Cook, 1991, p. 7). In other words, researchers from one discipline normally ignore entrepreneurship studies by fellow researchers in other disciplines. This approach results in different facets of entrepreneurship in a non-cumulative fashion (Campbell, 1991 cited in West, 1997) and

has the potential to cause confusion among researchers (Dimitratos & Jones, 2005). There is no single discipline that can adequately cover all aspects of entrepreneurship (Herron et al., 1991) and the absence of multi-disciplinary entrepreneurship theories also results in an incomplete understanding of the business landscape (Shane & Venkataraman, 2000). Uni-disciplinary approach has not produced a generally accepted theory of entrepreneurship and hence, it is unlikely to have a clearly defined area of entrepreneurship enquiry (Low & MacMillan, 1988).

Due to the broad inter-disciplinary and complex nature of entrepreneurship, it may be too ambitious to expect a complete theory of entrepreneurship. However, the differences in various disciplines might be aspects of the same whole and as such, have some similarity to the 'blind man and the elephant' story (Gartner, 2001). To summarise, no single disciplinary framework can explain the complete entrepreneurial phenomenon (Shapero & Sokol, 1982) but multi-disciplinary viewpoints can explain a greater portion of the whole (Herron et al., 1991; Zachary & Mishra, 2011).

Entrepreneurship research is characterised as integrative, inclusive and practical (Davidsson, Low, & Wright, 2001). Many scholars (e.g. Gartner, 1989; Low & MacMillan, 1988; Wortman, 1987) agree that intrinsically, the phenomenon of entrepreneurship is multi-disciplinary. Entrepreneurship researchers have a responsibility to 're-search' beyond the traditional boundaries of entrepreneurship and adopt a cross disciplinary approach (Gartner, 1989). Many scholars (for example, Amit et al., 1993; Carsrud et al., 1986) advocate cross-disciplinary, sometimes also known as multi-disciplinary or inter-disciplinary, perspectives in order to make significant contributions in entrepreneurship research.

There is no consensus, at this juncture, about the appropriate scope of entrepreneurship but the challenge facing entrepreneurship research is to create a community of scholars from multiple disciplines (Davidsson et al., 2001). The multi-faceted nature of entrepreneurship has attracted scholars across disciplines to recognise the importance of entrepreneurship (Ireland & Webb, 2007). The entry of scholars from other disciplines into the field of entrepreneurship has many positive outcomes. It can cast a wider conceptual/theoretical net for comprehensive, varied and innovative approaches (Zachary & Mishra, 2011). Entrepreneurship will be informed by multiple theories and disciplines (Davidsson et al., 2001) and benefit from better collaboration among research scholars (Zachary & Mishra, 2011). All these can enrich the quality of future entrepreneurship research (Zahra & Dess, 2001). It is noted that the annually published Global Entrepreneurship Monitor developed a model that reflects the multi-faceted nature of entrepreneurship (Bosma & Levie, 2010).

Similarly, international entrepreneurship is also multi-disciplinary (Coviello, McDougall, & Oviatt, 2011) and the multi-disciplinary paradigm is a strategic issue in international entrepreneurship research (Coviello & Jones, 2004). Nevertheless, Keupp and Gassmann (2009) found that many international entrepreneurship studies failed to use theoretical frameworks from either international business or entrepreneurship. The study of international entrepreneurship should use theories and frameworks from international business, entrepreneurship, anthropology, psychology and sociology (Bradley, 2005; Oviatt & McDougall, 2005a). In this manner, international entrepreneurship is being informed by and informing theories and perspectives from other domains (Coviello et al., 2011). This multi-disciplinary approach augurs well with



Schumpeterian reasoning that diversity fuels innovation, opportunity and sustainable development (Coviello et al., 2011). At the same time, there are calls for cautious consideration of what theories might help to explain various aspects of international entrepreneurship phenomena and how such theories might be productively integrated to achieve better and more comprehensive explanations or new insights (Coviello et al., 2011).

## **2.6 Small and medium-sized enterprises and international entrepreneurship**

### **2.6.1 Small and medium-sized enterprises and internationalization**

In an era of globalisation of economy, a critical new challenge for entrepreneurs is working on an international scale. Although growth by internationalisation is a key strategic option for both small and large firms (Lu & Beamish, 2001), it is well established in the literature that entrepreneurs from a small country are more inclined to venture internationally, relative to their counterparts from a large country (Bosma & Levie, 2010). For the last two decades, research on small and medium-sized enterprises (SMEs) internationalisation has grown tremendously (Acs et al., 2003). SMEs tend to export (Reynolds, 1997 cited in Lu & Beamish, 2001) due to their limited resources in many aspects.

### **2.6.2 International entrepreneurship**

International entrepreneurship (IE) is a key topic area in entrepreneurship (Hisrich et al., 2007) and is researched by scholars worldwide (Coviello et al., 2011). It is an emergent field of study where researchers focus on the specific issues that confront entrepreneurs

who expand their ventures internationally (Hisrich et al., 2007; Muzychenko, 2008; Oviatt & McDougall, 2005a). International entrepreneurship is an entrepreneurial type of organisation with international geographical scope, that is, internationalisation of SMEs (Figure 2.1). The domain of international entrepreneurship is a more sparsely studied area in relation to the other three quadrants of entrepreneurship, domestic marketing and international business (Ruzzier, Hisrich, & Antoncic, 2006).

		Geographical scope	
		Domestic	International Entrepreneurship
Type of organization	Entrepreneurial	Entrepreneurship	International entrepreneurship
	Large, established	Domestic marketing	International business

Figure 2.1 The domain of international entrepreneurship with regards to other academic literature on organisations (Ruzzier et al., 2006)

Internationalisation is an act of entrepreneurship (Barringer and Greening, 1998 cited in Lu & Beamish, 2001) because it is consistent with the essence of entrepreneurship as outlined by Schumpeter (1934 cited in Andersson, 2000), which is, innovation. There are differences in entrepreneurs' aspirations to internationalise (Bosma & Levie, 2010). Reid (1981) investigates the interaction between firm and decision-maker characteristics in the export behaviour of small firm, that is, the role of decision-maker or entrepreneur in exporting. He divides the innovation process of export into five stages, which are export awareness, export intention, export trial, export evaluation and export acceptance

(see Table 2.2 below). He further postulates that at each stage of the process of export, specific firm and decision-maker variables play particular roles. This model needs not end at Stage 5 but can be a cycle, for example, for a firm at stage five to export to new market(s), it may experience stage one to stage five again, that is, re-start the cycle.

Table 2.2 Export behaviour as an adoption of innovation process (Reid, 1981)

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	Export awareness	Export intention	Export trial	Export evaluation	Export acceptance
Export adoption stages	Problem or opportunity recognition, arousal of need	Motivation, attitude, beliefs and expectancy about export contribution	Personal experience from limited exporting	Results from engaging in exporting	Adoption of exporting/ rejection of exporting
Decision maker - variables involved	Past experience, export-related or not; type, level & amount of foreign information exposed to and associated individual characteristics, unsolicited foreign orders	Expectations from entry into foreign market, foreign market orientation, export orientation and underlying attitudes toward foreign involvement	Sought foreign orders through search of foreign markets	Profitability, sales stability	Export expansion activity shown by continued export growth as (1) increased exports as a percentage of sales, (2) continued entry into new markets, (3) continued absolute export growth, (4) continued introduction of new products into export markets.

## **2.7 Culture, values and entrepreneurship**

### **2.7.1 Culture influences behaviours**

Culture is overwhelmingly complex and hence, is not a topic that can be discussed comprehensively in this business Ph.D. thesis. Therefore, this section aims to review some key aspects of culture related to entrepreneurship in order to narrow the concept of 'culture' so that it includes less and reveals more (Keesing, 1974).

Culture can be categorised into objective and subjective cultures. Objective culture consists of societal institutions. Subjective culture, also called the hidden or invisible dimension of culture (Abdullah, 1996a), consists of shared norms, roles, values, associations, particular ways of categorising experience and so on (Triandis, Bontempo, Leung, & Hui, 1990). The subsequent literature review on culture focuses on the subjective culture.

It is well established in the literature that culture has a strong and unconscious influence on many different individual-level outcomes such as perceptions, beliefs and behaviour (Abdullah, 1992; Adler, 1983; Hofstede, 2001; Kirkman, Lowe, & Gibson, 2006; Leung, Bhagat, Buchan, Erez, & Gibson, 2005; Lonner & Adamopoulos, 1997). Schneider (1989) suggests that culture can be considered as assumptions regarding the environment, control and uncertainty which in turn affect behaviours to be either proactive or reactive and to be directed more externally or internally. Geertz (1973, p. 44 cited in Roberts & Boyacigiller, 1984) suggests that "culture is best seen...as a set of control mechanisms, plans, recipes, rules, instructions for the governing of behaviour" and Harris (1979, p.47 cited in Roberts & Boyacigiller, 1984) put forward that culture refers to "the learned repertory of thoughts and actions exhibited by members of social

groups ...”.

Hofstede defines culture as “the collective programming of the mind which distinguishes the members of one group of people from another” (1993 p. 89). The mind refers to the head for thinking (that is, cognition), heart for feeling (that is, attitude) and hands for acting (that is, behaviour), which in turn lead to beliefs, attitudes and skills (Hofstede, 2001). Hofstede’s idea of culture has been influenced, to a certain extent, by Kluckhohn. These mental programs are acquired and developed in family, schools and organisations (Hofstede, 2001) and “conditions people to see, think and behave in certain ways and gives rise to a modal personality which is characteristic of that culture” (Crookes & Thomas, 1998, p. 584). The five dimensions of culture as conceived by Hofstede showed significant and meaningful correlations with geographic, economic, demographic and political national indicators (Hofstede, 2001). Culture is a construct, meaning it is “not directly accessible to observation but inferable from verbal statements and other behaviours and useful in predicting still other observable and measurable verbal and nonverbal behaviour” (Hofstede, 1993, p. 89).

Despite the popularity of Hofstede’s five dimensions of culture, there are some criticisms. The work of Hofstede on culture is work-related, in other words, it is not the same as national culture (Sorge, 1983 cited in Yeh, 1988). Besides that, there exists other domains of culture in addition to Hofstede’s which have been neglected (Hayton et al., 2002; Yeh, 1988). Other limitations of Hofstede’s cultural dimensions include the notion that culture is implicitly stable or static (Kirkman et al., 2006; McGrath, MacMillan, Yang, & Tsai, 1992b) and it is broadly defined (Hayton et al., 2002). Although culture demonstrates a statistically significant relationship with individual activity in many

studies but the strength of the relationship is not strong (Leung et al., 2005). This result suggests that culture and other variables are needed in order to explain a larger amount of variance in behaviour. Consequently, scholars have suggested that it is more productive to investigate how and when national culture makes a difference, rather than whether or not it makes a difference (Leung et al., 2005).

Although culture can act as an antecedent, a moderator or a mediator and a consequence (Leung et al., 2005), the vast majority of the cross-cultural methodologies explicitly assumed culture as an antecedent to thought and behaviour (Lonner & Adamopoulos, 1997). Whether it is culture as antecedent to behaviour (Lonner & Adamopoulos, 1997) or culture's consequences (Hofstede, 2001), both are actually two sides of the same coin.

The role played by culture in promoting economic activities has been debated by renowned classic theorists (Begley & Tan, 2001). Previous research has shown that national culture, albeit measured differently, has an impact on major business activities. Moreover, the business of international business is culture (Hofstede, 1994). Many scholars argue that culture affects entrepreneurial behaviour (e.g. Davidsson & Wiklund, 1997; Hechavarria & Reynolds, 2009; Licht, 2010; Tan, 2002). This means that culture motivates individuals to engage in entrepreneurial behaviours (Mueller & Thomas, 2000). Culture may impact the supply of entrepreneurs either by influencing preferences of a society for entrepreneurship (Davidsson, 1995 cited in Hisrich et al., 2007) or developing the entrepreneurial traits of the people in a society (Davidsson & Wiklund, 1997). Alternatively, culture may impact entrepreneurship indirectly through contextual factors

such as the education system to decide the quantity and quality of entrepreneurship (Hisrich, 1996 cited in Hisrich et al., 2007).

The cultural dimension merits further investigation in entrepreneurial scholarship (McGrath, MacMillan, & Scheinberg, 1992a) as understanding the relationship between culture and entrepreneurship is vital to the internationalisation of the entrepreneurship theory (Hisrich et al., 2007). A study by McGrath *et al.* (1992a) suggests that culture may have a predictable relationship with propensity for entrepreneurship. Furthermore, empirical studies have shown that cross-national differences in culture can affect international entrepreneurship (Tung & Verbeke, 2010). Although Basu and Altinay (2002) conclude that, contrary to expectation, culture is not an important influence on entrepreneurial behaviour, their measurement of culture using religion solely could be flawed due to the overwhelming complexities of culture.

For scholars studying the relationship between culture and entrepreneurship, the first problem encountered is a lack of precision in the definition of culture (McGrath et al., 1992b). Some entrepreneurship scholars (e.g. George & Zahra, 2002) adopt a broad definition of culture to refer to the enduring set of values of a nation, a region or an organisation. Because culture is overwhelmingly complex, it is, as such, vital to examine what dimensions of culture stimulate individuals to participate in entrepreneurship (Begley & Tan, 2001; Hechavarria & Reynolds, 2009; Hisrich et al., 2007; Low & MacMillan, 1988). In other words, to examine what types of culture are conducive for entrepreneurship? A conducive entrepreneurial culture, or legitimization in Etzioni's (1987) terminology, means a society that highly values entrepreneurial behaviours. In other words, entrepreneurial activities are considered desirable according to a society's

culture (Hechavarria & Reynolds, 2009).

By far, the most popular concept of culture used in entrepreneurship research is the one proposed by Hofstede (Linan & Chen, 2009). Hofstede's taxonomy of significant cultural dimensions facilitates explanation of behavioural preferences of business people (Davidsson, 2002). Existing literature seems to suggest that ideal cultures that facilitate entrepreneurial endeavours are generally those high in the dimension of individualism, low in the dimension of uncertainty avoidance, low in the dimension of power distance and high in the dimension of masculinity (Hayton et al., 2002; Thomas & Mueller, 2000).

Nevertheless, some shortcomings of Hofstede's conceptualisation of culture in the context of entrepreneurship studies include (i) majority of empirical studies have inadvertently ignored the existence of other culture domains, (ii) temporal inconsistency relationships between some cultural dimensions and national rates of innovation (Shane, 1993 cited in Hayton et al., 2002), (iii) unsystematic correlations with aggregate indicators of entrepreneurship (Davidsson & Wiklund, 1997), (iv) it is not developed specifically for entrepreneurship (Hayton et al., 2002), (v) this measure of culture cannot satisfactorily explain cross-country differences in entrepreneurial activity (Busenitz et al., 2000) and (vi) Hofstede's dimensions of culture is at group level, whereas entrepreneurship is at individual level. It is speculated that the unsystematic correlations could possibly be due to shifts in culture because culture is malleable (McGrath et al., 1992b), albeit gradually over time, as there are no updates on these cultural dimensions. Consequently, some researchers suggest to abandon Culture's Consequences, to explore new territories and to adopt a new 'paradigm' (Kirkman et al., 2006).



In contrast to the common approach of using Hofstede's dimensions, McGrath and MacMillan (1992) propose the notion of entrepreneurial culture, which consists of a basic set of beliefs or core set of perceptions irrespective of national cultures. McGrath and colleagues (1992b) suggest that in cultures rich in individualism and innovation, where unplanned activities are preferred and small organisations are the norm, there is a greater interest in entrepreneurship. Similarly, Mitchell *et al.* (2002) conclude that there exists a universal culture of entrepreneurship based on entrepreneurial cognitions.

In the model of national culture and entrepreneurship (Hayton et al., 2002), national culture is manifested in the forms of (i) needs and motives, (ii) beliefs and behaviours, (iii) cognition and (iv) cultural values. This model has several shortcomings. Firstly, these four forms of 'national culture' only reflect the objective aspect of culture as previously discussed. Secondly, Hayton and his co-authors acknowledged the methodological problem of distinguishing cultural values and individual values and beliefs. This problem arises because their review excluded studies from the broader social science disciplines such as sociology. From the literature surveyed in the fields of anthropology and sociology, it is evident that culture is not identical with values because culture is at group level whereas values are at individual level and this issue will be elaborated in Section 2.7.2.

Overall, Hayton's model may create a research methodology problem because they are at two different levels of analysis, as well as omitting the causal effect of subjective culture. However, this model provides a useful idea to better classify and organise the 'national culture' into a theoretically-driven process model leading to the integrative theoretical framework proposed for this research as outlined in Section 2.9.3. The two

major contextual variables of cultural and national environments can account for differences in entrepreneurial behaviour and prior studies also suggest that even after controlling for the national context, culture still significantly affects entrepreneurial activity (Tan, 2002). Similarly, in the context of international entrepreneurship, mental programming and institutional norms will determine the decisions about the pattern of internationalisation (Child & Rodrigues, 2005).

### **2.7.2 Values is the core of culture**

It is well documented in the existing literature that there exist different levels of culture. Hofstede (1991b, 2001) suggests four layers of culture which consists of symbols, heroes, rituals and values. Triandis *et al.* (1990) identify three levels of culture: (i) cultural level (shared by similar language or close geography, labelled as subjective culture), (ii) demographic level (shared by gender or age group within a culture) and (iii) the individual level. Moreover, Schein's model (1992 cited in Leung et al., 2005) theorises culture as a multi-layer construct. The first, most external layer is made of observed artifacts and behaviours; the second, deeper layer is values; the third, deepest level, which is invisible and often taken for granted, is basic assumption. Therefore, based on the evidence in the literature, there is an individual level of culture known as values.

At the same time, a considerable amount of evidence has been accumulated in literature regarding values as the core of culture. Kluchhohn (1951 cited in Hofstede, 2001) argues that the essential core of culture consists of especially values and Hofstede postulates that values are a core element of culture (1991b, 2001). Asma (1996a) describes values as the heart of a culture that guides behaviour at the unconscious level;

as such, the examination of values is key to a deeper understanding of culture.

Although some researchers used the word 'culture' and 'values' in combination or interchangeably, it is obvious that they are at two different levels based on evidence in extant literature. Cultural orientations significantly affect value priorities (Licht, 2010) but culture is not synonymous with values because in studying culture we compare societies, whereas in studying values we compare individuals.

### **2.7.3 Theories of values**

Hechavarria and Reynolds (2009) outline three major cross-cultural research undertakings relating to variations in culture (which is actually a mixture of culture and values), namely (1) Hofstede, (2) World Values Survey (WVS) by Inglehart and (3) values by Schwartz. It should be noted here that the work of Hofstede and Inglehart are at the group or nation level whereas Schwartz's work is at individual level.

In simple terms, values mean a preference for a certain type of action over other actions. Rokeach (1973 cited in Karahanna, Evaristo, & Srite, 2005) postulate that a value is an enduring belief that a specific mode of conduct is personally or socially preferable. A value system is a stable arrangement of beliefs about preferable modes of conduct along a continuum of relative importance (Rokeach, 1973 cited in Karahanna et al., 2005) (cf. Schwartz & Boehnke, 2004).

Hofstede (2001, p. 5) defines value as “a broad tendency to prefer certain states of affairs over others”. This is similar to Rokeach's (1972 cited in Hofstede, 2001, p. 5) definition of “to say that a person ‘has a value’ is to say that he has an enduring belief that a specific mode of conduct or end-state of existence is personally and socially

preferable to alternative modes of conduct or end states of existence”. Values are communally linked to form values systems or hierarchies (Hofstede, 2001, p. 6).

Values greatly influence our daily tasks such as the way we think, behave and relate with other people (Abdullah, 1992). Studies have demonstrated significant relationships between individuals’ value priorities and their attitudes and behaviour (Davidov, Schmidt, & Schwartz, 2008). Because of the pervasiveness of values in our lives, it is fundamentally impossible that human activities are free from value judgements (Hofstede, 2001), be it in business (Harris & Carr, 2008) or entrepreneurship (Peterson & Horvath, 1982). To ‘hold’ a value means that a particular issue is relevant (has intensity) and some outcomes are identified as ‘good’ and others as ‘bad’ (has direction). Furthermore, values can refer to the desired or to the desirable and the two are not the same (see Table 2.3).

Table 2.3 Distinction between the desired and the desirable and associated distinctions (Hofstede, 2001, p. 7)

Nature of a value	The desired	The desirable
Dimension of a value	Intensity	Direction
Nature of corresponding norm of value	Statistical, phenomenological, pragmatic	Absolute, deontological, ideological
Corresponding behaviour	Choice and differential effort allocation	Approval or disapproval
Dominant outcome	Deeds and/or words	Words
Terms used in measuring instrument	Important, successful, attractive, preferred	Good, right, agree, ought, should
Affective meaning of this term	Activity plus evaluation	Evaluation only
Person referred to in measuring instrument	Me, you	People in general

From this table, it can be seen that the desired is closely related to the Theory of Planned Behaviour, whereas the desirable is associated with the Values Theory (except 'Terms used in measuring instrument'). By separating these two constructs, this study attempts to relate values to behaviour and avoids the 'positivistic fallacy' because behaviour depends on both the person and the situation (Hofstede, 2001, p. 6).

Inglehart-Welzel's cultural map of the world (Inglehart & Welzel, 2010) is characterised by two dimensions of Tradition/Secular-rational and Survival/Self-expression. Traditional values hold certain beliefs: that religion is very important; the importance of parent-child ties; deference to authority, absolute standards and traditional family values; rejection of divorce, abortion, euthanasia and suicide and high levels of national pride and a nationalistic outlook. Secular-rational values are the opposite of traditional values. Survival/Materialist would be described by an emphasis on economic and physical security, whereas Self-expression/Post-materialist emphasises on the subjective well-being, self-expression and quality of life, environment protection, tolerance of diversity, rising demands for participation in decision making in economic and political life, imagination and tolerance, interpersonal trust, individual freedom and democracy. The World Values Survey is conducted once every several years and the most recent one was from 2010 to 2014. This classification of countries surveyed on the lines of ethnicity (e.g. China, Taiwan and Hong Kong), religion (e.g. Catholic, Islamic, Orthodox and Protestant) and linguistic (e.g. English speaking) can be considered as supranational dimensions of culture, which is the highest level in the hierarchy of culture (Karahanna et al., 2005). Although the World Values Survey results can provide a contextual motivation which will boost our understanding of how embedded social values

can either foster or hinder the entrepreneurial activity, unfortunately Hechavarria and Reynolds (2009) note that the World Values Survey has had limited application in entrepreneurial research. Furthermore, the World Values Survey is not suitable for this study as this research attempts to link values and behaviour at the individual level. To the best of this researcher's knowledge, to date, there is almost no entrepreneurship research utilising Hofstede's definition of value and the World Values Survey.

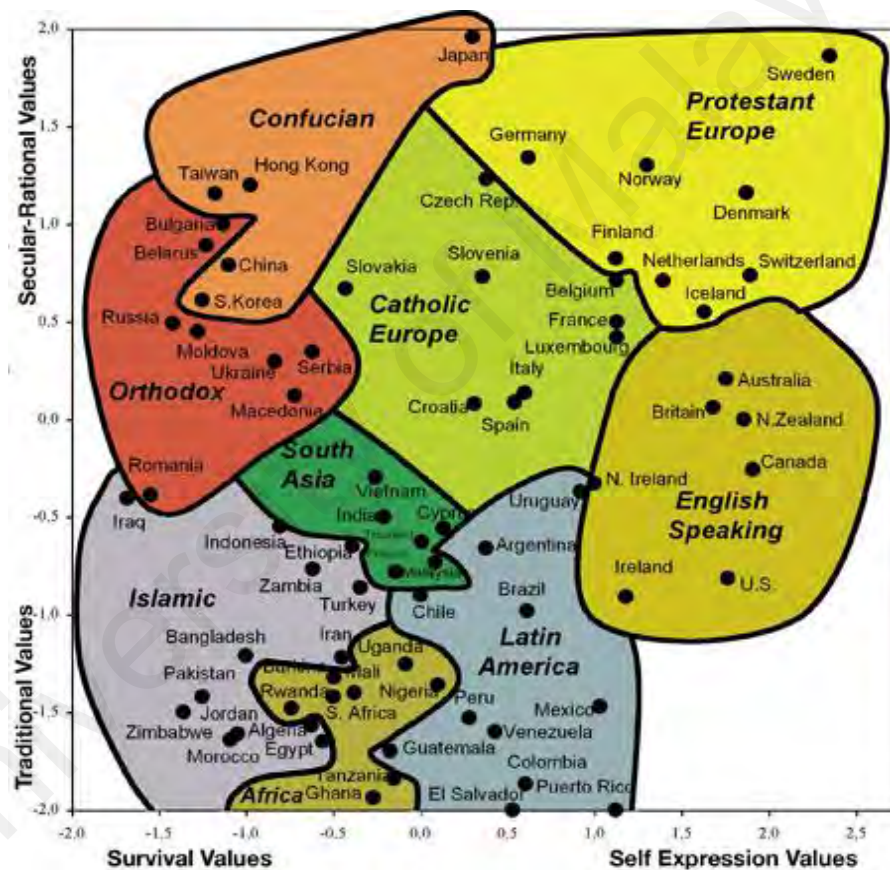


Figure 2.2 Inglehart-Welzel's cultural map of the world

Based on their survey of literature, Schwartz and Bilsky (1987) found that values are (a) concepts or beliefs, (b) about desirable end states or behaviours, (c) that transcend specific situations, (d) guide selection and evaluation of behaviours or events and (e) are ordered by relative importance. They hypothesise a structural relations framework among

value domains by making a theoretical assumption about the nature and sources of values. Values are cognitive representations of three types of universal human requirements, namely: biological needs of the organism, social interactional requirements for interpersonal coordination and social institutional demands for group welfare and survival. Schwartz (1992, 1994) proposes a comprehensive model of individual-level values or motivational goals that represent universal requirements of human existence and defines values as desirable, trans-situational goals, varying in importance, that serve as guiding principles in people's lives (Schwartz, 1994, 2007; Schwartz et al., 2001). Schwartz and co-researchers are continuously working on the comprehensive yet parsimonious structure relations of ten values. Lonner and Adamopoulos (1997) note that this framework is a contemporary theoretical perspective which is content-based, structural and dynamic.

Because value can be ranked by its importance relative to other values, therefore, it forms a system of value priorities (Schwartz, 1994) (see Figure 2.3). In other words, values form a motivational continuum (Schwartz & Boehnke, 2004). Value priorities can play an important role to explain socially significant attitudes and behaviour at both the individual and the country level (Schwartz, 2007). The definitions for the ten value types are in Table 2.4.

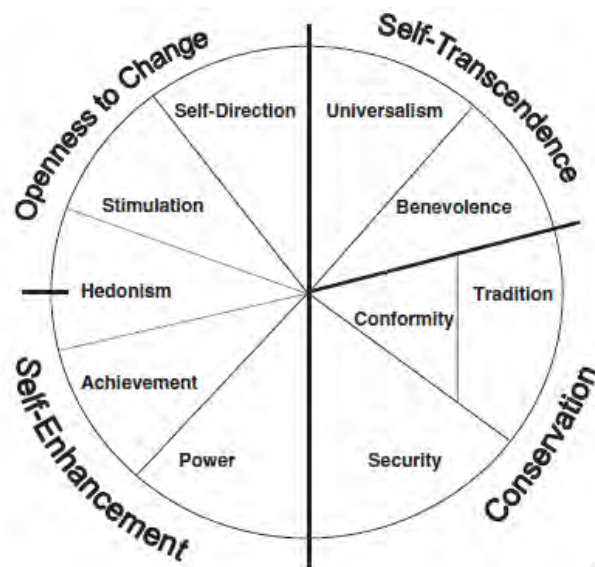


Figure 2.3 Structural relations among the 10 values and the two higher order dimensions

(Schwartz, 1994; Schwartz & Sagiv, 1995)

Table 2.4 Definition for each value type (Schwartz, 1994, 2007; Schwartz et al., 2001)

Value type	Definition
Power	Social status and prestige, control or dominance over people and resources
Achievement	Personal success through demonstrating competence according to social standards
Hedonism	Pleasure and sensuous gratification for oneself
Stimulation	Excitement, novelty and challenge in life
Self-direction	Independent thought and action - choosing, creating, exploring
Universalism	Understanding, appreciation, tolerance and protection for the welfare of all people and for nature
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
Tradition	Respect for, commitment to and acceptance of the customs and ideas that traditional culture or religion provide for the self
Conformity	Restraint of actions, inclinations and impulses likely to upset or harm others and violate social expectations or norms
Security	Safety, harmony and stability of society, of relationships and of self



It is well documented in the existing literature on the advantages of Schwartz's Values Theory over other theories, such as Rokeach's Value Survey, Hofstede's culture dimensions and Inglehart's World Values Survey. The first advantage of Schwartz's Values Theory is that he consulted the work of Rokeach and Inglehart to capture the essence of both theories in developing a unifying, broad and basic motivations theory relevant to a wide variety of attitudes and behaviour across the different domains of life (Schwartz, 2007). Therefore, this theory is easier to generate systematic, coherent hypotheses that relate the full set of value priorities to any other variable and it is a useful framework that will enrich analysis, prediction and explanation of value-behaviour relations. The second advantage is that these ten motivationally distinct, broad and basic values, most likely do not exclude any significant and basic values (Schwartz, 2007; Schwartz & Boehnke, 2004), that is, a comprehensive model. The third advantage is that this theory of basic human values has been extensively researched empirically and validated across different cultures (Davidov et al., 2008; Knoppen & Saris, 2009a) and therefore, is perhaps applicable in many populations (Schwartz et al., 2001). In other words, it is a pan-cultural typology of values with theoretical considerations (Leung & Bond, 2004) and there are significant theoretical and practical advantages in identifying a limited set of values recognisable in diverse groups (Schwartz, 1994). The fourth advantage is that it is empirically researched (Davidov et al., 2008) and extensively validated cross-culturally (Knoppen & Saris, 2009a).

To summarise, the variables in the construct of subjective culture enables researchers to understand, predict and maybe to control human behaviour (Triandis, 1972). As guiding principles in life, values affect the way people perceive and interpret their world,

identity, decisions, choices and behaviour (Adams, Licht, & Sagiv, 2008). Values are vital to understand various social-psychological phenomena (Bardi & Schwartz, 2003). Thus, value researchers can apply value theory to whatever social issues because it facilitates the derivation of an integrated set of hypotheses in a coherent manner (Schwartz, 1994). For example, individual value priorities are often used as independent variables for the prediction and explanation of individual and societal differences in attitudes, opinions and behaviours (Schwartz, 2007; Schwartz & Bilsky, 1987; Spini, 2003) by comparing the strength of relationships between values and behaviour (Bardi & Schwartz, 2003).

By behaving in ways that express values or promote attainment of values, this is a natural way to pursue important values (Bardi & Schwartz, 2003). Although most behaviours can express more than one value, some behaviours express predominantly one value (Bardi & Schwartz, 2003).

Instead of discussing the broad picture of culture and entrepreneurship, some authors use the more specific term of entrepreneurial values. Other terms synonymous with entrepreneurial values include entrepreneurship-relevant values and entrepreneurial-related values (Davidsson, 1995). The first major study of personal values of entrepreneurs was probably conducted by Hornaday and Aboud (1971).

Shapero and Sokol (1982) propose that the impacts of social and cultural factors on entrepreneurial perceptions of desirability and feasibility are mainly through the formation of individuals' value systems (Figure 2.4). Gasse (1982, 1986) suggests that situation and culture (labelled as cognitive orientations, which refer to attitudes, beliefs and values) lead to entrepreneurial action. Etzioni (1987) postulates that legitimization, which refer to a wide set of values and mores that act as a moral standard for specific

activities, constitute a major determining factor for a society's level of entrepreneurship. In other words, the values of the society are the immediate sources of legitimation. He further explains that legitimation is a continuous variable which ranges from highly supportive to highly unsupportive. This means that entrepreneurship may be considered as the key activity in one society or as an activity acceptable but of secondary importance in another society or as an activity carried out by the minority or a highly outlawed activity in yet another society. Consequently, changes in the level and content of legitimation will have an impact on entrepreneurship, that is, a change in societal legitimation is a major reason causing a change in individual preferences for entrepreneurship.

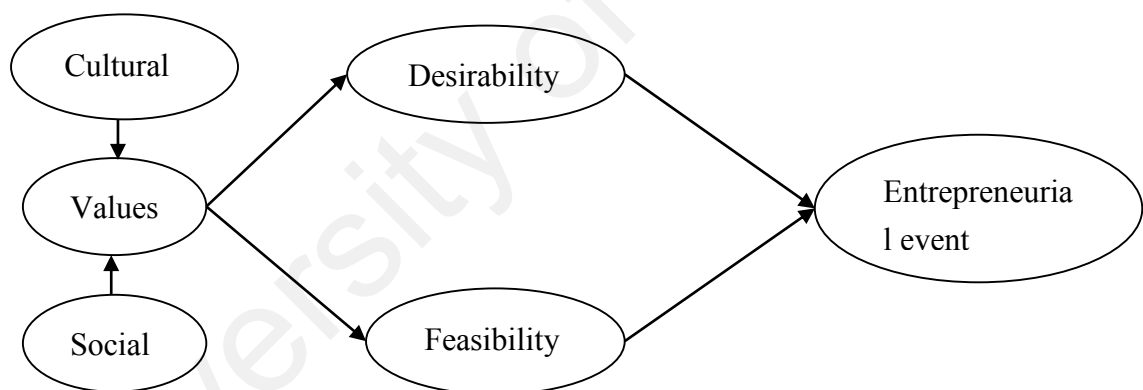


Figure 2.4 Impacts of social and cultural factors on entrepreneurial perceptions of desirability and feasibility

Other scholars such as Davidsson (1995) and Davidsson and Wiklund (1997) also posit that values and beliefs are related to entrepreneurial behaviour. McGrath *et al.* (1992a) argue that entrepreneurship research suggests a link between values and entrepreneurial activity and note rising research trends relating value systems to entrepreneurship. Holt (1997) concludes that the existence of universal entrepreneurial

characteristics is worth ongoing research and concurs with other scholars that by systematically studying human values, it is possible to gain valuable insights about patterns of behaviour. However, there seems to be mixed findings on the relationship between values and behaviour. For example, Bond *et al.* (2004) contend that endeavours to predict behaviour from value priorities often produce weak to moderate results.

Entrepreneurship is strongly value-laden (Peterson & Horvath, 1982). For example, in pursuit of goals that are meaningful, individuals make choices and decisions for their behaviour, choices that reflect, in part, goals and values in their culture (Greenfield & Strickon, 1981). Furthermore, entrepreneurs shape their companies to be congruent to their values (Hofstede, 1991b). In a similar fashion, exporting can be considered as a means to achieve important values of an entrepreneur (Reid, 1981).

Various conceptions of entrepreneurial values have been conceived by different scholars over the last four decades. Prior studies and theories suggest that sometimes, the term beliefs are also used to mean values which is acceptable in view of the definition of values (e.g. see Schwartz & Bilsky, 1987). Gasse (1982 p. 61) defines value orientation as “a generalized and organized conception, influencing behaviour, of nature, of man’s place in it and of man’s relation to man. In other words, it is a set of beliefs about various aspects of the world. More specifically in terms of entrepreneurship, it means the cognitive functioning of entrepreneurs”.

Some scholars (e.g. McGrath *et al.*, 1992a; 1992b) argue that entrepreneurship is associated with a collection of beliefs or a set of universal entrepreneurial values, irrespective of their base culture. Empirical evidence of a pattern of entrepreneurial beliefs and values related to entrepreneurial behaviour was found (McGrath &

MacMillan, 1992; McGrath et al., 1992b). Similarly, Leung et al. (2005) contend that it is not a single cultural characteristic alone in influencing individuals and suggest that it is crucial to include configurations of cultural characteristics in future research. These ideas are consistent with Schwartz's model of individual-level values.

Kirkman *et al.* (2006) cogently argued that prior to including cultural values in any scholarly investigation, the most important decision criterion for any researcher is whether or not a particular value has theoretical applicability to the research question at a particular level of analysis. Similarly, Hayton *et al.* (2002) suggest that an ideal measure of values should scrutinise aspects of values that are relevant to entrepreneurship. Although Schwartz proposes a rigorous individual value preferences theoretical framework but few studies have investigated entrepreneurs' value preferences using Schwartz's framework (Licht, 2010). The 'entrepreneurial values' or 'entrepreneurial spirit' is regarded as high on the dimensions of Achievement, Power, Self-direction and Stimulation, as well as low on Universalism, Benevolence and Conformity values (Adams et al., 2008; Licht, 2010; Noseleit, 2010). Fundamentally, entrepreneurial values fall under the higher order dimension of openness to change and self-enhancement. From factor analysis, Basu and Altinay (2002) extract four factors with the first factor related to self-direction and power.

#### **2.7.4 Cross-cultural and intra-national diversity**

There are cultural variations in terms of attitudes, beliefs, expectations and values which allow for comparing and contrasting similarities and differences in individuals' behaviour from different cultures or ethnic groups (Lonner & Adamopoulos, 1997). It is

theoretically important to understand within country cultural variations (Kirkman et al., 2006) as research findings in one culture or one ethnic group may not be generalisable to other cultures or ethnic groups (Baron & Bryne, 2003). Cross-cultural psychology focuses on culture as the key factor to shape and influence human's thought and behaviour. It assumes that one's culture is a major, if not the major, factor that causes individual differences in behaviour. In cross-cultural psychology, a hypothesis is tested by extending the range of variation of the independent variable, such as including other cultures or ethnic groups.

The behavioural approach in cross-cultural management research assumes that attitudes, beliefs, values and need hierarchies are dependent on culture. This means that attitudes, beliefs, values and need hierarchies are different in different societies, even different among different ethnicities within a given society (Negandhi, 1983). A major and growing area of international entrepreneurship research is cross-cultural comparison of entrepreneurship which investigates the potency differences in the perceptions and behaviours of entrepreneurs (Aldrich & Waldinger, 1990; Coviello et al., 2011; Jones et al., 2011). Researchers can examine the relationship of value priorities to attitudes and behaviour across societies and, in the process, differentiate universal processes from processes dependent on specific social and cultural circumstances.

In order to conduct quality cross-cultural management research, it is important to understand the contexts (Earley & Singh, 1995; Lonner & Adamopoulos, 1997; Low & MacMillan, 1988; Yeh, 1988). Contextual variables may add to, moderate and/or mediate the effect of culture (Leung et al., 2005) and the number of moderating studies of culture is increasing rapidly (Kirkman et al., 2006). In the context of entrepreneurship, theories

of motivation are culture bound, which means different cultures emphasise different motivational needs (Hayton et al., 2002). The question of whether entrepreneurs are the same across cultures is worth asking (McGrath et al., 1992b; Shane, 1992; Thomas & Mueller, 2000). Shapero and Sokol (1982) assert that there are varying levels of beliefs about the desirability and feasibility of entrepreneurship in different cultures. In other words, the beliefs in a culture promote entrepreneurial activity (although an increasing number of scholars believe that entrepreneurship can be taught), even sub-cultures can influence entrepreneurs' decision-making and networking (George & Zahra, 2002). If "some cultures produce many more entrepreneurs than others" (Busenitz & Lau, 1996, p. 25), then researchers are interested in understanding the fundamental causes for such a variation (Tan, 2002).

The increasing number of female entrepreneurs is another productive avenue for research. Most studies report that females generally have lower entrepreneurial intention than males (Begley, Tan, & Schoch, 2005; Blanchflower, 2004; Langowitz & Minniti, 2007; Minniti & Nardone, 2007; Wang & Wong, 2004; Wilson, Kickul, & Marlino, 2007; Xavier et al., 2013). Several explanations are put forward for this phenomenon, such as perceptual factors (Minniti & Nardone, 2007), a relative lack of willingness among women, the existence of gender-specific obstacles (Verheul et al., 2011 cited in Caliendo & Kritikos, 2012) and values (Schwartz, 2015; Tung & Verbeke, 2010).

In conclusion, there is a need for more multi-group comparative research (Aldrich & Waldinger, 1990). Indeed, it is highly desirable to establish what is universal and thus, generalisable in view of the incredible cultural diversity of human behaviour (Lonner & Adamopoulos, 1997). A common conceptual framework can be used to identify both the

similarities and differences among entrepreneurs from different cultural background (Hayton et al., 2002) which facilitates understanding of how and why differences exist with respect to culture (Earley & Singh, 1995).

## **2.8 Psychology of entrepreneurs**

### **2.8.1 Psychology**

The literature suggests that psychology is needed in order to understand entrepreneurs' behaviour (Paulin et al., 1982; Pennings, 1982; Schumpeter, 1959). In other words, psychological factors are called upon to explain the action of entrepreneurs (Andersson, 2000). Psychology has been described as the second largest discipline that contributes to entrepreneurship research (Baum et al., 2007). Psychology concentrates upon the content and process by which this world is represented in the mind, which is the process intervening between the external world and observable behaviour (Herron et al., 1991; Shaver & Scott, 1991) and choice (Shaver & Scott, 1991).

### **2.8.2 Characteristics of entrepreneurs and prediction of behaviour**

Characteristics of entrepreneur is one of the core issues in entrepreneurship research (Churchhill & Lewis, 1986; Hisrich et al., 2007; Low & MacMillan, 1988; Wortman, 1986, 1987). It is also a major area of interest within international entrepreneurship (McDougall & Oviatt, 2000). The study of the characteristics of the entrepreneur is an old paradigm (labelled as the first paradigm to predict behaviour in this study) and is well documented in the existing literature. This type of research can be categorised into Type A of the international entrepreneurship domain ontology and thematic analysis (Jones et



al., 2011). The literature indicate that characteristics are also known as traits or personality (Carland, Hoy, Boulton, & Carland, 1984; Gartner, 1990) and content models (e.g. Engle et al., 2010).

The basic assumption used in characteristics research is that behaviour is the consequences of internal disposition (Gartner, 1989). Many different entrepreneurial characteristics have been identified. Even though it is hard to find common psychological factors among entrepreneurs (Davidsson, 1992 cited in Andersson, 2000), some typical or widely regarded hallmark characteristics of entrepreneurs include a higher tolerance for ambiguity (Begley & Boyd, 1987; Wortman, 1986); high in need for achievement (Brockhaus, 1982; Brockhaus & Horwitz, 1986); autonomy (Engle et al., 2010; Low & MacMillan, 1988; Mueller & Thomas, 2000; Sexton & Bowman, 1985; Shane, 1992; Stevenson & Jarillo, 1990; Wiklund, Davidsson, & Delmar, 2003); locus of control (Brockhaus, 1982; Brockhaus & Horwitz, 1986); risk-taking propensity (Brockhaus, 1982; Brockhaus & Horwitz, 1986) and power (Hagen, 1960; Schumpeter, 1959). Likewise, individual characteristics also influence exporting behaviour (Reid, 1981).

The simplified illustration of the relationship between characteristics and entrepreneurship is as below:

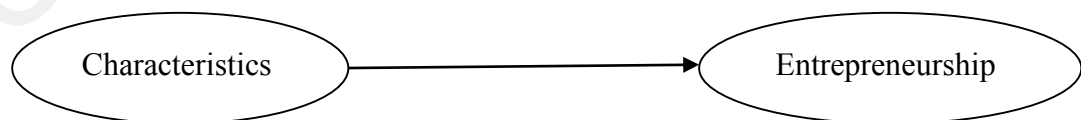


Figure 2.5 Relationship between characteristics and entrepreneurship

However, intellectual disagreement exists whether characteristics is a useful construct in entrepreneurship research (Hisrich et al., 2007). Past attempts to label entrepreneurs using psychological characteristics have been questioned (Low & MacMillan, 1988) and it should be discontinued until adequate theoretical frameworks and significantly more sophisticated research methodology has been developed (Wortman, 1987). Other researchers criticise characteristics as poor predictors of entrepreneurial activities, that is, characteristic is a less predictive approach (e.g. Bond et al., 2004; Krueger, Reilly, & Carsrud, 2000; Licht, 2010) and may even hinder scientific advancement (Ajzen & Fishbein, 1980). Other researchers note a shift away from the characteristics (e.g. Dana, 1997). Another perspective concludes that both characteristic and behavioural approaches to research are necessary in order to understand the concept of entrepreneurship (Carland et al., 1988).

Characteristics research are usually studied in isolation by different scholars rather than in combination, although the combination of personality traits rather than any single trait is probably better in explaining entrepreneurial activities (Borland cited in Brockhaus & Horwitz, 1986). In spite of decades of studies on psychological profiles and related studies, these have not culminated into a model of entrepreneurship (Holt, 1997). Additionally, the model already developed to investigate the relationship between characteristic and behaviour overlooked the effect of mediating variables.

Despite the long history of research and criticisms as discussed in the preceding paragraphs, there is a renewed interest in entrepreneurial characteristics research (Korunka, Frank, Lueger, & Mugler, 2003; Rauch & Frese, 2007). Hisrich *et al.* (2007) call for researchers to develop theory and undertake empirical research focusing on the

personality characteristics of entrepreneurs. This renewed interest in characteristics can be in the form of values because Maio (2010) contends that characteristics are a different label for values. Finally, Rauch and Frese (2007) call for better personality theory and inclusion of mediation and interaction (i.e. moderation) in the personality and entrepreneurship relationship.

### **2.8.3 Process of entrepreneurship**

Besides characteristics, another approach to study psychology is the process approach (Baron & Bryne, 2003; Engle et al., 2010). The psychological processes of entrepreneurial activity can help researchers to re-conceptualise the nature of entrepreneurship (Gartner, Shaver, Gatewood, & Katz, 1994) and it is a better methodology in international entrepreneurship research (Coviello & Jones, 2004).

Entrepreneurial activity is best viewed as a process (Bosma & Levie, 2010; Linan & Chen, 2009; Shaver & Scott, 1991; Stevenson & Jarillo, 1990). Similarly, international entrepreneurship is also best illustrated by process (Dimitratos & Plakoyiannaki, 2003; Keupp & Gassmann, 2009). As such, several authors have argued for increased emphasis on process approach (Aldrich & Waldinger, 1990; Low & MacMillan, 1988; Wortman, 1986, 1987) to explain behaviour, predict performance and provide normative advice (Amit et al., 1993). Process models derived from the social cognitive theory have been applied in individual level entrepreneurship research (Davidsson, 1995; Engle et al., 2010; Shaver & Scott, 1991).

An important aspect of the entrepreneurial process is entrepreneurial motivation and the Theory of Planned Behaviour is basically concerning motivation (Carsrud & Brännback, 2011). The Theory of Planned Behaviour defines the behaviour of interest in terms of target, action, context and time.

#### **2.8.4 The Theory of Planned Behaviour**

In Section 2.3.1 it was mentioned that entrepreneurship researchers frequently borrow theories from other disciplines and the Theory of Planned Behaviour (TPB) is one theory that has received considerable attention in entrepreneurship literature.

Krueger *et al.* (1993; 2000) observe that entrepreneurship research has typically been based on less robust and less predictive approaches which resulted in small effects of exogenous factors on entrepreneurial activity. The small effect is due to the indirect effect of exogenous factors on intentions and behaviours. In other words, something is mediating the impact of exogenous factors upon intentions, for example, attitude (Krueger & Carsrud, 1993; Krueger *et al.*, 2000). Exogenous factors are typically either person variables (such as traits and demographic) or situation variables (i.e. environment factors). Exogenous factors may include religious and political oppression (Harwood, 1982).

The Theory of Planned Behaviour is a newer and more promising approach than characteristics to analyse entrepreneurial intentions (Korunka *et al.*, 2003) and is the second paradigm to predict behaviour in this study. The Theory of Planned Behaviour is also referred to as intentions models and process models (Krueger & Carsrud, 1993; Krueger *et al.*, 2000). Intentions-based process models are found to be versatile and

robust, which should stimulate more process-based research (Krueger & Carsrud, 1993). Krueger *et al.* (2000) cogently argue for the application of the Theory of Planned Behaviour in entrepreneurship research to open the cognitive ‘black box’, that is, understand the cognitive processes because entrepreneurship is intentional and intentions are an unbiased predictor of action.

Ajzen (2006) postulates that behaviour can be predicted through (i) the influence of three motivational factors (i.e. Behavioural Beliefs which form Attitude, Normative Beliefs which form Subjective Norm and Control Beliefs which form Perceived Behavioural Control) on intention and eventually to behaviour, and (ii) the direct link between the Perceived Behavioural Control and behaviour (termed actual control) which bypass intention. Consequently, he believes that both intentions and perceptions of behavioural control can explain a sizeable variance in actual behaviour (Figure 2.6).

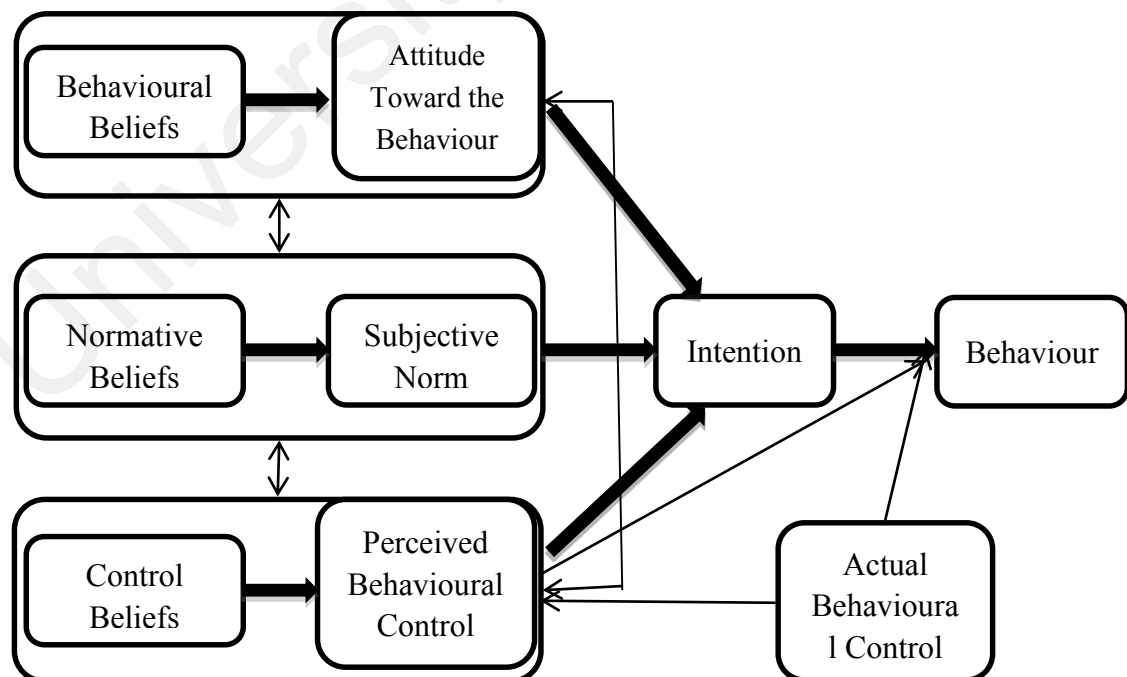


Figure 2.6 The Theory of Planned Behaviour (Ajzen, 2006)

Beliefs have been widely used as individual differences variables to explain and predict behaviour (Leung & Bond, 2004). The underlying assumption of the Theory of Planned Behaviour as depicted in Figure 2.6 is that behaviour is an outcome of relevant beliefs, that is, beliefs prompt behaviour.

Attitude is the degree to which an individual holds a favourable or unfavourable evaluation toward a behaviour (for instance, entrepreneur's attitude toward export to new markets in the future). Attitude can be measured directly or indirectly. For indirect measure, the items are formulated to measure the Behavioural Belief Strength and the Outcome Evaluation. The aggregate of all Behavioural Belief Strengths and Outcome Evaluations, namely, Behavioural Beliefs, produces Attitude. Subjective Norm measures the perceived social pressure to carry out the behaviour mentioned in Attitude. Similarly, Subjective Norm can be measured directly or indirectly. The items for indirect measure are the Normative Belief Strength and the Motivation to Comply. The aggregate of all Normative Belief Strengths and the Motivations, namely Normative Beliefs, generates Subjective Norm. Perceived Behavioural Control is defined as the perception of the ease or difficulty to perform the behaviour mentioned in Attitude. The indirect measure of Perceived Behavioural Control, namely Control Beliefs, is the aggregate of all Control Belief Strengths and Control Belief Powers.

Although entrepreneurship is generally associated with high individualism (see Section 2.7.1), existing body of literature suggests that entrepreneurs are exposed to subjective norm (Andersson, 2000; Bruno & Tyebjee, 1982; Hechavarria & Reynolds, 2009; Hofstede, 2001; Schumpeter, 1959) and are dependent on referents for their success (Zachary & Mishra, 2011). In addition, the socio-logical perspective on entrepreneurship

suggests that entrepreneurs' cognitive processes and behaviours are rooted in a particular social context (Zahra, Korri, & Yu, 2005). In Global Entrepreneurship Monitor's (Bosma & Levie, 2010, p. 33) Entrepreneurial Framework Conditions number Nine, cultural and social norms is defined as "The extent to which existing social and cultural norms encourage or do not discourage, individual actions that may lead to new ways of conducting business or economic activities ...".

Extant empirical evidence seems to differ on the importance of Subjective Norm for general and entrepreneurial behaviour. For example, the meta-analytic review by Armitage and Conner (2001) conclude that Subjective Norm is generally a weak antecedent of intentions. Similarly, the findings by Krueger *et al.* (2000) and Linan and Chen (2009) appear to suggest that Subjective Norm is not significant in influencing entrepreneurial intention. Sexton and Bowman (1985) found that entrepreneurs do not conform to the norms of others. One plausibility for the insignificance of Subjective Norm is that Subjective Norm may better explain intention in collectivist societies compared with individualistic societies (Ajzen, 1991). On the other hand, Armitage and Conner (2001) argue that this non-significance is partly due to a combination of poor measurement and suggest multiple item scales to measure normative construct.

The Theory of Reasoned Action (TRA) is postulated to explain virtually all human behaviour (Ajzen & Fishbein, 1980). The Theory of Planned Behaviour (Ajzen, 1991) is the extended model of TRA by adding a new construct called Perceived Behavioural Control (PBC). The Perceived Behavioural Control means the subjective degree of an individual's believed control or perceived control over the performance of a behaviour (Ajzen, 2002). In other words, cognitive self-regulation as an important aspect of human

behaviour (Ajzen, 1991). Schumpeter (1959) labels this type of perception as psyche of the businessman. According to Schumpeter, there are both objective and subjective difficulties in doing something new although most of the time, innovation itself may not present any difficulty. The psyche or old habits need to be overcome by effort and mental freedom for the seed of innovation to grow. In other words, we can change the perceived behavioural control in order to see the possibility of entrepreneurial intention. This notion is similar to the contention that entrepreneurship is a process by which individuals pursue opportunities without regard to the resources they currently control (Stevenson & Jarillo, 1990).

Although all three proximal antecedents of intention are important, their relative importance depends on both the behaviour and the population under investigation (Ajzen, 1991; Engle et al., 2010; Fishbein & Yzer, 2003). For example, certain behaviour may be determined by Attitude whereas other behaviour may be determined by Subjective Norm or Perceived Behavioural Control. Likewise, certain behaviour may be driven by Attitude in one population or culture and the same behaviour may be driven by Subjective Norm or Perceived Behavioural Control in another population or culture. Consequently, scholars can use the Theory of Planned Behaviour to (a) determine whether intention for a particular behaviour is influenced primarily by Attitude, Subjective Norm or Perceived Behavioural Control in a particular population and (b) identify the specific beliefs that distinguish between those who do or do not intend to perform the behaviour and address these discriminating beliefs which in turn influence Attitude, Subjective Norm or Perceived Behavioural Control (Fishbein & Yzer, 2003).



In summary, the Theory of Planned Behaviour posits that an individual's intention to perform the behaviour of interest is the function of favourable Attitude and Subjective Norm and greater Perceived Behavioural Control (Ajzen, 1991). Nevertheless, the relative importance of Attitude, Subjective Norm and Perceived Behavioural Control, or their associated beliefs, to predict intention is expected to differ across behaviours, situations, populations or cultures. Moreover, different cultures have different salient beliefs, which produce different relative strength for each motivational factor to intention (Ajzen, 1991).

#### **2.8.5 Suitability of the Theory of Planned Behaviour to study entrepreneurship**

The current emphasis in entrepreneurship research is on behavioural (Davidsson et al., 2001; Hayton et al., 2002; Hechavarria & Reynolds, 2009) and cognitive issues (Davidsson et al., 2001; Gasse, 1986; Hisrich et al., 2007) where cognition refers to attitudes, beliefs and values (Gasse, 1986). The Theory of Planned Behaviour is useful in the field of entrepreneurship in many aspects, for instance, it is parsimonious, theory-driven, robust for explanation and prediction, practical, as well as able to develop testable hypotheses (Krueger & Carsrud, 1993; Krueger et al., 2000). The Theory of Planned Behaviour is a psychological approach consistent with proposition of persons, process and choice that holds promise for future research (Shaver & Scott, 1991). More importantly, it is a validated theory (Locke, 1991) that continues to generate the most research (Petty, Wegener and Fabrigar, 1997 cited in Wiklund et al., 2003), hence, it is a very suitable framework to investigate entrepreneurial behaviour.

The Theory of Planned Behaviour is for behaviour under volitional control (i.e. the person can decide at will to perform or not to perform the behaviour. Volitional control is also known as choice) and cognitive self-regulation (Ajzen, 1991). Entrepreneurial activities are intentional and a planned behaviour (Krueger & Carsrud, 1993; Krueger et al., 2000; Pennings, 1982) and so are best predicted by intentions toward the behaviour (Fishbein & Ajzen, 1975). Intentions models offer a better understanding of how exogenous factors influence entrepreneurial activity (Krueger et al., 2000). A number of studies have successfully applied the Theory of Planned Behaviour to predict entrepreneurial intention (Engle et al., 2010; Krueger et al., 2000; Linan & Chen, 2009) and contributed to our understanding of the cognitive processes leading to entrepreneurial intention and the generalisability of the Theory of Planned Behaviour across nations.

The entrepreneurial event formation model by Shapero and Sokol (1982) has very similar idea with the Theory of Planned Behaviour, where perceptions of desirability correspond to Attitude and Subjective Norm whereas feasibility corresponds to Perceived Behavioural Control. Other similarities include the impact of environmental factors on mediating constructs and interactions among mediating constructs. Empirically, both models are proven to be equivalent (Krueger et al., 2000).

International entrepreneurship can also be framed as a cognitive process and is behavioural (Dimitratos & Jones, 2005). In terms of cognition, export is motivated by the decision-maker's attitudes, that is, perception and expectations of the results (Reid, 1981). Research suggests that entrepreneurial cognitions can explain important phenomena in international entrepreneurship (Mitchell et al., 2002). Majority of scholarly works on international entrepreneurship (about 47%) examine how antecedents, particularly socio-

cognitive factors at the individual level of analysis (at 26%), influence consequences (Keupp & Gassmann, 2009), that is, deterministic study (Bygrave & Hofer, 1991).

The application of the Theory of Planned Behaviour can be extended to predict other strategic decisions (Krueger & Carsrud, 1993; Krueger et al., 2000), just as Shapero and Sokol's (1982) model can be applied in studies on international entrepreneurial intention (Dimitratos & Jones, 2005). Intention to internationalise or to export is frequently used as a quantitative dependent variable (Keupp & Gassmann, 2009). All these evidence provide strong theoretical underpinnings for applying the Theory of Planned Behaviour in the domain of international entrepreneurship.

## **2.9 Research gaps and proposed integrative theoretical framework**

This study relates to an overall framework with systematic analysis as suggested by Wortman (1986), firstly in each sub-framework (i.e. the Values Theory and the Theory of Planned Behaviour applied in entrepreneurship studies as discussed in Sections 2.7.3 and 2.8.4 respectively), followed by a theoretical framework which would demonstrate the inter-connectedness of the parts of the sub-framework which will be discussed in Section 2.9.1 and of the sub-frameworks to the comprehensive framework (i.e. the basis of integration) in Section 2.9.3.

### **2.9.1 Research gaps**

There are many research gaps in the field of individual entrepreneurship, such as development of theories, frameworks, definitions and models (Wortman, 1986). From the extensive literature review in the preceding sections, this study identified several gaps that merit further scholarly investigation which may increase the scientific knowledge base of individual entrepreneurship. Furthermore, these gaps can be categorised into macro and micro levels.

For the emerging field of international entrepreneurship, the challenges at the macro level are summarised into robust theoretical frameworks, clear methodological directions, more holistic and multi-disciplinary theoretical approaches to research design and interpretation of results (Dimitratos & Jones, 2005). In a recent review, about half of the studies failed to specify any theoretical framework whereas for those with theoretical framework, only a few stated the resulting implications for the theory used (Keupp & Gassmann, 2009). Additional challenges include integration of models for more fruitful research (Korunka et al., 2003; Zahra & Dess, 2001) and empirical evidence (Bygrave, 1989; Zachary & Mishra, 2011). Another issue that deserves empirical enquiry is the role of cultural values in entrepreneurship outside the Western context (Hisrich et al., 2007).

These research gaps will be addressed as follows. For robust theoretical framework, this study will utilise models with strong theoretical thrusts and validated, thereafter feedback to the theory as discussed in Section 2.3.1. For methodology, a scientific and rigorous research design will be discussed in detail in Chapter Three Research Methodology and a sophisticated statistical technique of Structural Equation Modelling is used to generate empirical evidence. Multi-disciplinary approach is addressed by

involving various disciplines such as entrepreneurship, SMEs, international entrepreneurship, sociology and psychology. The Values Theory and the Theory of Planned Behaviour will be integrated in the context of international entrepreneurship based on theoretical consideration as both models are compatible in many aspects (Looi, 2013).

From their review of extant body of literature, Keupp and Gassmann (2009) found that international entrepreneurship studies typically focused on internationalisation of small firms. Although international entrepreneurship is at the intersection of international business and entrepreneurship (McDougall & Oviatt, 2000), many international entrepreneurship studies did not use any international business nor entrepreneurship theoretical framework, whereas others mostly used international business frameworks alone (Keupp & Gassmann, 2009). This continuing lack of the essence of international entrepreneurship threatens to impede progress in both theoretical and empirical studies in international entrepreneurship. This research gap is addressed by grounding this study on both international business and entrepreneurship in an integrative framework to be proposed.

At the micro level of entrepreneurship, there are many calls for future research to develop a comprehensive theoretical model of the causal relationship between culture and entrepreneurial behaviour (George & Zahra, 2002; Hayton et al., 2002; McGrath et al., 1992a; West, 1997). There are also calls to develop models of entrepreneurship based on both process and content that relate to a comprehensive and understandable framework (Wortman, 1986).

In the cultural value-behaviour relationship, also known as culture as antecedent of behaviour (the third paradigm to predict behaviour), the body of literature revealed the influence of culture on behaviour is indirect. This means that cultural values are distal constructs and there are other proximal constructs, or mediators, to behaviour (Kirkman et al., 2006; Lonner & Adamopoulos, 1997). In this respect, cognition has been recognised as a mediator between stimuli and behaviour (Kirkman et al., 2006; Triandis, 1972). An important step forward is to develop and test a more comprehensive theoretical model of the relationship between culture and entrepreneurial behaviour (Hayton et al., 2002; Leung et al., 2005), specifically, the impact of culture on cognition or the Theory of Planned Behaviour (Engle et al., 2010; Linan & Chen, 2009). In this manner, the academic community can stop relying on culture as a 'black box' and switch to a more precise specification of theoretical relationships (Earley & Singh, 1995) with the addition of the Theory of Planned Behaviour. To the best of this researcher's knowledge, thus far, there has been very little research that empirically examine this type of comprehensive models (Crookes & Thomas, 1998), including in the field of international entrepreneurship.

Values are postulated to motivate behaviour (Leung & Bond, 2004; Schwartz, 2007). However, external variables or background factors (such as personality traits, values, demographic and other variables) do not directly affect (i.e. distal variables) intention or behaviour (Krueger et al., 2000; M. W. Morris, 2014) but will influence the antecedents of intention, that is, attitude, subjective norm and perceived behavioural control (Ajzen, 2006) and the relative weightage of these three constructs on intention (Linan & Chen, 2009).

Prior studies and theories suggest that characteristics correlate with values (Brockhaus, 1982; Brockhaus & Horwitz, 1986; Gasse, 1982; Roccas, Sagiv, Schwartz, & Knafo, 2002) as both characteristics and values are content model (Engle et al., 2010; Lonner & Adamopoulos, 1997). Similarly, characteristic variables are considered distal or weak determinants of specific behaviour (the first paradigm), whereas attitudes are considered proximal or important determinants of behaviour (Wiklund et al., 2003).

Therefore, the relationship between values and behaviour can be illustrated as below:

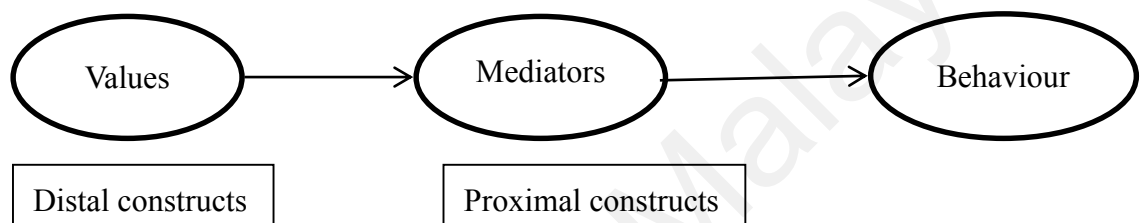


Figure 2.7 Values as distal constructs to behaviour

Investigation of the effects of these background factors (the new paradigm which combine paradigms one, two and three) can improve behavioural predictions (Ajzen & Fishbein, 1980; Leung & Bond, 2004) and provide valuable information about possible precursors of Behavioural, Normative and Control Beliefs (Ajzen, 2006). At the same time, behavioural theories (note: the Values Theory and the Theory of Planned Behaviour are used to predict behaviour) can be hybridised to construct a new, valid and reliable theoretical framework (Jackson, Quaddus, Islam, & Stanton, 2006) with the Values Theory as a testable antecedent.

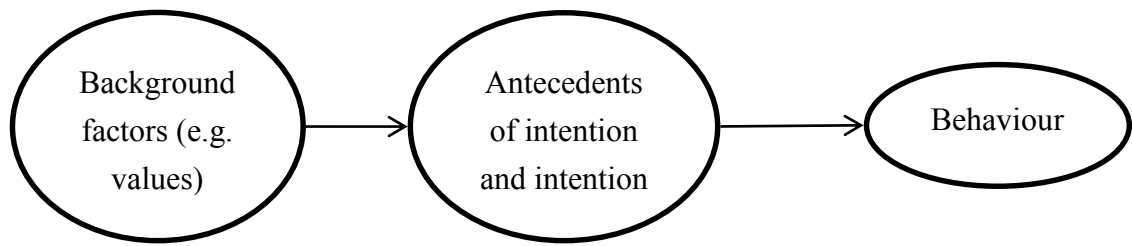


Figure 2.8 Background factors influence the antecedents of intention

Comparing the Figure 2.7 with Figure 2.8, it is obvious that they are fundamentally similar in concept. Therefore, the mediators in Figure 2.7 can be replaced with antecedents of intention and intention from Figure 2.8 because constructs in the Theory of Planned Behaviour are cognitions that intervene or mediate (Ajzen, 1991). As a result, whether it is adding mediators to the value-behaviour relationship or adding background factors to the Theory of Planned Behaviour, the resulting model is the same. To date, to the best of this researcher's knowledge, no research has empirically tested the causal relationship from background factors to antecedents of intention and subsequently intention, possibly due to the complexity of external variables or environmental factors and the inability to identify a suitable external framework for this purpose.

The entrepreneurial event formation model (Shapero & Sokol, 1982) is not only conceptually similar to the Theory of Planned Behaviour in terms of mediating variables, but also recognises the antecedent of cultural and social environments, that is, values system (see Figure 2.4), thus adding credence to scholarly effort to develop testable hypotheses for the integration of the Values Theory and the Theory of Planned Behaviour.

Finally, another fruitful area for future scholarly inquiry is to examine the intra-national diversity or contingency impact of culture on entrepreneurship (George & Zahra, 2002; Kirkman et al., 2006). In other words, future research to investigate values, beliefs,



motivations and cognitions of different groups of entrepreneurs (Hayton et al., 2002). In this case, culture becomes the overarching explanatory frame for ethnic differences (Lonner & Adamopoulos, 1997). Other contextual factors such as gender and current exporting status can also be investigated for theory building (Welter, 2011; Zahra, 2007).

### 2.9.2 Other similiar attempts

Entrepreneurship is influenced by environmental forces and context. It is also cross-disciplinary and processual with current emphasis on social sciences, that is, behavioural and cognition. The literature revealed that some frameworks have been proposed since 1980s on the relationship between values, cognition and behaviour which endeavour to include some or all of the elements mentioned earlier.

Bird (1988) proposes a comprehensive model from environment and personalities to intention (Figure 2.9) but the model has yet to be validated empirically (Shook, Priem, & McGee, 2003).

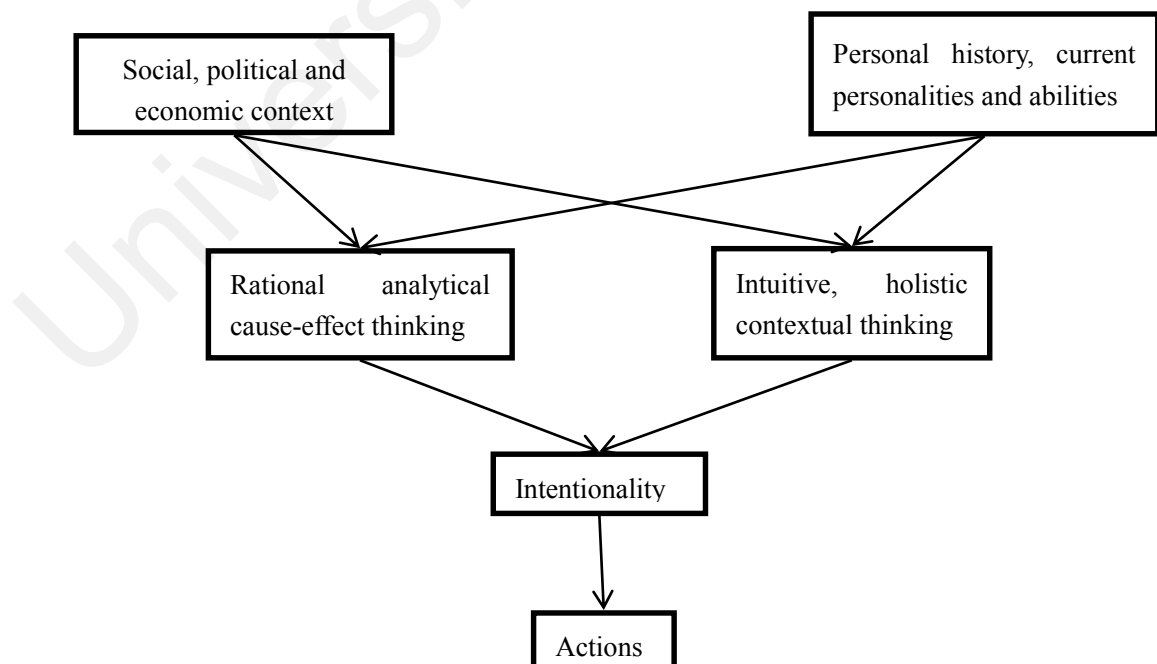


Figure 2.9 The contexts of intentionality (Bird, 1988)

Bygrave (1989) uses personal, sociological, organisational and environment to derive a conceptual model of the entrepreneurial process (Figure 2.10). The strength of this model lies in its comprehensiveness. The disadvantages are lack of cognition component and it is conceptual.

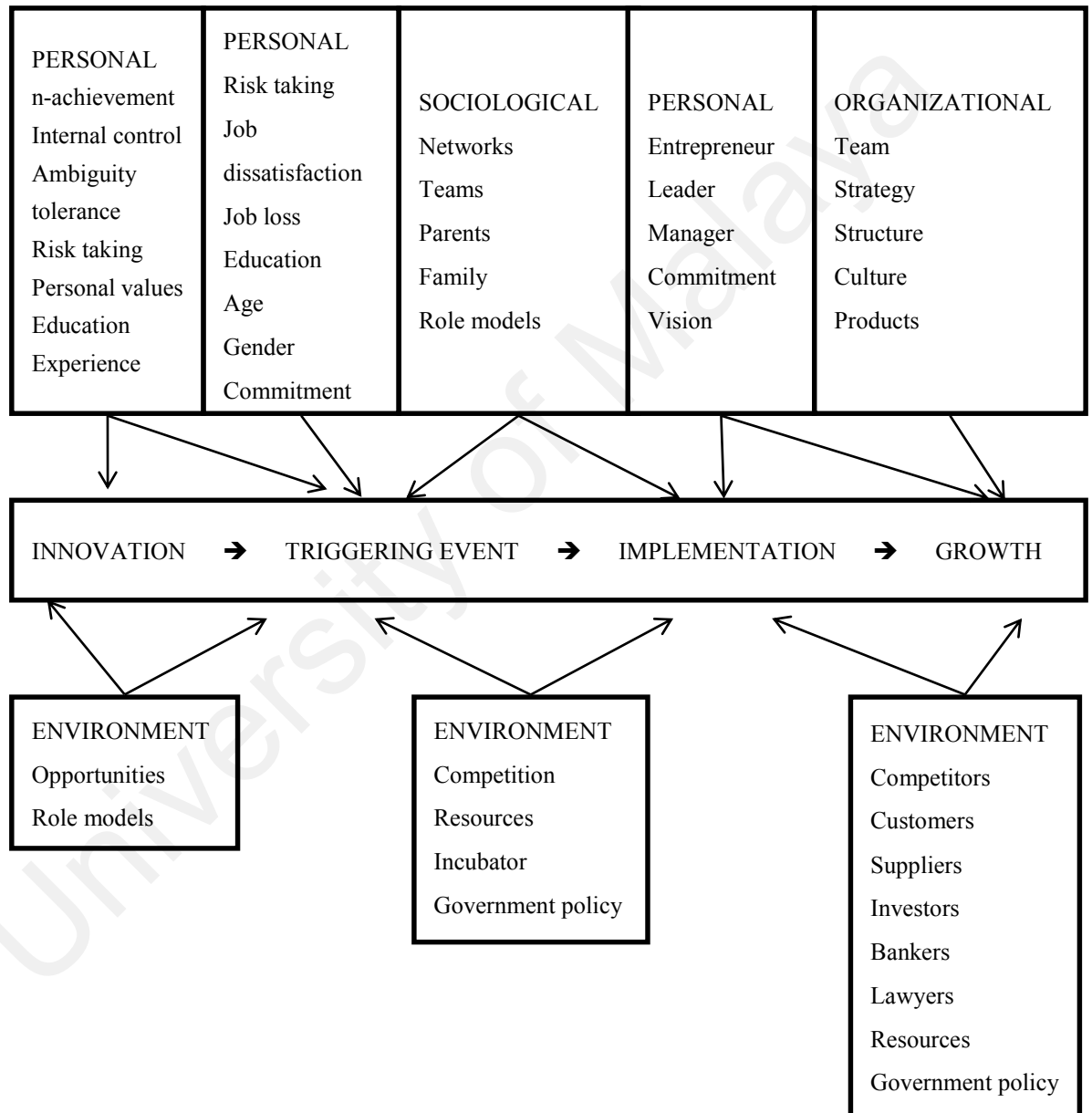


Figure 2.10 A model of the entrepreneurial process (Bygrave, 1989)

The eco-cultural framework by Berry *et al.* (1992 cited in Lonner & Adamopoulos, 1997) includes background variables, process variables and psychological outcomes. Its weaknesses are no cognition component and it is conceptual.

Krueger and Carsrud's (1993) basic intentions-based process model (Figure 2.11) offers a testable, theory-driven model of how exogenous factors (situational or personal) affect attitudes, intentions and behaviour. The model is derived from the Theory of Planned Behaviour but there is no empirical testing.

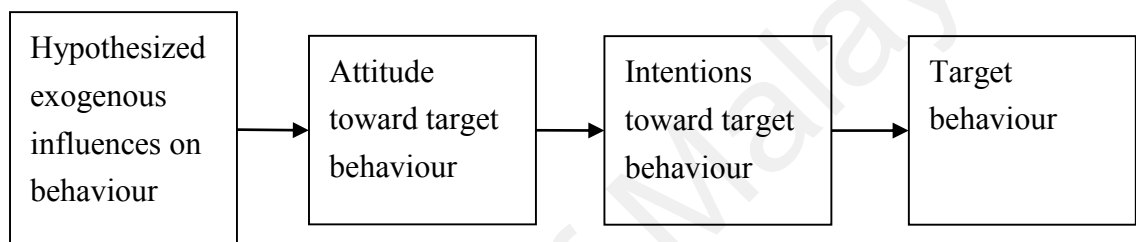


Figure 2.11 The basic intentions-based process model (Krueger & Carsrud, 1993)

Lee's (2000) cross-cultural consumer behaviour model (Figure 2.12) adopts Triandis' model of subjective culture and social behaviour relations mediated by psychological processes in the context of consumer behaviour. The model was empirically tested but its weakness lies in operationalising subjective culture as individualism and collectivism only although other dimensions exist.

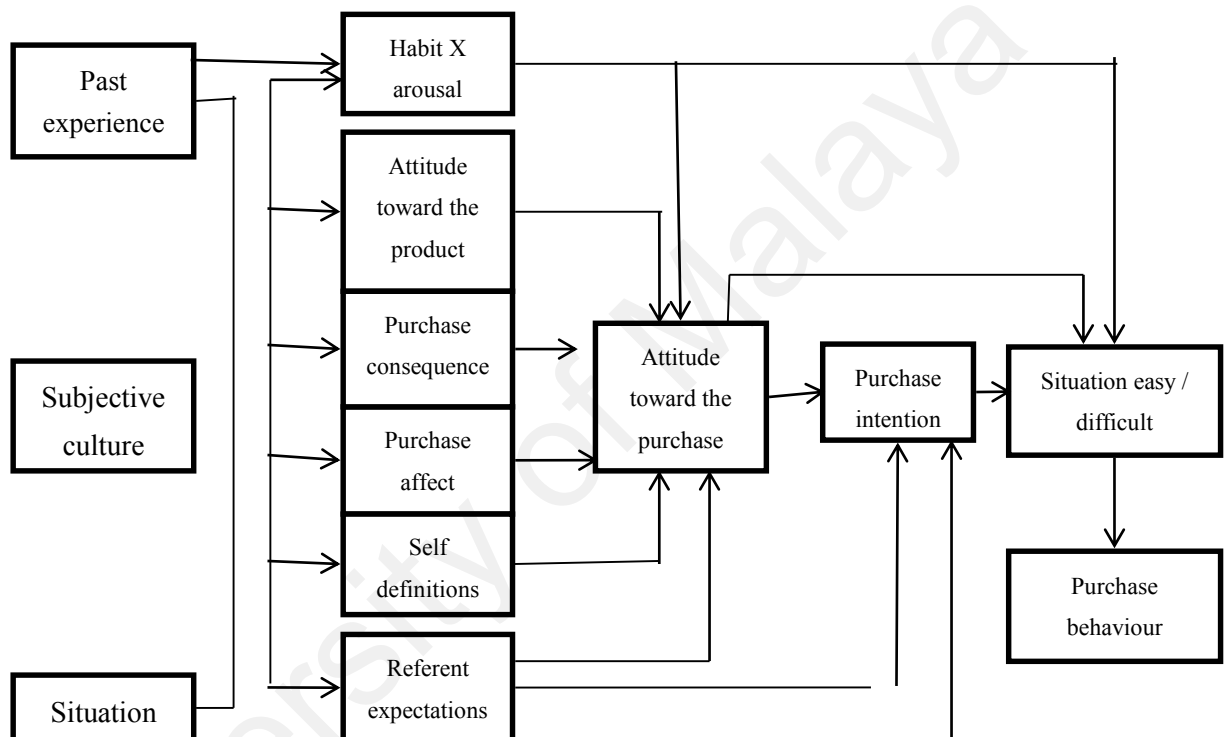


Figure 2.12 Proposed cross-cultural consumer behaviour model (Lee, 2000)

The cross-cultural cognitive model of venture creation (Figure 2.13) proposed by Busenitz and Lau (1996) is comprehensive as it adopts the information processing model (Fishbein & Ajzen, 1975). However, the model is conceptual and does not identify why and how certain cultural values affect entrepreneurial cognition.

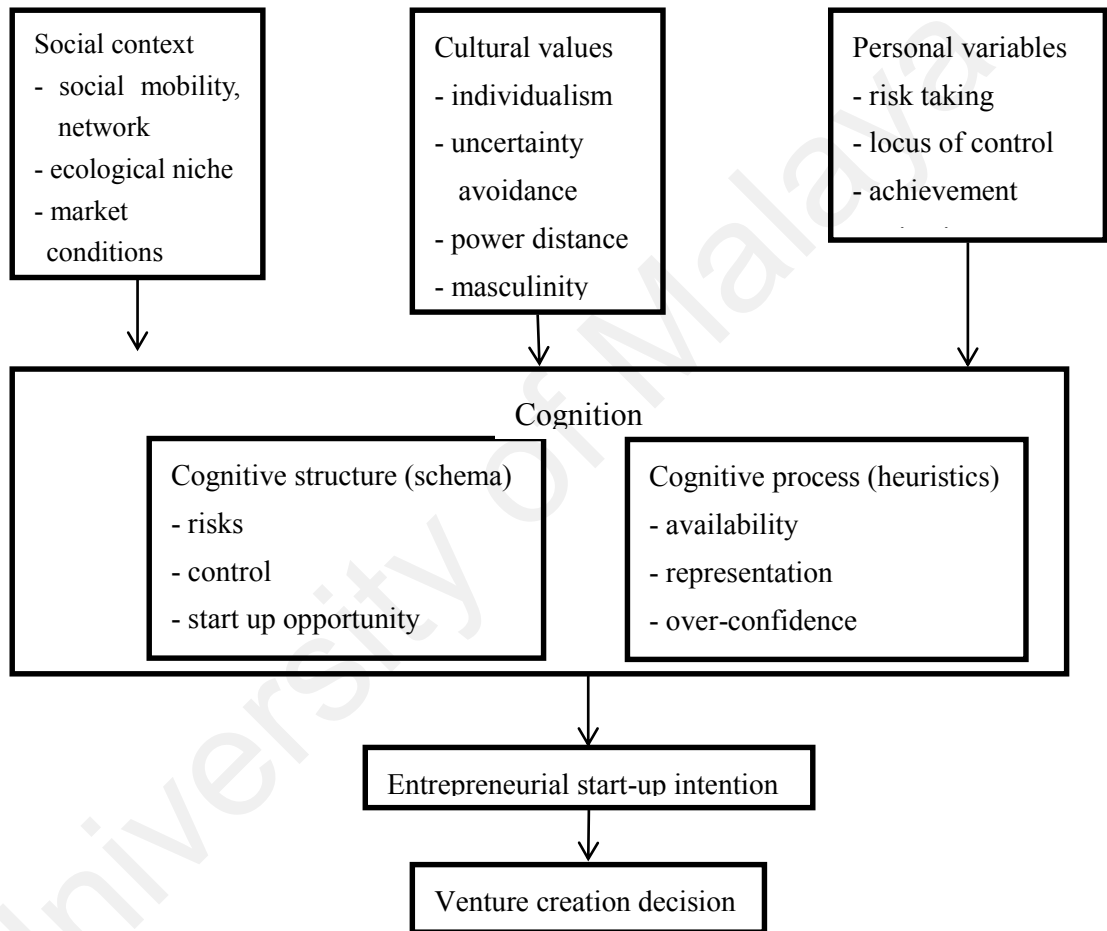


Figure 2.13 A cross-cultural cognitive model of venture creation (Busenitz & Lau, 1996)

Fishbein and Yzer (2003) propose an integrative model of behavioural prediction (Figure 2.14) based on the Theory of Reasoned Action (TRA). This model incorporates distal variables such as demographic, personality, attitudinal, other individual difference variables and cultural as underlying belief structure. Unfortunately, they did not test the relationship from distal variables to beliefs.

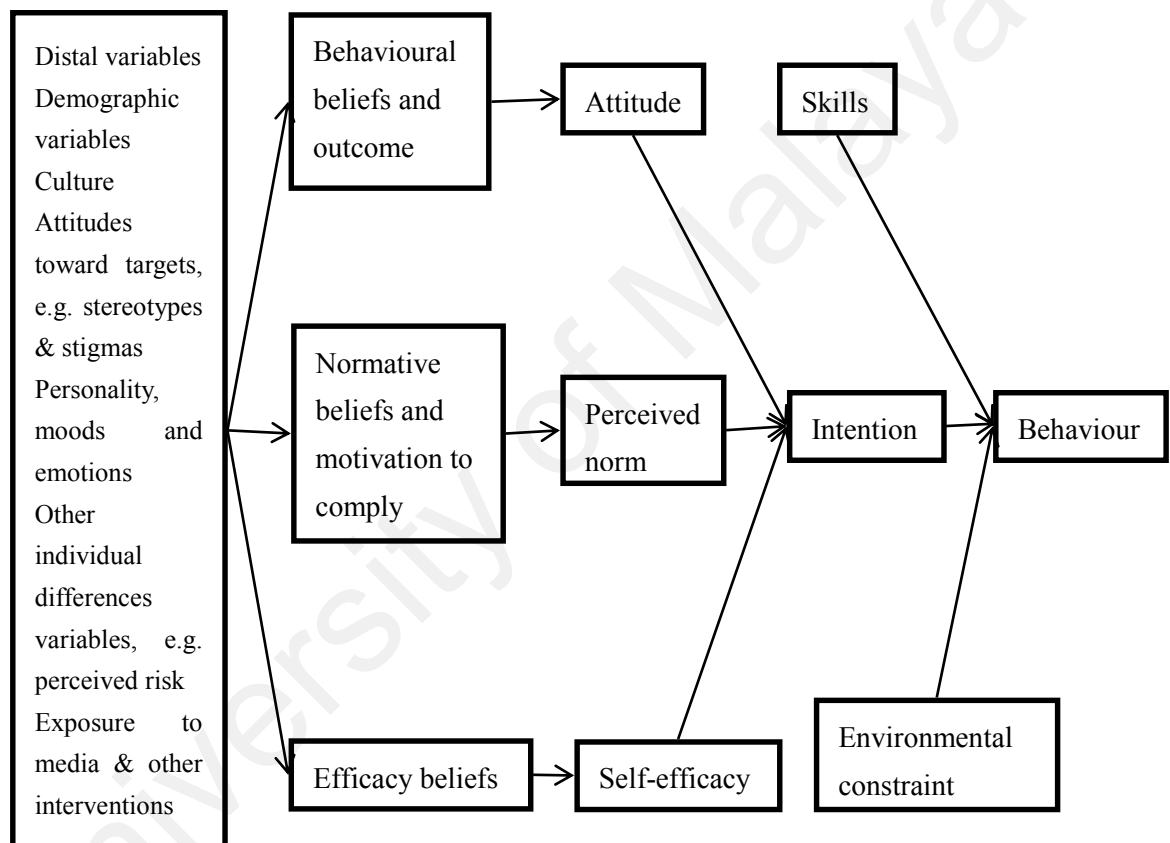


Figure 2.14 An integrative model of behavioural prediction (Fishbein & Yzer, 2003)

Dimitratos and Plakoyiannaki (2003) conceptualise international entrepreneurial culture as consisting of six dimensions (Figure 2.15). Interestingly, this conceptual model can be re-configured into a process model similar to the integrative model proposed in this study.



Figure 2.15 The dimensions of an international entrepreneurial culture (Dimitratos & Plakoyiannaki, 2003)

Karahanna *et al.* (2005) propose a theoretical model of culture's influence on behaviour (Figure 2.16). The strengths of this model lie in adopting TRA (Ajzen & Fishbein, 1980) and model of subjective culture (Triandis, 1972). On the other hand, this model can be refined to be more parsimonious by combining cognitive beliefs with attitude and social norms as well as practices with behaviour. Furthermore, it is propose that the effect of values on intention is mediated by beliefs and in turn, this whole relationship is moderated by factors ranging from regional to group.

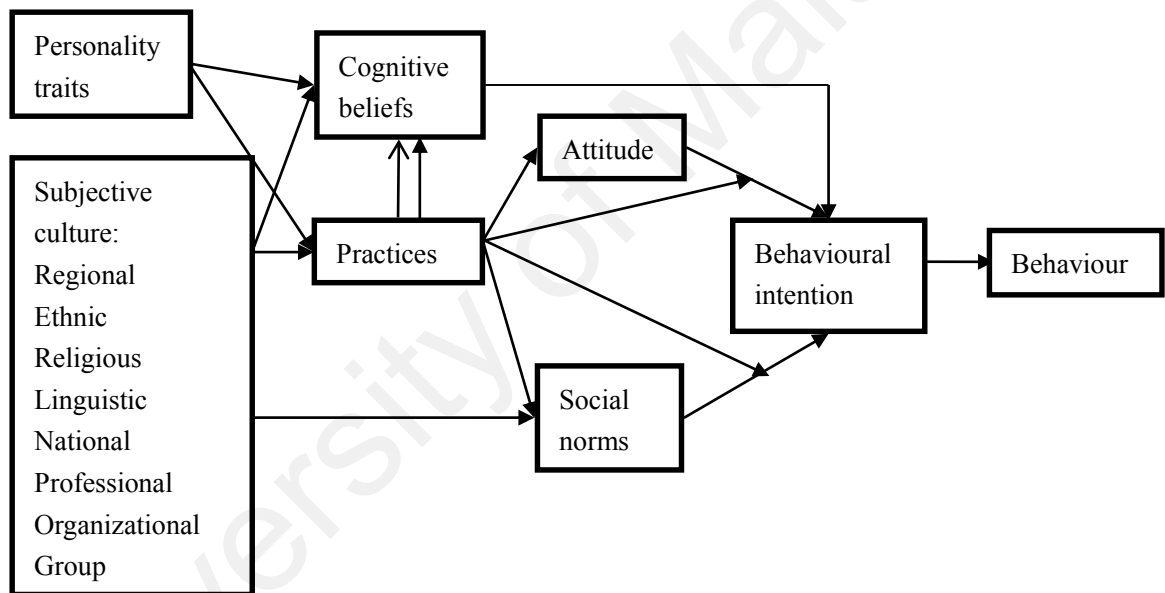


Figure 2.16 Theoretical model (Karahanna et al., 2005)



Linan and Chen (2009) believe that cultural values exert their influence on the three antecedents of intention as well as their relative strength in explaining entrepreneurial intention. This model (Figure 2.17) is derived from the Theory of Planned Behaviour but country was used as a proxy for cultural variables.

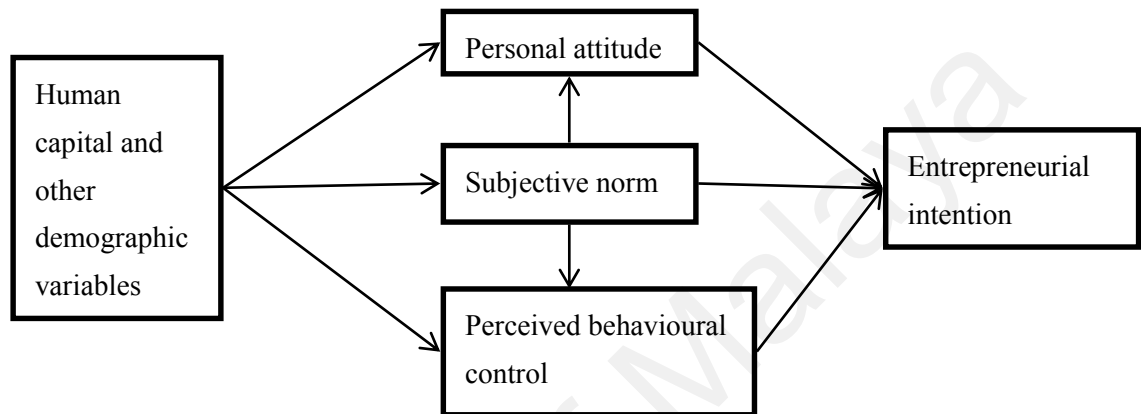


Figure 2.17 Entrepreneurial intention model (Linan & Chen, 2009)

These ten models on the relationship between values, cognition and behaviour are summarised in Table 2.5.

Table 2.5 Summary of similar attempts

Model	Environmental	Cross-disciplinary	Process	Behavioural and cognition	Adopted established theory?	Empirical?
1. Bird (1988)	√	√	√	√	X	X
2. Bygrave (1989)	√	√	√	Behavioural only	√	X
3. Berry <i>et al.</i> (1992 cited in Lonner and Adamopoulos, 1997)	√	√	√	Behavioural only	√	X
4. Krueger and Carsrud (1993)	√	√	√	√	√	X
5. Lee (2000)	√	√	√	√	√	√
6. Busenitz and Lau (1996)	√	√	√	√	√	X
7. Fishbein and Yzer (2003)	√	√	√	√	√	X
8. Dimitratos and Plakoyiannaki (2003)	√	√	X	Behavioural only	X	X
9. Karahanna <i>et al.</i> (2005)	√	√	√	√	√	X
10. Linan and Chen (2009)	√	√	√	√	√	√

From the summary above, it is obvious that majority of these frameworks are conceptual, probably due to the difficulty of operationalising environment and identification of a suitable values model. Nevertheless, this conceptual and empirical evidence strongly support developing and testing a framework that includes as many as possible elements of entrepreneurship. Overall, the integrative framework proposed by

current study is cross-disciplinary, adopts established theories and uses behavioural and cognition process which will be empirically tested. There are two reasons why this study excludes environment: firstly, there is no widely accepted environment framework and secondly, the biological, sociological and ecological factors of environmental influences have been reflected in values.

### **2.9.3 Proposed framework integrating entrepreneurial values and the Theory of Planned Behaviour**

The literature provides strong theoretical underpinnings to integrate entrepreneurial values and the Theory of Planned Behaviour into a coherent theoretical framework. The model developed herein builds on earlier research that implicitly and explicitly advocated integration. Implicitly, upper echelons theory (Hambrick, 2007; Hambrick & Mason, 1984), decision making (Hastie, 2001) and microfoundations of entrepreneurship (Zahra & Wright, 2011) postulate that decision-makers' values significantly affect their cognition and strategic choices.

Two models explicitly suggest integration. Firstly, Shapero and Sokol's (1982) model argues that values influence desirability and feasibility of entrepreneurial event formation (see Figure 2.4). Secondly, Leung (1989) suggests several levels of antecedent variables in the process to explain the outcome variable at individual level analysis. Using explicit theories to guide the selection of antecedent variables to minimise the impact of cultural biases, he adopts the 'bio-social ecological' approach. The process depicted in Figure 2.18 would usually start with biological, sociological or ecological variables; the next group of variables is psychological; the third group is the outcome variable. This process

is consistent with using sociological and psychological approaches to the study of entrepreneurial characteristics / personality (which are correlated with values) and behaviour at individual level (Paulin et al., 1982).

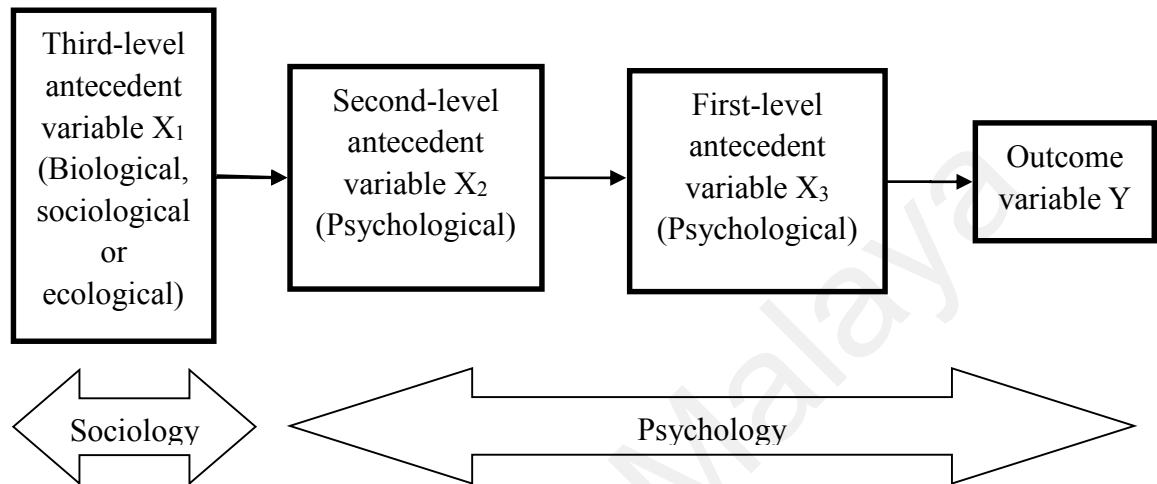


Figure 2.18 Multiple levels of antecedent variables (adapted from Leung, 1989)

The third-level antecedent variables are closely parallel to values which is cognitive representations of three universal requirements of human existence: (a) biological needs, (b) interactional requirements for interpersonal coordination and (c) societal demands for group welfare and survival (Schwartz & Bilsky, 1987). The second-level psychological antecedent variables are parallel to Behavioural Beliefs, Normative Beliefs and Control Beliefs, which are the determinants of intention. The first-level of psychological antecedent variable is intention which is the best predictor of behaviour as discussed in Section 2.8.5.

Leung (1989) contends that this approach promotes systematic and theory-guided research as a result of utilising a general framework recognised by many as useful and productive. Interestingly, Leung's (1989) proposition is consistent with Triandis' (1972),

lending further credence to the integration of the Values Theory and the Theory of Planned Behaviour. Triandis proposes that at the most general level (i.e. third-level antecedent variable in Figure 2.18) there are laws that are valid across cultural groups in regards to broad phenomena such as values. At the next level (i.e. second- and first-level antecedent variables in Figure 2.18), there are laws that depend on the cultural and demographic characteristics of the actors pertaining to specific attitudes, such as export. At the most specific level, there are empirical generalisations applicable to specific sub-groups or intra-national diversity.

In summary, given the present state of knowledge, there are sufficient theoretical and empirical underpinnings for integrating these two theories into a coherent model as all the constructs are subjective culture (Triandis, 1972). The two theories have weaknesses on their own but they are compatible and complimentary when integrated (Looi, 2013). The relevant dimensions in the values construct are self-direction, stimulation, achievement and power, based on theoretical consideration in Section 2.7.3. Thus, the integrative model proposed for this doctoral investigation is depicted below.

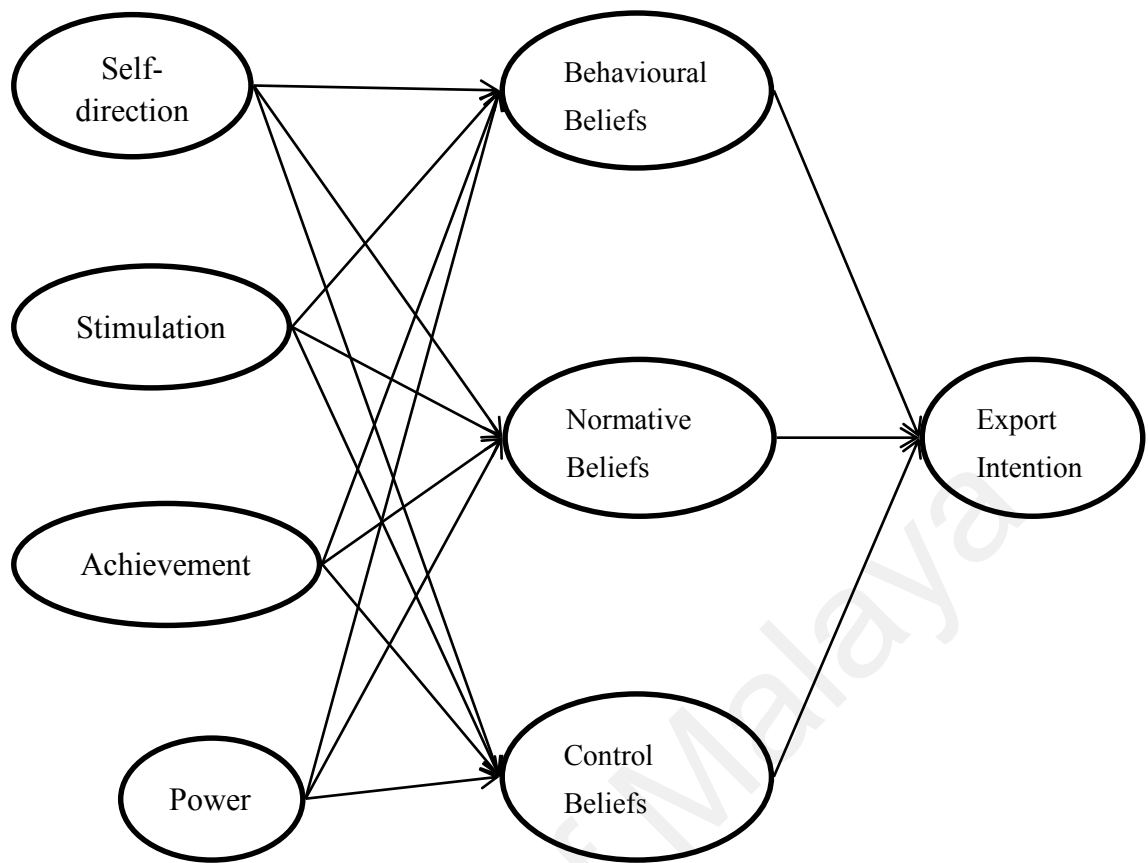


Figure 2.19 Proposed integrative framework

The proposed integrative and complimentary model constitutes an endeavour to advance a useful conceptual framework that explains and predicts empirical phenomena, not previously explained or predicted by conceptual frameworks found in other fields (Shane & Venkataraman, 2000). The proposed integrative model is cross-disciplinary, that is, from sociology to psychology (Ireland & Webb, 2007; Sexton, 1982). It starts with the Values Theory that represent the broad and basic motivations relevant to a wide variety of behaviour across the different domains of life which then funnel to Behavioural Beliefs, Normative Beliefs and Control Beliefs and subsequently to Export Intention in this study.

The proposed integrative framework is a response to the call for improving theory building, enhancing rigour in invoking and applying established theories (Zahra & Dess, 2001). At the same time, this framework also meets the ‘What’, ‘How’ and ‘Why’

propose by Whetten (1989). In the ‘What’ element, all the variables which form part of explanation are in the framework. The framework is comprehensive yet parsimonious. For ‘How’, this framework clearly shows the causal relationship of all variables. Finally, the ‘Why’ or the rationales leading to the formulation of the proposed integrative framework are explained in detail.

This diagram or path model is an important first step that illustrates the sequence of the constructs and the relationships among constructs that are theory-driven. These relationships will be examined via hypothesis testing with Structural Equation Modelling (Hair et al., 2014). The path model in Figure 2.19 shows the structural model which describes the relationships among the constructs. The measurement models which describe the relationships between the constructs and their indicators will be discussed and operationalised in the next chapter on Research Methodology.

## **2.10 Propositions**

Based on the research gaps discussed in the preceding sections, this section suggests the following propositions regarding the relationship between the Values Theory and the Theory of Planned Behaviour:

Proposition 1: Entrepreneurial values significantly influence the three antecedents of Export Intention.

Proposition 2: The three antecedents of Export Intention significantly predict Export Intention.

Proposition 3: Gender, ethnicity and current exporting status moderate the proposed integrative framework.

## **2.11 Assumptions**

### **2.11.1 Theory-driven assumptions**

Low and MacMillan (1988) advocated that both research and assumptions should be theory driven. There are two theoretical assumptions underlying this study. Firstly, internationalisation is needed for survival and growth. Hence, entrepreneurs aim to internationalise their businesses. Secondly, internationalisation is proactive rather than reactive, that is, not a result of unsolicited orders.

### **2.11.2 Assumptions for the Theory of Planned Behaviour**

This study omits feedback loops at various stages of the Theory of Planned Behaviour, in other words, feedback from behaviour to beliefs (Fishbein & Ajzen, 1975) or even to values. In addition, similar to many other prior studies using the Theory of Planned Behaviour, this study also excludes interactions among antecedents of intention (See Figure 2.6).

Although Armitage and Conner (2001) assert that Perceived Behavioural Control independently predicted intention in many domains, however, to the best of the researcher's knowledge, this assertion has not been examined in entrepreneurship. As a result, all three antecedents of intention will be tested.



### **2.11.3 Assumptions for values**

This study attempts to shed some light on the causal relationship from values to entrepreneurs' Export Intention but acknowledges the important influence of other relevant variables. In other words, values may be necessary but not in itself sufficient (Lim, 1998; Schneider, 1989; Tan, 2002).

By applying the proposed integrative framework to examine entrepreneurs from different ethnic groups, this study assumes the etic nature of the framework (Lee, 2000). Etic approach is to reduce ethnic psychology to common denominators for comparative purposes (Lonner & Adamopoulos, 1997). Berry (1969) postulates that etic approach (1) studies behaviour from a position outside the system, (2) examines many cultures and compares them, (3) the structure is created by the analyst and (4) criteria are considered universal. The Values Theory by Schwartz (1992, 1994) adopted for this study fulfilled all these characteristics.

Finally, this study assumes that the psychology of the entrepreneur is the antecedent of entrepreneurial values rather than the entrepreneurial experience causing the formation of entrepreneurial values (Hornaday, 1982). In other words, it is the differences in values that shape entrepreneurial behaviour rather than entrepreneurial experience that lead to significant change in values (McGrath et al., 1992a; M. Morris & Schindehutte, 2005). This study treats entrepreneurial values as antecedent of behaviour rather than outcome of behaviour.

## **2.12 Conclusions**

With the extensive review of the extant body of literature, this study recognises the importance of theory in scholarly research. This chapter identifies nature and domains of entrepreneurship, surveys the extant research on entrepreneurship, SMEs, sociology and psychology, reviews the determinants of entrepreneurship as well as intra-national diversity of entrepreneurship and deliberates the utilities of psychological approach to investigate the entrepreneurship phenomenon. All these prior empirical studies and theories highlighted several fruitful research gaps that merit further scholarly research. It also provides the theoretical underpinnings for the proposed integrative framework, along with the research questions, corresponding research objectives and hypotheses to be empirically tested in the next chapter.

Assumptions for this study are clearly identified. This study hopes to shed some light on a number of important issues in order to make some significant contributions to the body of knowledge in terms of theory, practice and policy on international entrepreneurship. The next chapter reviews prior methodological studies and theories to select suitable research methodology to test the hypotheses formulated.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The theoretical aspect of this study has been deliberated in Chapter Two Literature Review. This chapter presents a series of rational decision-making pertaining to an appropriate research methodology and describes in detail the process involved.

This chapter is structured as follows. It starts with research questions, research objectives and hypotheses. It then discusses the research paradigm that shapes the research design. Next, this chapter selects the appropriate research design to achieve the stated research objectives. This chapter ends with conclusions.

#### **3.2 Research gaps, research questions, research objectives and hypotheses**

This section describes the research gaps, research questions, research objectives and hypotheses to be tested in this study.

##### **3.2.1 Research gaps**

From the extensive review of literature, this study aims to address several research gaps at the macro and micro levels. At the macro level, this study will adopt more holistic and multi-disciplinary theoretical approaches. Moreover, this study on international entrepreneurship will be grounded on both international business and entrepreneurship. At the micro level, the Values Theory and the Theory of Planned Behaviour are integrated or hybridised to construct a new, valid and reliable theoretical framework which will be empirically tested. For theory building, this research will also investigate the impacts of

contextual factors such as gender, ethnicity and current exporting status on the values, beliefs and export intention.

### **3.2.2 Research questions**

The first step in the research process is the definition of areas, topics or questions to be studied precisely and meaningfully (Paulin et al., 1982; Peterson & Horvath, 1982). A well-defined research question generally will suggest the suitable research methodology, considering the availability of data, the prevalent state of theory in that field and the personal skills of the researchers (Peterson & Horvath, 1982).

From the chapter on literature review, the following research questions are put forward. The first research question is whether the proposed integration of the entrepreneurial values and the Theory of Planned Behaviour is supported by empirical evidence? The second question addresses which entrepreneurial values significantly influence the three determinants of Export Intention? Third, are Behavioural Beliefs, Normative Beliefs and Control Beliefs significant determinants of Export Intention? Fourth, what is the relative weightage of Behavioural Beliefs, Normative Beliefs and Control Beliefs on Export Intention? And fifth, how gender, ethnicity and current exporting status moderate the proposed integrative model?

### **3.2.3 Research objectives**

The objective or purpose of research is to make predictions or to explain phenomenon (Kerlinger, 1964 cited in Paulin et al., 1982). Consequently, clear and specific objectives of a study should be explicitly stated from the beginning (Low & MacMillan, 1988).

The objectives of this study are formulated based on the extensive discussion on research gaps in Chapter Two Literature Review. The first objective is to propose and empirically test the integration of entrepreneurial values and the Theory of Planned Behaviour in the context of SME international entrepreneurship as shown in Figure 2.19. This is a theory driven research where theory can be tested and elaborated to develop informed knowledge in entrepreneurship (Amit et al., 1993; Low & MacMillan, 1988).

The second objective is to identify which entrepreneurial values significantly influence the three determinants of Export Intention, that is, Behavioural Beliefs, Normative Beliefs and Control Beliefs.

The third objective is to investigate the significance of the three antecedents of intention in predicting Export Intention in a collectivist country. The fourth objective is to determine the relative weightage of the three antecedents of intention in predicting Export Intention in a collectivist country. These two objectives are consistent with the theory development suggested by Berry *et al.* (1992 cited in Lonner & Adamopoulos, 1997) which consists of three steps:

1. Transport and test a theory in other cultures.
2. Failure to generalize the theory should lead to discovery of variation in behaviour.
3. Combine or integrate first two goals to develop a more universal theory. This integration is similar to Zahra's (2007) notion of feedback to theory, meaning how the results from other cultures alter the assumptions and predications of theory.

The fifth objective is to test the proposed integrative model within intra-national diversity (Thomas & Mueller, 2000), that is, explore how the relationships from

entrepreneurial values to Export Intention are moderated by gender, ethnicity and current exporting status of entrepreneurs.

In addition to the specific objectives, the larger objective (Low & MacMillan, 1988) is to provide insights to fine tune public policies to facilitate greater levels of exporting by SMEs and in the process, further the economic progress of Malaysia.

#### **3.2.4 Hypotheses**

Theory should be expressed in a testable form (Popper, 1962 cited in Johnson & Duberley, 2000). Based on the theory-grounded integrative framework, this study formulates a priori hypotheses to be empirically tested (Kaish & Gilad, 1991; Low & MacMillan, 1988).

The proposed integrative framework for the present study leverages the Values Theory and the Theory of Planned Behaviour to investigate the influence of entrepreneurial values on Export Intention mediated by the psychological process (Figure 3.1). To achieve the first and second research objectives, 12 hypotheses are developed for testing.

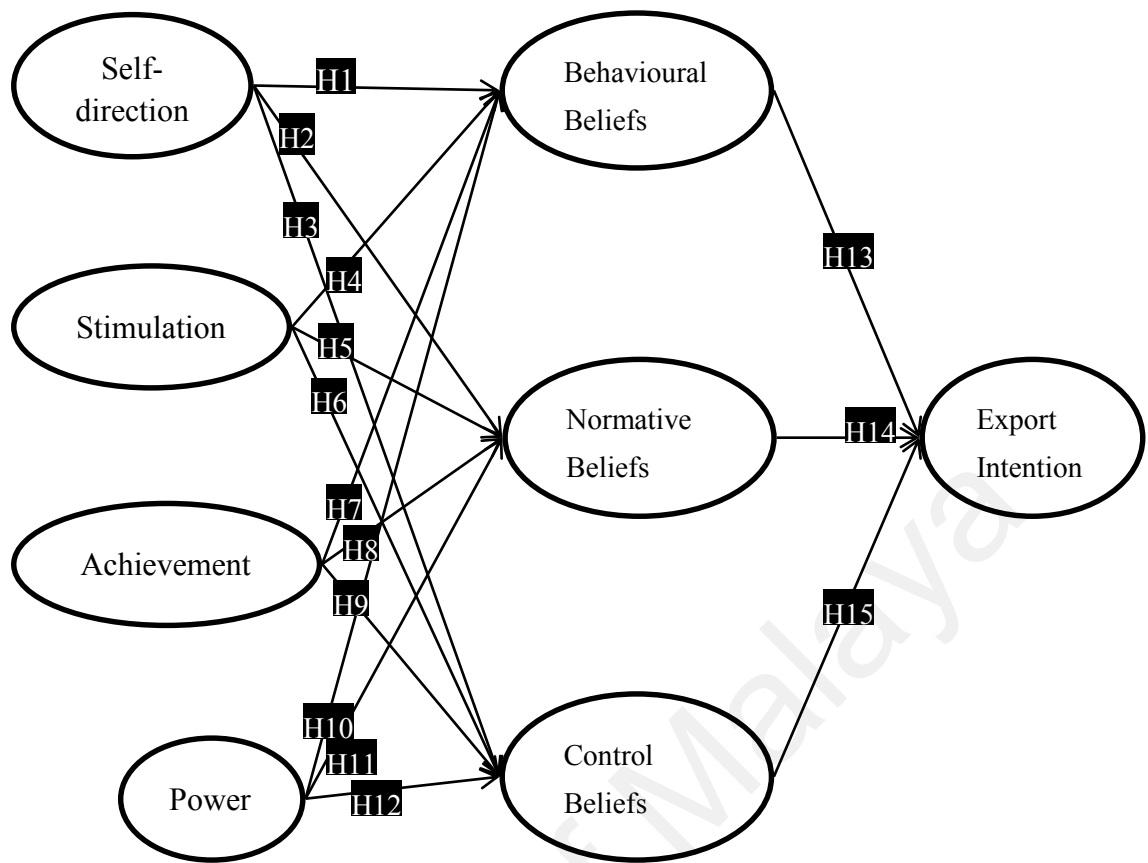


Figure 3.1 Proposed integrative framework and related hypotheses

Prior studies suggest that individualism is often associated with entrepreneurship (Hayton et al., 2002; Hechavarria & Reynolds, 2009; McGrath et al., 1992a; Shapero & Sokol, 1982; Thomas & Mueller, 2000). As such, the personal focus values of self-direction, stimulation, achievement and power are positively associated with entrepreneurship (Schwartz, 2015). Furthermore, prior literature suggests the four values are associated with entrepreneurship (Jaén, Moriano, & Liñán, 2013; Licht, 2010; Noseleit, 2010).

Values induce valences of potential future outcomes (Feather, 1995; Verplanken & Holland, 2002). That is, actions become more attractive and more valued subjectively as they promote the attainment of valued goals. Therefore, the four entrepreneurial values should give direction and emotional intensity to SME entrepreneurs' perceptions of

personal desirability, that is, their behavioural beliefs about the positive outcomes of the entrepreneurial event of exporting to new markets. Thus, this study hypothesizes that:

H1 Self-direction positively influences behavioural beliefs.

H2 Stimulation positively influences behavioural beliefs.

H3 Achievement positively influences behavioural beliefs.

H4 Power positively influences behavioural beliefs.

Values are acquired in the socialization process and are learned (Schwartz, 1994) from the individuals' referents such as parents, family members, role models, peers and other significant people. These referents will positively influence and encourage the social desirability of different behaviours. Therefore, the four entrepreneurial values should exert on SME entrepreneurs the normative expectations of others and motivation to comply with the entrepreneurial event of exporting to new markets. Thus, this study hypothesizes that:

H5 Self-direction positively influences normative beliefs.

H6 Stimulation positively influences normative beliefs.

H7 Achievement positively influences normative beliefs.

H8 Power positively influences normative beliefs.

The entrepreneurial values will drive entrepreneurs to be ambitious, creative, ready to take risks to gather resources, acquire capabilities, and overcome barriers in order to achieve their individualistic goals. Therefore, the four individualistic values should enhance SME entrepreneurs' perceptions of feasibility, that is, their control beliefs about



the presence of factors that facilitate the entrepreneurial event of exporting to new markets. Thus, this study hypothesizes that:

H9 Self-direction positively influences control beliefs.

H10 Stimulation positively influences control beliefs.

H11 Achievement positively influences control beliefs.

H12 Power positively influences control beliefs.

Finally, the application of TPB in the context of entrepreneurship suggests that the three determinants of intention are positively related to the intention to export to new markets (Acedo & Galan, 2011; Sommer & Haug, 2011). Thus:

H13 Behavioural beliefs positively affect the intention to export to new markets.

H14 Normative beliefs positively affect the intention to export to new markets.

H15 Control beliefs positively affect the intention to export to new markets.

To achieve the fifth research objective, gender, ethnicity and current exporting status of entrepreneurs are used as moderators to investigate their moderation effects on the proposed integrative model.

H16 There is no difference in the structural model between female and male small and medium-sized entrepreneurs.

H17 There is no difference in the structural model between Malay and Chinese small and medium-sized entrepreneurs.

H18 There is no difference in the structural model between small and medium-sized exporters and non-exporters.

### 3.3 Research Paradigm

Paradigm is a basic set of beliefs that guide disciplined inquiry (Guba, 1990). It is the foundation that governs what inquiry is and how it is practiced. Researchers have an obligation to clearly state the paradigm embraced (Creswell, 2009). The present study adopts a post-positivism paradigm, which is very influential in the management disciplines (Johnson & Duberley, 2000).

Post-positivism paradigm aims to predict and control (Guba, 1990). It is deterministic (i.e. causal), reductionism (i.e. reduce the ideas into a small, discrete set of ideas to test) and using empirical observation and measurement of objective reality for theory verification (Creswell, 2009; Johnson & Duberley, 2000). Thus, post-positivism starts with a theory and collects data to support or refute the theory (Creswell, 2009), which means it is deductive. The five underlying assumptions of post-positivism paradigm (Creswell, 2009; Johnson & Duberley, 2000) are: (1) knowledge is conjectural where absolute truth can never be found (hence, researchers indicate a failure to reject the hypothesis), (2) survival of the fittest theory, (3) data, evidence and rational considerations shape knowledge, (4) the causal relationships are described in terms of hypotheses and (5) be objective and avoid bias.

Table 3.1 summarises the three basic questions of ontology, epistemology and methodology answered by post-positivist paradigm. Entrepreneurship researchers should conduct more causal studies (Paulin et al., 1982; West, 1997) and therefore, post-positivist paradigm will guide the research design for this study.

Table 3.1 Three basic questions answered by post-positivist paradigm (Guba, 1990)

Basic question	Post-positivist paradigm
Ontological: What is the nature of the 'knowable'? Or, what is the nature of 'reality'?	Critical realist – reality exists but can never be fully apprehended. It is driven by natural laws that can only be incompletely understood
Epistemological: What is the nature of the relationship between the knower (the inquirer) and the known (or knowable)?	Modified objectivist – objectivity is a regulatory ideal that can only be approximated, with special emphasis placed on external guardians such as the critical tradition and critical community
Methodological: How should the inquirer go about finding out knowledge?	Modified experimental/manipulative – emphasises critical multiplism, that is, the findings be based on as many sources as possible – data, investigators, theories and methods. Doing inquiry in more natural settings, using more qualitative methods.

Post-positivist paradigm in management research is generally associated with the quantitative method (Creswell, 2009; Johnson & Duberley, 2000; West, 1997). The quantitative method is used to test objective theories and produce a structured written report consisting of an introduction, literature review and methods, results and discussion (Creswell, 2009; Denzin & Lincoln, 2011). In the present study, qualitative research will also be used during pre-test and pilot study to explore respondents' understanding of various items in the questionnaire (Creswell, 2009). In the ensuing sections, the research design suitable for a causal study to test the hypotheses developed in Section 3.2.3 will be discussed.

### 3.4 Research design

Entrepreneurship scholars need to direct more attention to research design (Zahra & Dess, 2001) because a credible research design facilitates better understanding of an important

phenomenon (Paulin et al., 1982; Tung & Verbeke, 2010). However, there is no single best research design (Low & MacMillan, 1988) because the specific choice of a research design is dependent on the problem definition, purpose, rigour desired and the state of prior research and theory, for example, significant research thrusts, the major conclusions and the major unanswered questions (Cavana et al., 2001; Churchill & Lewis, 1986; Paulin et al., 1982; Peterson & Horvath, 1982; Tung & Verbeke, 2010).

#### **3.4.1 Level or unit of analysis**

Entrepreneurship is a phenomenon that can be studied at various levels, such as international, national, industry, societal, organisational and individual (Etemad, 2004a; Kirkman et al., 2006; M. H. Morris & Lewis, 1995). Majority of entrepreneurship studies are conducted at the individual level (Gartner et al., 1994; Pennings, 1982; Wortman, 1987) and the reasons are obvious. First, entrepreneurs are usually defined as enterprising individuals (Andersson, 2000; Greenfield & Strickon, 1981; Shane & Venkataraman, 2000). Second, they are 'men of action' (Schumpeter, 1911 cited in Mishra & Zachary, 2011) and the most important agents of change (Carland et al., 1988; Ruzzier et al., 2006) by energising the entrepreneurial process (Johnson, 1990). They perform entrepreneurial activities of conceiving possibilities, taking risks, innovating, exploiting business opportunities and are motivated to persist until the goal is achieved (Ruzzier et al., 2006; Shaver & Scott, 1991).

Along similar line, at the individual level of analysis, entrepreneurship refers to the entrepreneur's ability to make new combinations, perceive opportunities, take risk, be innovative and have a sense of efficacy and motivation for achievement (Gasse, 1982).

Individual level of analysis also includes the entrepreneur's ideas about persons and things (Brockhaus & Horwitz, 1986) as well as the role of other actors (Davidsson et al., 2001). For the present study, all these elements will be incorporated as indicators in the questionnaire.

International entrepreneurship research can also be conducted at the individual level (McDougall & Oviatt, 2000; Oviatt & McDougall, 2005a). It is widely recognised that the individual entrepreneur is the central factor in small firms' strategic decision to internationalise, whether in starting, ending and/or increasing international activities (Andersson, 2000; Andersson & Wictor, 2003; Miesenbock, 1988; Muzychenko, 2008; Reid, 1981). International entrepreneurship emphasises entrepreneurs (as well as entrepreneurs' characteristics) as the foremost variable in SMEs' internationalisation research (Ruzzier et al., 2006). Analysis at the level of entrepreneur improves our knowledge of internationalisation behaviour (Andersson, 2000) but presently international entrepreneurship research under-utilises the individual level of analysis (Zahra, 2005).

Research on the entrepreneur as an individual uses both sociological and psychological approaches to study entrepreneurial characteristics or personality (characteristics are correlated with values as discussed in Chapter 2 Literature Review) and behaviour (Paulin et al., 1982). Psychology emphasises the individual as the level of analysis (Gartner et al., 1994; Shaver & Scott, 1991) and the Theory of Planned Behaviour is at individual level (Ajzen, 1991; Ajzen & Fishbein, 1980). The Values Theory can be studied at individual and group levels (Schwartz, 2007). By selecting the individual level of analysis, both predictor and criterion variables in the proposed

integrative framework will be measured at the same level of analysis (Hisrich et al., 2007). By measuring predictor and criterion variables at the same level of analysis, this study avoids the fallacy of relating and interpreting data at different levels of analysis (Hofstede, Bond, & Luk, 1993).

### **3.4.2 Sampling design**

In a given study, the researcher is obliged to clearly describe the research populations being scrutinised (Johnson, 1990). There are several recommendations in the literature pertaining to selection of samples.

Gartner (1989) suggests that researchers select appropriate samples that reflect both the type of theories to be examined and the constructs in the models (i.e. Values Theory and the Theory of Planned Behaviour in the present study). For study on cognitive processes, primary data collected through direct contacts with entrepreneurs are preferable (Shook et al., 2003). The definition of entrepreneur determines the selection of the entrepreneur sample, that is, sample of entrepreneurs selected is the operational definition of the entrepreneur (Gartner, 1989). The definition of entrepreneur under Section 1.3 in Chapter One Introduction, which is owner and manager, describes the variables specifically characterising the entrepreneur. Subsequent to the logic for identifying appropriate samples, controls are needed to ensure that appropriate samples are gathered (Gartner, 1989). This control will be in the form of background items in the questionnaire to ensure respondents fall within the definition of small and medium-sized entrepreneurs in the Malaysian context. SME Corporation Malaysia defined SMEs in the manufacturing sector as having sales turnover of less than RM50 million or full-time

employee of less than 200. The majority of Malaysian studies that compare and contrast the behavior of different ethnic groups focused mostly on Malays and Chinese (Fontaine & Richardson, 2003), as such, only Malay and Chinese SME entrepreneurs will be selected. The use of a Malaysian entrepreneur sample extends the empirical scope of international entrepreneurship literature.

Besides relating to an overall framework of individual entrepreneurship, this study will also target a specific sample (Gartner, 1989; Wortman, 1986). The disadvantage of broad and over-generalised classifications of entrepreneurs which ignore their specific businesses is that the research results and interpretations will be imprecise (Carsrud et al., 1986). Therefore, instead of targeting all small and medium-sized businesses, this study will draw samples from the food, beverages and agricultural produce industry irrespective of whether they are currently exporting or not, which means that non-intending subjects are included (Krueger & Carsrud, 1993).

This study adopts purposive sampling, which is a sampling design in which the required information is gathered from specific target groups on some rational basis (Cavana et al., 2001), that is, small and medium-sized entrepreneurs from the food, beverages and agriculture produce industry. The number of SMEs qualified for this survey in terms of product (in the food, beverages and agriculture produce industry), size (small and medium-sized) and active (that is, a going concern) is about two thousand according to the directories published by Small and Medium Industries Development Corporation (SMIDEC) and Malaysia External Trade Development Corporation (MATRADE). Five hundred of these qualified companies were contacted and about half of them consented to participate in this survey.

To increase the response rate for questionnaire, an introductory letter was attached as the first page to explain the objectives of this study, with emphasis on the hot topic of export (Shook et al., 2003) and the promise of data confidentiality. Several days after sending out the letter, the targeted respondents were re-contacted through phone to schedule a short meeting. Throughout the data collection period, this researcher adopted a willingness to meet 'anywhere, anytime,' (Shook et al., 2003). Some small and medium-sized entrepreneurs did not wish to be interviewed probably due to reluctance to discuss their proprietary strategies whereas some were difficult to reach due to their hectic schedule (Shook et al., 2003). Once they were interviewed, snowball sampling was used where new respondents were selected based on recommendations provided by the initial respondents (Cavana et al., 2001). This approach proved more effective than cold-calling and most new respondents obliged to participate in this survey.

Subsequently, a total of 244 responses were collected. This sample size is above the rule of thumb of 200 (Iacobucci, 2010), the suggestion of between 100 to 150 (Gefen, Straub, & Boudreau, 2000) and is close to the average sample size in previous covariance-based SEM studies of 246 (Hair, Sarstedt, Pieper, & Ringle, 2012c). Hence, this sample size is sufficient to apply Structural Equation Modelling in analysing the causal relationships among constructs in the proposed integrative framework.

This study is cross-sectional where data were collected just once over a period of eight months. However, cross-sectional and survey based data to assess the hypotheses may cause common method bias (Hult, Cavusgil, Deligonul, Kiyak, & Lagerstrom, 2007). This issue will be addressed when discussing the development of the measurement scale in the following section.



### **3.4.3 Measurement and measures**

The development of research framework and hypotheses about the relationships among constructs were established in Chapter Two and Section 3.2.3 in this chapter, respectively. However, constructs do not ‘exist’ in an absolute sense but are defined into existence (Hofstede, 2001). Operationalization is the process of letting something we can observe represent something we cannot observe, that is, unobservable concept or construct is reduced to observable indicators (Johnson & Duberley, 2000). In other words, the outcome of operationalising the construct is measurement (Hofstede, 2001). Therefore, research must specify what constructs mean through their operationalisation of definition and identify variables for measurement purposes (Paulin et al., 1982). Constructs about individuals’ internal mental states often can be measured only by asking research respondents (Schwab, 2005).

There are several important issues pertaining to measurement that need to be addressed. The first issue is that the choice of the measurement must reflect the objectives of the study (Gasse, 1982). In this causality study, multi-item questionnaire (Krueger et al., 2000; Nunnally, 1978) will be used to collect structured and quantitative data (Paulin et al., 1982).

The second issue is to decide whether the constructs in the research framework is formative or reflective. This requires a clear conceptual definition of the construct, generate a set of measures representing the domain of each construct (although all the measures do not adequately represent the particular construct) as well as careful reflection of the relationships between the construct and its measures (Jarvis, MacKenzie, &

Podsakoff, 2003). The most commonly used latent construct measurement model is the reflective model (Jarvis et al., 2003).

The third issue is to ensure validity when performing operationalisation. Both good measurements and good theory are needed to achieve good construct validity (Hofstede, 2001; Johnson & Duberley, 2000). In this respect, measuring instruments meticulously developed and validated should be used to measure values, beliefs and intentions (Davidsson, 1995).

The fourth issue is the etic approach of taking questionnaires designed and pretested mainly in Western countries, translated and administered to people in this country, which can create ethnocentrism problem (Hofstede, 2001). Although the items in the Values Theory (i.e. Portrait Values Questionnaire to be discussed in Section 3.4.4.2) are validated universally, the items in the Theory of Planned Behaviour will have to be designed to overcome this problem (to be discussed in Section 3.4.4.3 below).

The fifth issue is common method variance (also known as common method biases) which is variance or error attributable to the measurement (Davidsson et al., 2001; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Common method variance poses a rival explanation for the correlation observed between the measures. Hence, common method variance needs to be effectively controlled (Podsakoff et al., 2003). Because the sources of common method bias are diverse and complex (Podsakoff et al., 2003), thus there are no straightforward remedies. The best strategy is to start at the research design stage. There are seven causes of common method bias identified as relevant for this study and the action taken are summarised in Table 3.2 below.

Table 3.2 Summary of action taken to minimise common method bias (Adopted from Podsakoff et al., 2003)

Cause	Definition	Action taken
1. Acquiescence biases (yea-saying and nay-saying)	Propensity for respondents to agree or disagree with items independent of their content	Questionnaire will be discarded if only one or two scale is used to answer all items
2. Item social desirability	Items may be written in such a way as to reflect more socially desirable attitudes, behaviours or perceptions	(a) Avoid framing socially desirable items (b) Avoid loaded questions that will bias responses
3. Item ambiguity	Respondents respond to ambiguous items systematically using their own heuristic or respond to them randomly	(a) Define ambiguous or unfamiliar terms (Tourangeau et al, 2000 cited in Podsakoff et al., 2003) (Hunt, Sparkman, & Wilcox, 1982) (b) Avoid vague concepts and provide examples when such concept must be used (Tourangeau et al, 2000 cited in Podsakoff et al., 2003) (c) Keep questions simple, specific and concise (Tourangeau et al, 2000 cited in Podsakoff et al., 2003) (d) Avoid double-barreled questions (Tourangeau et al, 2000 cited in Podsakoff et al., 2003); (Hunt et al., 1982) (e) Decompose questions relating to more than one possibility into simpler, more focused questions (Tourangeau et al, 2000 cited in Podsakoff et al., 2003) (f) Avoid complicated syntax (Tourangeau et al, 2000 cited in Podsakoff et al., 2003) (g) Ensure that all possible answers are included among the alternatives in response

		scale.
4. Common scale formats	Artifactual co-variation produced by the use of the same scale format	Use faces scale for intention (criterion variable) and Likert scale for the other constructs (predictor variables). This faces scale will create a psychological separation to make it appear that the measurement of the predictor variables are not connected with or related to the measurement of the criterion variable.
5. Common scale anchors	Repeated use of the same anchor points	Different anchors are used for different constructs. For example, value items from ' <i>Very much like me</i> ' to ' <i>Not like me at all</i> '. Intention, Behavioural Belief Strength, Control Belief Strength and Normative Belief Strength items from ' <i>Extremely likely</i> ' to ' <i>Extremely unlikely</i> '. Motivation to Comply from ' <i>Strongly agree</i> ' to ' <i>Strongly disagree</i> '
6. Positive and negative item wording	The use of positively (negatively) worded items may produce artifactual relationships	All items are positively worded to minimize common method variance
7. Intermixing of items or constructs	Items from different constructs that are grouped together may decrease intra-construct correlations and increase inter-construct correlations	Items from the same construct are grouped together (Note: this grouping proved to be a correct decision because the convergent and discriminant validity as discussed in Chapter Four Data Analysis are satisfactory)

Finally, when designing item wording, the following points were considered (Schwab, 2005):

1. Keep the respondent in mind by not asking for information that participants cannot or will not provide.
2. Make it simple by keeping the words and questions simple. Items were constructed

based on respondents' knowledge, attention and memory. The questionnaire avoided technical words and jargon unless it is absolutely necessary. In view of the often lower level of management sophistication of SME entrepreneurs (Gasse, 1982), it is essential to keep questions simple, specific and concise. Wherever necessary, explanation was provided in parenthesis.

3. Be specific by being explicit about relevant contextual features such as who, what, when, where and how.
4. Be honest by examining own assumptions and values in order to evaluate question wording for potential implicit biases.

The cover letter to the questionnaire assured respondents that all their answers are anonymous. Furthermore, clear instructions were given at the beginning of the questionnaire stating that there are no right or wrong answers and they should answer questions as honestly as possible (Podsakoff et al., 2003).

Another noteworthy issue in this study is beliefs. Belief items are often mixed together with items that tap values and behaviours, causing theoretical ambiguity and imprecision in model development (Leung & Bond, 2004). From the definitions of value types and the belief composites, the beliefs in the Values Theory and the Theory of Planned Behaviour can be clearly distinguished as shown in Tables 3.3 and 3.4. In summary, values are goals with relative importance and are used as guiding principles in life whereas the beliefs in the Theory of Planned Behaviour are related to consequences of a behaviour, important referents, resources and opportunities. These definitions of belief composites as well as intention form the basis for the development of items to measure constructs in the Theory of Planned Behaviour (Schwab, 2005).

Table 3.3 Definitions of value types (Schwartz, 1994, 2007; Schwartz et al., 2001)

Value type	Definition
Self-direction	Independent thought and action - choosing, creating, exploring
Stimulation	Excitement, novelty and challenge in life
Achievement	Personal success through demonstrating competence according to social standards
Power	Social status and prestige, control or dominance over people and resources

Table 3.4 Definitions of belief composites (Ajzen, 2006)

Belief composite	Definition
Behavioural Beliefs	The subjective probability that the behaviour will produce certain outcomes
Normative Beliefs	The perceived behavioural expectations of important referent individuals or groups
Control Beliefs	The perceived presence of factors that may facilitate or impede performance of a behaviour

In this study, both entrepreneurial values and the Theory of Planned Behaviour constructs were measured by respondents' self-reports. Self-reports tendencies of social desirability and yea-saying (Schwab, 2005) have been addressed in Table 3.2. Self-report of values (Schwartz, 2007) can be reasonably accurate (Bardi & Schwartz, 2003). The self-report method for the Theory of Planned Behaviour is a threat to the validity and reliability of the model (Armitage & Conner, 2001). To address this issue, the reliability and validity of constructs in the Theory of Planned Behaviour were estimated (Ajzen, 2006).

This questionnaire consists of seven parts to collect required sociological and psychological data. Part One collects sociological data about the entrepreneur's values. Part Two to Six collects psychological data, such as Export Intention (Part Two),

Behavioural Beliefs (Part Three), Control Beliefs (Part Four) and Normative Beliefs (Parts Five and Six). The final part gathers some background data such as demographic characteristics (age, gender and ethnicity) (Ajzen, 2006). Schwartz (1992) also recommends demographic and other questions to be placed at the end of the questionnaire. This sequence made it easier to obtain these information because respondents have already made a commitment by completing earlier parts of the questionnaire (Schwab, 2005). Interestingly, the demographic characteristics suggested by Ajzen (age, gender, ethnicity, level of education, income) closely correspond with Schwartz's individual differences in values (Schwartz, 2003, 2007; Schwartz et al., 2001), providing further theoretical support for the integration of the Values Theory and the Theory of Planned Behaviour.

#### **3.4.3.1 Development of questionnaire**

This study adopted a 'multi-items to measure constructs' (Schwab, 2005). The objective of multivariate measurement is to use several indicators representing different aspects of the concept to obtain a more comprehensive perspective (Haenlein & Kaplan, 2004; Hair, Black, Babin, Anderson, & Tatham, 2006).

Operationalisation involves specifying what concepts mean and precisely how they will be measured, in other words, reduction of concepts into indicators (Johnson & Duberley, 2000). The procedures to operationalise or develop multi-item measures for constructs followed the recommendations in measure development literature such as Churchill (1979), Zaichkowsky (1985) and Malhotra (2010). The aims are to develop a set of items that focus directly and unambiguously on the research topic (Schwab, 2005)

as well as having reliability and validity properties (Churchill, 1979; Melewar & Jenkins, 2002). Due to slight variations in the processes in measure development literature, therefore, they are synthesised as described below.

Step one searched for the definitions of constructs in the proposed integrative framework from literature. Step two generated initial list of items and scales. Step three collected data from seven entrepreneurs in pre-test. In addition, expert judgement is sought on face validity of the items. Step four purified the measures. At this stage, issues like common method biases, five types of faulty questions and item wording were addressed. The output from this stage was the questionnaire draft one. Step Five is pilot test using a sample of 30 entrepreneurs. Statistical analysis generated correlations, Cronbach's alphas and factor analysis statistic for further improvement of the items in each construct. Step Six refined the items and generated the final questionnaire.

#### **3.4.3.2 Portrait Values Questionnaire**

There have been calls to develop an independent or exclusive measure of entrepreneurial values and characteristics (see Hayton et al., 2002; Wortman, 1987) (In Chapter Two Literature Review, this study argues that values are synonymous with characteristics). However, Hisrich *et al.* (2007) contend that there is no such necessity. Instead, future research should use established measures developed in the main stream of personality psychology to ensure that key motives are not overlooked (Hisrich et al., 2007). Other advantages of using available and validated measure are time and effort saving (Schwab, 2005).

Davidsson and Wiklund (1997) developed an instrument to measure entrepreneurial



values but in their follow up study discontinued the use of the instrument. This study adopted an instrument called Portrait Values Questionnaire (PVQ) borrowed from psychology and validated over time and in different populations to measure values. PVQ provides a description of people and focuses on the similarities rather than the differences between the portrait and the respondent (Schwartz et al., 2001). It is an instrument using projective technique whereby respondents are unaware that they are answering a values questionnaire (Schwartz et al., 2001). The 40 items in the full Portrait Value Questionnaire (PVQ 40) successfully discriminates the 10 values (Schmidt et al., 2007 cited in Davidov et al., 2008).

Researchers should explain in detail the reasons why a new measure is better (Churchill, 1979). There are several advantages of using PVQ over Schwartz's older measure known as Schwartz Values Survey (SVS). Firstly, PVQ reduces cognitive complexity of the items compared to SVS, hence, PVQ is easy and quick to administer (Schwartz, 2003; Schwartz et al., 2001). Secondly, the PVQ is suitable for self-completion (Schwartz, 2003) and respondents do not report any difficulty in making judgements and rarely ask any questions (Schwartz et al., 2001). Thirdly, to increase the validity and reliability of using a values instrument developed in one country and used in another country, Schwartz translated PVQ into different languages and back translated to ensure they carry the same meaning in different countries (Schwartz, 2003; Schwartz et al., 2001). Usually PVQ is administered in the mother tongue of respondents. The English and Mandarin versions of PVQ used in this study were provided by Schwartz whereas the Malay language version had to be developed. With PVQ available in these three major languages which are widely used in Malaysia, it can overcome language barriers. Fourthly,

for the English version, PVQ is gender-matched with the respondent, that is, it is available in male and female versions (Schwartz, 2003). The difference between the two versions in English is in the prepositions: ‘he’, ‘his’, ‘him’ in the male version and ‘she’, ‘hers’, ‘her’ in the female version. However, the Mandarin and Malay languages are in one version only. Fifthly, PVQ value scores can be used to represent and compare the importance attributed to values across samples as well as across individuals (Schwartz, 2003). This feature enables comparison across samples, such as between gender, ethnic group and current exporting status of entrepreneurs.

In summary, the rationale for adopting PVQ to measure values in this study is threefold (Schwartz, 2003). The PVQ operationalises the theory of basic human values well and is cross-culturally validated to predict and explain variation in values. Moreover, the PVQ demonstrates adequate psychometric properties with rigorous evidence of its validity based on multiple country studies. Finally, the PVQ can quickly provide values scores, it can be administered face-to-face, in writing, by telephone and by internet. In other words, it offers valuable practicality and flexibility.

The items adopted from PVQ 40 for the four values hypothesised relevant to entrepreneurship are shown in Tables 3.5 to 3.8.

Table 3.5 Self-direction

Indicator	Code
Thinking up new ideas and being creative is important to him/her. He/she likes to do things in his/her own original way	V1
It is important to him/her to make his/her own decisions about what he/she does. He/she likes to be free to plan and to choose his/her activities for himself/herself	V11
He/she thinks it's important to be interested in things. He/she likes to be curious and to try to understand all sorts of things	V22
It is important to him/her to be independent. He/she likes to rely on himself/herself	V34

Table 3.6 Stimulation

Indicator	Code
He/she thinks it is important to do lots of different things in life. He/she always looks for new things to try	V6
He/she likes to take risks. He/she is always looking for adventures	V15
He/she likes surprises. It is important to him/her to have an exciting life	V30

Table 3.7 Achievement

Indicator	Code
It's very important to him/her to show his/her abilities. He/she wants people to admire what he/she does	V4
Being very successful is important to him/her. He/she likes to impress other people	V13
He/she thinks it is important to be ambitious. He/she wants to show how capable he/she is	V24
Getting ahead in life is important to him/her. He/she strives to do better than others	V32

Table 3.8 Power

Indicator	Code
It is important to him/her to be rich. He/she wants to have a lot of money and expensive things	V2
It is important to him/her to be in charge and tell others what to do. He/she wants people to do what he/she says	V17
He/she always wants to be the one who makes the decisions. He/she likes to be the leader	V39

For the Malay language version of PVQ, although an Indonesian language version of PVQ is available, it is deemed not suitable for Malaysia as there are some differences in language which might be interpreted differently by Malaysian Malay respondents. The procedure to translate the PVQ from English into Malay language is in accordance to recommendations by Schwartz (1992). Translation experts translated the PVQ from English to Malay language. At the same time, Schwartz supplied a Malay language

version. Both Malay language versions were then back-translated into English. The two Malay language versions and the two back-translated English versions (a total of four versions) were sent to Schwartz who commented on discrepancies from the original version and recommended revisions with explanations. This process of comments and revisions reiterated for several rounds over a period of six months until all the discrepancies were resolved. The final Malay language version was prepared and sent to Schwartz for confirmation and he replied that the work has been completed.

The translation and back translation of items for the Theory of Planned Behaviour and background data by translation experts into Malay and Mandarin languages were rather straight forward as all items are short. Accuracy of translation was checked by this researcher based on the meanings in literature.

#### **3.4.3.3 The Theory of Planned Behaviour**

There is no official Theory of Planned Behaviour questionnaire (Ajzen, 2006). As such, the design of a new Theory of Planned Behaviour measurement instrument in the context of exporting by SMEs relies on a rigorous theoretical and methodological approach. These include the definitions and recommended guidelines provided by Ajzen (2006), empirical evidence as well as a sound methodological approach. Thus far, there is no operationalisation of constructs in the Theory of Planned Behaviour in the context of exporting by SMEs in extant empirical literature. Nevertheless, current literature has indicated important forces at work in international marketing, export by SMEs, entrepreneurship, international entrepreneurship and the Theory of Planned Behaviour to design items in the Theory of Planned Behaviour used in the present study. It is crucial

that the operationalisation of all constructs in the Theory of Planned Behaviour be compatible with the export behaviour in terms of action, target, context and time elements. For the current study, the action is export, the target is new markets, the context is Malaysian SMEs and time is within the next five years or so.

There are two approaches to measure attitude, subjective norm and perceived behavioural control, that is, direct and belief composites (or total sets of salient beliefs) (Ajzen, 2006). Direct measures do not yield much motivation information whereas beliefs are assumed to provide the cognitive and affective foundations, that is, antecedents, which become invaluable information to design effective behavioural intervention programmes (Ajzen, 2006). Because this study is interested to identify salient beliefs (Fishbein & Yzer, 2003) with respect to export from the perspective of SMEs as discussed in Chapter Two, therefore, the belief composites approach will be used rather than direct approach. The following paragraphs discuss the development of items in the Theory of Planned Behaviour.

Intention is an indication of a person's readiness to perform a given behaviour (Ajzen, 2006). In the context of entrepreneurship, "intentionality is a state of mind directing a person's attention (and therefore experience and action) towards a specific object (goal) or a path in order to achieve something (means)" (Bird, 1988, p. 442). In other words, entrepreneurial intention indicates the effort that an entrepreneur will make to carry out entrepreneurial behaviour (Linan & Chen, 2009). In entrepreneurship literature, entrepreneurial intent or intention usually refers to the act of starting a new business (other terms include starting a new organisation, new venture creation or self-employment) (Engle et al., 2010; Kickul & Zaper, 2000; Krueger & Carsrud, 1993;

Krueger et al., 2000; Li, 2007; Linan & Chen, 2009; Zhou, 2004). In this study, Export Intention is operationalised as an entrepreneur's propensity to expand his or her cross-border activities in terms of market scope, which is the number of countries exported to (De Clercq et al., 2005).

Intention to export to new market(s) in the future is directly measured. The items and sources for Export Intention are shown in Table 3.9. At this early stage of item generation, incorporating slightly different nuances of meaning lays a better foundation for the final measure (Churchill, 1979).

Table 3.9 Items and sources for Export Intention

Item	Source(s)
Plan to	Ajzen (2006); Taylor and Todd (1995); Venkatesh, Morris, Davis, and Davis (2003)
Make every effort	Ajzen (1991); Linan and Chen (2009)
Intend	Ajzen (2006); Linan and Chen (2009); Taylor and Todd (1995); Venkatesh et al. (2003)
Likely	Engle et al. (2010)
Will try to	Ajzen (1991)
Considered	Engle et al. (2010); Li (2007)
Prepared	Engle et al. (2010); Li (2007)
Ready	Linan and Chen (2009)
Goal	Linan and Chen (2009)
Determined	Linan and Chen (2009)
Thought of	Linan and Chen (2009)

Behavioural Beliefs are beliefs about the likely outcomes of the behaviour and the evaluations of these outcomes. Normative Beliefs are beliefs about the normative expectations of others and motivation to comply with these expectations. Control Beliefs are beliefs about the presence of factors that may facilitate or impede performance of the

behaviour and the perceived power of these factors (Ajzen, 2006). The three belief composites are measured by:

- (a) Behavioural Beliefs  $\equiv \sum b_i e_i$  where 'b' is Behavioural Belief Strength (advantages and disadvantages of exporting to new markets in the future) and 'e' is the Outcome Evaluation (whether such results are desirable or not).
- (b) Normative Beliefs  $\equiv \sum n_i m_i$  where 'n' is Normative Belief Strength (individuals or groups who approve or disapprove exporting to new markets in the future) and 'm' is the Motivation to Comply (the extent to which their opinion is important to the respondent).
- (c) Control Beliefs  $\equiv \sum c_i p_i$  where 'c' is Control Belief Strength (enabling and impeding factors for exporting to new markets in the future) and 'p' is Control Belief Power (easier/more difficult to export).

In order to identify SME entrepreneurs' salient Behavioural and Control Beliefs about export to new market(s) in the future, a literature review in the fields of international marketing, export by SMEs, entrepreneurship and international entrepreneurship was conducted. The operationalisation of Behavioural Belief Strength construct, Control Belief Strength construct and their sources in the literature are exhibited in Table 3.10 to Table 3.11.

Table 3.10 Behavioural Belief Strength of export to new market(s) in the future

Factor	Item	Source(s)
Advantages	Overcome adverse domestic market conditions (e.g. saturation, recession, intense competition, et cetera.)	Acedo and Galan (2011); Child and Rodrigues (2005); Doole and Lowe (2008); Miesenbock (1988)
	Reduce risk through market diversification	Crick and Spence (2005); Doole and Lowe (2008); Reid (1981)
	Increase sales and profit	Acedo and Galan (2011); Crick and Spence (2005); Doole and Lowe (2008); Lu and Beamish (2001); Miesenbock (1988); Reid (1981)
	Become more competitive	Child and Rodrigues (2005); Lu and Beamish (2001)
	Excess production capacity	Acedo and Galan (2011); Doole and Lowe (2008); Miesenbock (1988); Reid (1981)
	Long-term success	De Clercq et al. (2005)
	Learn from export experience	Autio et al. (2000); De Clercq et al. (2005)
Disadvantages	Stretch limited resources	Miesenbock (1988)

Current literature has indicated that competitive advantage can be the cause for exporting (i.e. enable export) or consequence of exporting (i.e. gain advantages from export). In order to avoid possible confusion to the respondents, this item was classified as cause of export, that is, Control Belief Strength.

Unlike Behavioural Belief Strength which is relatively straight forward, Control Belief Strength is more technical. In view of the potential lower level of management sophistication of SME entrepreneurs (Gasse, 1982), it is deemed necessary to explain some terminologies and at the same time keep questions simple, specific and concise. Therefore, whenever applicable, explanation and/or example are provided in parenthesis after the item in the questionnaire.



Recognising a potential opportunity include serendipity, which is making pleasant and unexpected opportunity discoveries entirely by chance and exploiting it. International market orientation has three elements, namely (1) customer orientation, (2) inter-function coordination and (3) competitor orientation (Narver & Slater, 1990). This question explains the three elements of international market orientation in parentheses by using phrases which are easily understood, such as 'meet foreign country-specific needs', 'company close to the foreign market' and 'proactive view towards competition'.

The literature seems to suggest that another major factor in exporting is knowledge about foreign markets (Andersson et al., 2006; Autio et al., 2000; De Clercq et al., 2005; Dimitratos & Plakoyiannaki, 2003; Doole & Lowe, 2008; Johanson & Vahlne, 1990; Lu & Beamish, 2001; Miesenbock, 1988; Reid, 1981). Psychic distance (Andersson et al., 2006; Doole & Lowe, 2008; Johanson & Vahlne, 1990; Johanson & Vahlne, 2009; Johanson & Wiedersheim-Paul, 1975; Miesenbock, 1988; Reid, 1981) and liability of foreignness (Child & Rodrigues, 2005; Lu & Beamish, 2001) are two terminologies used to describe the lack of knowledge about foreign markets due to differences in language, culture, political systems, level of education, level of economic development and so forth between the home country and host country. In particular, some scholars emphasised the role of culture in international business (Hofstede, 1994), such as cultural empathy (Doole & Lowe, 2008), cultural intelligence (Earley & Mosakowski, 2004) and cross-cultural competence (Lustig and Koester, 1999 cited in Muzychenko, 2008). Instead of asking respondents about psychic distance, liability of foreignness, cultural empathy, cultural intelligence and cross-cultural competence, this item is simplified as “knowledge about export markets, for example, foreign languages, cultures, economic and political systems

and others”.

Entrepreneurial orientation consists of three dimensions: (1) innovativeness (i.e. experiment, creativity and novelty), (2) pro-activeness (i.e. anticipation and acting) and (3) risk-taking (i.e. acceptance of uncertainty). Therefore, this item incorporates these three elements of entrepreneurial orientation paraphrased in parentheses. For the item management, in view of its broad scope and overlapping in contents with some other similar items in the same construct, it was decided to exclude this item in the questionnaire.

Table 3.11 Control Belief Strength of export to new market(s) in the future

Item	Sources
Recognize a potential export opportunity, including by chance	Autio et al. (2000); Crick and Spence (2005); De Clercq et al. (2005); Doole and Lowe (2008); Miesenbock (1988); Reid (1981); Ruzzier et al. (2006); Shane and Venkataraman (2000)
Flexibility to adapt to export markets (e.g. to modify product, process, packaging; changes in import or export regulations, et cetera)	Andersson et al. (2006); Autio et al. (2000); Doole and Lowe (2008); Miesenbock (1988); Reid (1981)
Technology (e.g. machinery, IT, e-commerce, et cetera)	Andersson et al. (2006); Crick and Spence (2005); Doole and Lowe (2008); Lu and Beamish (2001); Miesenbock (1988); Reid (1981)
Availability of resources (e.g. manpower, money, time, et cetera)	Crick and Spence (2005); Doole and Lowe (2008); Lu and Beamish (2001); Miesenbock (1988); Reid (1981)
International market orientation	Andersson et al. (2006); Autio et al. (2000); Dimitratos and Plakoyiannaki (2003); Doole and Lowe (2008); Miesenbock (1988); Muzychenko (2008); Narver and Slater (1990); Reid (1981); Ruzzier et al. (2006)
International and domestic networking	Andersson et al. (2006); Child and Rodrigues (2005); Coviello and Munro (1995); Crick and Spence (2005); Dimitratos and Plakoyiannaki (2003); Doole and Lowe (2008); Lu and

	Beamish (2001)
Confidence to succeed in new markets	Miesenbock (1988)
Export risk of failure	De Clercq et al. (2005); Dimitratos and Plakoyiannaki (2003); Doole and Lowe (2008); Miesenbock (1988)
Information / export market knowledge / international learning (include psychic distance)	Andersson et al. (2006); Autio et al. (2000); Child and Rodrigues (2005); De Clercq et al. (2005); Dimitratos and Plakoyiannaki (2003); Doole and Lowe (2008); Earley and Mosakowski (2004); Hofstede (1994); Johanson and Vahlne (1990); Johanson and Vahlne (2009); Johanson and Wiedersheim-Paul (1975); Lu and Beamish (2001); Miesenbock (1988); Muzychenko (2008); Reid (1981); Tung and Verbeke (2010)
Entrepreneurial orientation (= innovativeness + pro-activeness + risk-taking)	Andersson et al. (2006); Crick and Spence (2005); De Clercq et al. (2005); Dimitratos and Plakoyiannaki (2003); Doole and Lowe (2008); Marino, Strandholm, Steensma, and Weaver (2002); McDougall and Oviatt (2000); Miesenbock (1988); Wiklund and Shepherd (2005)
International experience (e.g. from international working, traveling, living or study, etcetera)	Andersson et al. (2006); De Clercq et al. (2005); Johanson and Vahlne (1990); McDougall, Oviatt, and Shrader (2003); Reid (1981)
Export skills and capabilities	Lu and Beamish (2001); Ruzzier et al. (2006)
Management (e.g. commitment, talent and skills, know-how, aggressive, dynamic, export oriented, speak foreign languages, etcetera)	Andersson et al. (2006); Doole and Lowe (2008); Miesenbock (1988); Reid (1981); Ruzzier et al. (2006)
Competitive advantages	Doole and Lowe (2008)
Trade barriers	Doole and Lowe (2008); Miesenbock (1988)

Similarly, to identify SME entrepreneurs' salient Normative Beliefs about export to new market(s) in the future, literature on the Theory of Planned Behaviour, export by SMEs, international entrepreneurship and entrepreneurship were reviewed. There are disagreements in the extant body of literature on the impact of social norms on entrepreneurial intentions. Krueger *et al.* (2000) suggested multiple-item measures which

include the social norms of network members. The key areas in the operationalisation of Normative Belief Strength construct and their sources in the literature are exhibited in Table 3.12.

Table 3.12 Normative Belief Strength of export to new market(s) in the future

Item	Sources
Family	(Engle et al., 2010; Krueger et al., 2000; Linan & Chen, 2009; Shapero & Sokol, 1982)
Parents	Krueger et al. (2000); Li (2007)
Spouse	Li (2007)
Relatives	Charng, Piliavin, and Callero (1988)
Friend(s)	(Charng et al., 1988; Engle et al., 2010; Krueger et al., 2000; Li, 2007; Linan & Chen, 2009)
Significant others	Engle et al. (2010); Krueger et al. (2000); Li (2007)
People who influence	Venkatesh et al. (2003)
People important to me	Venkatesh et al. (2003)
Other people	Charng et al. (1988)
People I know	Charng et al. (1988)
Network members	Krueger et al. (2000)
Peer(s)	Shapero and Sokol (1982)
Mentor(s) (spiritual / business), advisor(s), expert(s)	(Doole & Lowe, 2008; Engle et al., 2010; Krueger et al., 2000; Lim & Abdullah, 2001; Miesenbock, 1988; Shapero & Sokol, 1982)
Role model(s)	Brockhaus and Horwitz (1986); Engle et al. (2010); Krueger et al. (2000); Shapero and Sokol (1982)
Business partner(s)	Shapero and Sokol (1982)
Government	Doole and Lowe (2008); Miesenbock (1988)

#### 3.4.3.4 Scaling

Azjen (2006) suggested a 7-point semantic differential scale for items in the Theory of Planned Behaviour but mid-point encourages social desirability bias and in turn distorts the results (Garland, 1991). Therefore, all the constructs in the Theory of Planned Behaviour are measured on a six-point Likert scale as shown in Table 3.13.

Table 3.13 Scale for constructs in the Theory of Planned Behaviour

Construct	Scale					
	1	2	3	4	5	6
Export Intention Behavioural Belief Strength Normative Belief Strength Control Belief Strength	<i>Extremely likely</i>	<i>Quite likely</i>	<i>Slightly likely</i>	<i>Slightly unlikely</i>	<i>Quite unlikely</i>	<i>Extremely unlikely</i>
Outcome Evaluation	<i>Extremely good</i>	<i>Quite good</i>	<i>Slightly good</i>	<i>Slightly bad</i>	<i>Quite bad</i>	<i>Extremely bad</i>
Motivation to Comply Control Belief Power	<i>Strongly agree</i>	<i>Quite agree</i>	<i>Slightly agree</i>	<i>Slightly disagree</i>	<i>Quite disagree</i>	<i>Strongly disagree</i>

#### 3.4.3.5 Reflective or formative construct

In using multiple indicators for constructs, there are two different measurement models: reflective and formative (Jarvis et al., 2003), with different estimation procedures (Fornell & Bookstein, 1982). Hence, researchers need to avoid the potentially serious consequences of measurement model misspecification (Jarvis et al., 2003).

The major considerations that determine the mode of a measurement model are purpose of the study and theory (Fornell & Bookstein, 1982; Hair, Sarstedt, Ringle, & Mena, 2012a). For studies intended to account for observed variances, reflective indicators are most suitable. On the other hand, if the purpose is explanation of abstract or unobserved variance, formative indicators should be chosen. Substantive theory conceptualises the unobservable construct. Underlying factors that give rise to something that is observed are categorised as reflective indicators (Fornell & Bookstein, 1982). In other words, the measurement model is reflective when changes in the indicators are

caused by changes in the underlying construct (Jarvis et al., 2003). When constructs are conceived as explanatory combinations of indicators, that is, determined by a combination of variables, the indicators are categorised as formative (Fornell & Bookstein, 1982). In other words, the measurement model is formative when changes in the measures are hypothesised to cause changes in the underlying construct (Jarvis et al., 2003).

In order to determine the mode of measurement model, this study considers the a priori criteria for reflective model propose by Jarvis *et al.* (2003) as shown in the following table.

Table 3.14 Criteria for reflective model (Jarvis et al., 2003)

	Entrepreneurial values	Behavioural Beliefs	Normative Beliefs	Control Beliefs	Export Intention
1. Direction of causality between the construct and its indicators:					
Direction of causality is from construct to items	√	√	√	√	√
Indicators are manifestations of the construct	√	√	√	√	√
Changes in the indicator should not cause changes in the construct	√	√	√	√	√
Changes in the construct do cause changes in the indicators	√	√	√	√	√
2. Interchangeability of the indicators:					
Indicators should be interchangeable	√	X	X	X	√
Indicators should have the same or similar content /	√	√	√	√	√

indicators should share a common theme					
Dropping an indicator should not alter the conceptual domain of the construct	√	√	√	√	√
3. Whether the indicators should co-vary with each other:					
Indicators are expected to co-vary with each other	√	X	X	X	√
a change in one of the indicators be associated with changes in the other indicators	√	X	X	X	√
4. Same antecedents and consequences or not:					
Nomological net for the indicators should not differ	√	X	X	X	√
Indicators are required to have the same antecedents and consequences	√	Antecedents may be different	Antecedents may be different	Antecedents may be different	Antecedents may be different
		Consequences may be the same	Consequences may be the same	Consequences may be the same	Consequences may be the same

Based on the criteria for reflective model (Jarvis et al., 2003), it seems that Behavioural Beliefs, Normative Beliefs and Control Beliefs do not meet criteria number two, three and four. For the second criteria, indicators should be interchangeable. However, the indicators in Behavioural Beliefs, Normative Beliefs and Control Beliefs tapped different facets of a construct in the context of international entrepreneurship and thus may not be interchangeable. For the third criteria, indicators are expected to co-vary with each other and a change in one indicator should be associated with changes in the

other indicators. The same reasoning as the second criteria applies here. For the fourth criteria, nomological net for the indicators should not differ and indicators are required to have the same antecedents and consequences. It is argued that even though Behavioural Beliefs, Normative Beliefs, Control Beliefs and Export Intention may have different antecedents but the consequences may be the same, which is their entrepreneurial motivation to be innovative by expanding their international market scope.

Overall, Behavioural Beliefs, Normative Beliefs and Control Beliefs are very unlikely to be formative as they are not determined by a combination of variables. Although they do not meet all the criteria perfectly, nevertheless, conceptually they should be reflective rather than formative.

After establishing the mode of measurement model as reflective, therefore, the relevant model evaluation is reliability and validity.

#### **3.4.4 Qualitative data collection**

##### **3.4.4.1 Pre-test**

Hunt *et al.* (1982) recommends the following pre-test methodology. The first series of pre-tests should be conducted by personal interview even if the questionnaire ultimately will be administered by telephone or through mail. This is because personal interviews permit the interviewer to observe respondent's reactions, hesitations, problems and other cues. Once the questionnaire is completed, the researcher probes the respondents for any potential problems with the format of the questionnaire and with individual questions. During pretesting, the researcher may also discover some potential problems in the questionnaire. Ideally, respondents for the pre-test must be as similar as possible to the



target respondents. These recommendations guided pre-test for this study.

To operationalise the items in the Theory of Planned Behaviour, Ajzen (2006) suggests formative research to identify accessible Behavioural, Normative and Control Beliefs. During pre-test, entrepreneurs were briefed about the study and then asked a series of questions developed from existing theoretical and empirical literature as previously discussed in Section 3.4.3.3. Their responses to these items were used to construct a list of modal accessible beliefs, that is, a list of the most commonly held beliefs among SME entrepreneurs. Besides discussing the relevancy of items, this researcher also endeavours to find out respondents' understanding of each item to identify errors in assumptions about their frames of reference (Schwab, 2005), whether they feel comfortable with the language used, clarity of the questions, ease of answering, where to simplify, which question or part that is tiring, time taken to answer and observing their body language. It was noted that the meaning for some items are not clear and needed further explanation.

A key result from this pre-test is pertaining to values. There are 10 dimensions of value and literature suggests four dimensions are related to entrepreneurship, which are Self-direction, Stimulation, Achievement and Power (see Chapter Two Literature Review for a detailed discussion). All participants of pre-test agreed on these four entrepreneurial values but there is no consensus on the other six values. The results lend credence to the theoretical foundation of entrepreneurial values.

The draft questionnaire was also pre-tested by soliciting experts' comments and suggestions in order to assess its content validity (Hair et al., 2006; Schwab, 2005). Expert informants are well-informed people and possess sound knowledge (Chisnall, 1992) and

include academics who possess expertise in narrow fields (Aaker, Kumar, Day, Lawley, & Steward, 2007; Churchill, 1979; Dimitratos & Plakoyiannaki, 2003). A cover letter was attached with the questionnaire which contained important information about the research, such as title, problem statement, framework, research questions and objectives. It was sent to eight senior academics and subject matter experts at University of Malaya and Taylor's University. Majority of them replied with some suggestions on how to further improve the clarity of the questionnaire. Consequently, it resulted in further changes in the design of questionnaire.

#### **3.4.4.2 Pilot test**

A questionnaire should be tested in a pilot study to determine how well the questionnaire works prior to extensive data collection (Hunt et al., 1982). There are several issues to be tested. First, length, layout, format and sequencing of items (Hunt et al., 1982). Second, the researcher probes the respondent after each item and/or at the end of the questionnaire to establish exactly how the respondent interpreted and understood each item and whether the respondent faced problems with any item (Hunt et al., 1982; Schwab, 2005). The pilot test will result in changes in the design of the final questionnaire which will eventually increase response rates, reduce missing data and obtain more valid response (Schwab, 2005). Third, pilot test can be used to pre-test data analysis procedures (Hunt et al., 1982; Schwab, 2005). In summary, pilot test is a 'dry run' of the whole research project (Hunt et al., 1982).

A questionnaire should also be pilot tested on subjects similar to targeted respondents (Schwab, 2005). Based on the results of pilot test, the questionnaire was modified and shortened. There are three versions of questionnaire, that is, English version for respondents who preferred to answer in English, Malay language version for Malay respondents and Mandarin version for Chinese-speaking respondents. A final version of the questionnaire is attached in Appendix A as suggested by Gartner (1989), Hair *et al.* (2012a) and Ringle *et al.* (2012).

#### **3.4.5 Quantitative data collection**

Any systematic research is usually preceded by an extensive data collection work (Churchill & Lewis, 1986) and researchers need to pay careful attention to methodological issues in data collection and analyses (George & Zahra, 2002).

In view of constraints on the researcher's resources with respect to both time and money, the most appropriate response-inducing strategies are assurances of anonymity, a single mailing and pre-notification (Newby, Watson, & Woodliff, 2003).

To overcome the skepticism and apprehension of SME entrepreneurs about research (Gasse, 1982), this study relied on snow-ball sampling technique, that is, recommendations by government officials, friends to reach potential respondents. In this way, respondents should have a higher level of trust towards this survey and therefore, will give more genuine responses (Fontaine & Richardson, 2005). The questionnaire was administered to entrepreneurs via survey in multiple methods such as face-to-face, fax, mail/e-mail and all responses are anonymous (Schwartz, 1992). It was administered in the mother tongue of respondents. Instructions are placed at the beginning of the

questions. For the face-to-face method, if the respondent is illiterate, the researcher will explain the questions to him or her and record the answers accordingly on the questionnaire.

#### **3.4.6 Statistical analysis techniques**

Statistical techniques are used to check the reliability of the data and of the instrument (Wortman, 1986), testing hypotheses and subsequently verification or refinement of theories (Paulin et al., 1982). Researchers should employ increasingly sophisticated statistical techniques related to the framework under investigation (Wortman, 1986). As the framework in the present study contains many variables, a multivariate technique is called for. This study adopted Structured Approach to Multivariate Model Building (Hair et al., 2006) which consists of six stages:

- Stage One is to define the research problem, objectives and multivariate technique to be used.
- Stage Two is to develop the analysis plan.
- Stage Three is to evaluate the assumptions underlying the multivariate technique.
- Stage Four is to estimate the multivariate model and assess overall model fit.
- Stage Five is to interpret the variates.
- Stage Six is to validate the multivariate model.

The analysis plan should meet the objectives and design of the research, decide on desired sample size and collect data. SPSS was used to generate descriptive statistic. Next, the most appropriate multivariate technique to be used in this study is the dependence method and the specific technique is Structural Equation Modelling (SEM) (Hair et al., 2006). A dependence technique is where a dependent variable is to be predicted or explained by independent variables (Hair et al., 2006). The primary objective of applying Structural Equation Modelling is prediction and explanation of target constructs (Hair et al., 2014). Structural Equation Modelling can provide a clearer understanding of the effects from values to Export Intention, thus testing the empirical validity of the proposed integrative framework. Furthermore, structural equation analyses can also determine the relative contributions of Behavioural Beliefs, Normative Beliefs and Control Beliefs to predict intention (Ajzen, 2006). Wortman (1986) suggests a systematic analysis of the research, initially in each sub-framework (i.e. measurement models) followed by a theoretical framework (i.e. structural model) which will exhibit the interconnectedness of the parts of the sub-framework and the sub-framework to the comprehensive framework. This suggestion is basically the idea underlying a Structural Equation Modelling analysis.

Stages Three and Four will be discussed in Chapter Four Data Analysis whereas Stages Five and Six will be discussed in Chapter Five Discussions and Conclusions.

#### **3.4.6.1 Structural Equation Modelling**

Structural Equation Modelling (SEM) is a statistical technique that test hypotheses to analyse a structural model (Byrne, 2010). SEM enables researchers to use unobservable variables indirectly measured by indicators (Hair et al., 2014). It is rigorous in validating

instruments and testing relationships between constructs (Byrne, 2010; Gefen et al., 2000). In international entrepreneurship empirical research, SEM is a popular second generation analytical method (Keupp & Gassmann, 2009).

There are two basic components in SEM: the structural model and the measurement model (Haenlein & Kaplan, 2004; Hair et al., 2014). Researchers should theoretically justify both structural relationships and measurement relationships (Jarvis et al., 2003).

The measurement model (also known as outer model in Partial Least Squares) is the relationships between constructs and their corresponding indicators (Chin, 1998), that is, whether the constructs are reflective or formative (Hair et al., 2014; Jarvis et al., 2003). In a reflective measurement model, the size of the loadings determines the extent to which indicators reflect their respective construct (Chin, 1998). In other words, the outer loadings in the measurement model serve as estimates of the relative importance or weight of the items on their respective construct. Measurement theory is measurement approaches published in prior research studies which specifies how the constructs are measured. It is also possible to modify or develop new measures using measurement development approaches as previously discussed in Section 3.4.3.1.

The structural model is the path model which relates independent to dependent variables (Hair et al., 2014). Structural theory shows the path relationships between the latent constructs in the structural model (Hair et al., 2014; Jarvis et al., 2003). The estimated path coefficients in the structural model indicate the causal relationship among all the constructs in the proposed integrative framework (Chin, 1998; Hair et al., 2014), which are the 15 hypotheses tested in this study.

### **3.4.6.2 Partial Least Squares**

Researchers need to compare and contrast different types of SEM techniques in order to select proper research designs (Gefen et al., 2000), as the misapplication of a technique may lead to misinterpretations of empirical results and eventually false conclusions (Hair et al., 2012c; Ringle et al., 2012). In general, there are two classes of SEM techniques: covariance-based techniques and variance-based (or components-based) techniques, such as Partial Least Squares (PLS) (Fornell & Bookstein, 1982; Gefen et al., 2000; Haenlein & Kaplan, 2004).

PLS is primarily used to develop theories in exploratory research and focuses on the variance explained of dependent variables (Hair et al., 2014). Even though PLS is not as popular as covariance-based SEM (CB-SEM), its application in business disciplines has been increasing over the years (Hair, Ringle, & Sarstedt, 2011; Hair et al., 2012c; Ringle et al., 2012). Please refer to Appendix B for a detailed discussion on comparing covariance-based SEM and variance-based SEM, advantages and disadvantages of PLS and statistic to report for PLS.

### **3.4.6.3 Rationale for choosing PLS**

This section will explicitly explain the specific reasons for using PLS in the present study (Hair et al., 2012a). Notwithstanding PLS as a multivariate method of choice in social science research (Rigdon, 2012), researchers need to choose the appropriate SEM technique consistent with the research objective, data characteristics and model set-up (Hair, Ringle, & Sarstedt, 2012b; Hair et al., 2012a). Besides following the guidelines for applying PLS by Hair *et al.* (2012a), this study also adopted the suggestion by Ringle et

al. (2012) pertaining to how to improve the use of PLS in future, which include informed and rigorous use, particularly when the model is complex; the suitability of the data used and reporting of sampling and other statistic; the inclusion of additional structural model evaluation criteria as well as reporting the particular procedures and the algorithmic options used.

The existing body of PLS literature suggests that there are disagreements on the ranking of reasons for using PLS, although both Hair *et al.* (2012c) and Ringle *et al.* (2012) listed the same four major reasons as shown in Table 3.15.

Table 3.15 Major reasons for using PLS

Ranking	Hair <i>et al.</i> (2012c)	Ringle <i>et al.</i> (2012)
1	Non-normal data	Small sample size
2	Formative measures	Non-normal data
3	Small sample size	Formative measures
4	Focus on prediction	Focus on prediction

The primary research objective for this study is to propose and empirically scrutinise the integration of the Values Theory and the Theory of Planned Behaviour. This objective is consistent with the primary objectives of employing PLS in existing methodological literature such as prediction, exploratory research, theory development, theory building and extension of an existing structural theory. Both theories on their own are used to predict phenomenon and this study links the two well-established models.



Many researchers concur that PLS can handle a small sample size and yet produce unbiased estimates of parameters. However, researchers are cautioned against relying on PLS to overcome small sample size (Goodhue, Lewis, & Thompson, 2012a). Although the use of PLS is popularly linked to small sample size, the average sample size as reviewed by Hair *et al.* (2012a) is large, that is, 211 and this evidence appears to suggest that PLS can cope with a much wider range of sample sizes (Hair *et al.*, 2011). PLS is also used if data are highly skewed (Hair *et al.*, 2012a) but researchers are also advised against using PLS principally because of non-normal distribution (Goodhue *et al.*, 2012a; Ringle *et al.*, 2012). In the present study, commonly known standards of collecting empirical data have been met (for example, the identification and treatment of outliers), thus PLS is suitable (Ringle *et al.*, 2012).

Finally, the reason to opt for variance-based SEM is due to model set-up or model characteristics. As discussed earlier, variance-based SEM can cope with very complex models with many constructs and many indicators. Recent literature suggests that the mean number of latent constructs ranges from 7.5 to 8.1; the mean number of inner model path relations ranges from 10.4 to 11.4; the mean number of indicators per reflective construct ranges from 3.4 to 4.0 and the mean total number of indicators in models ranges from 27.0 to 29.6 (Table 3.16). For the present study, the number of latent constructs is eight; the number of inner model path relations is 15; the mean number of indicators per reflective construct is seven and the total number of indicators in the model is 58. Overall, the proposed integrative framework for the present study is more complex than prior studies and hence variance-based SEM is warranted.

Table 3.16 Model characteristics of variance-based SEM

	Hair <i>et al.</i> (2012c)	Hair <i>et al.</i> (2012a)	Ringle <i>et al.</i> (2012)
Mean number of latent constructs	7.5	7.9	8.1
Mean number of inner model path relations	10.4	11.0	11.4
Mean number of indicators per reflective construct	3.4	4.0	3.6
Mean total number of indicators in models	27.0	29.6	27.4

#### 3.4.6.4 A systematic procedure for applying Partial Least Squares

After deciding that PLS is the most appropriate statistical technique under present circumstances, the analysis proceeded according to the systematic procedure for applying Partial Least Squares (Hair et al., 2014). The stages for applying Partial Least Squares are shown in Figure 3.

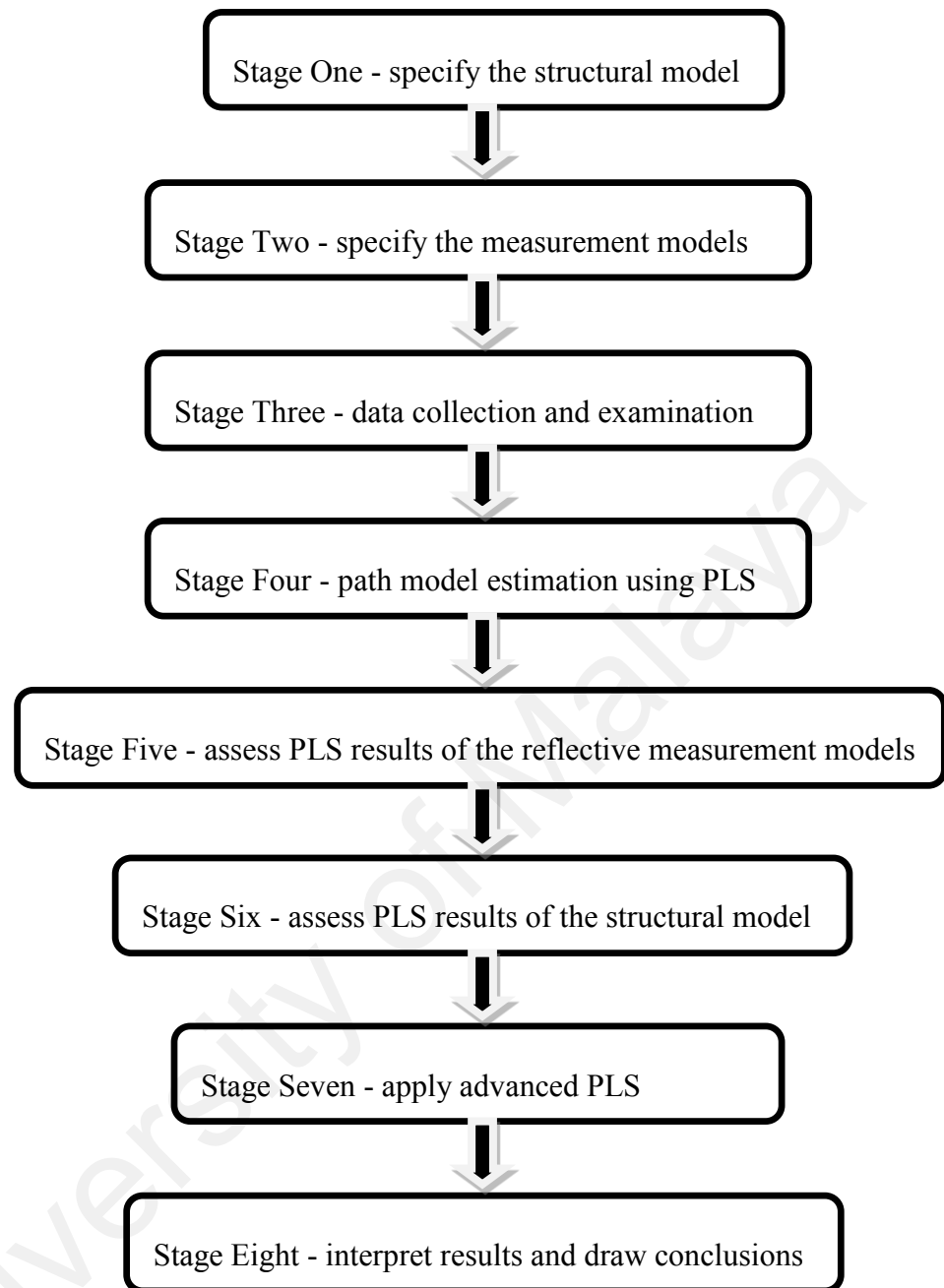


Figure 3.2 The stages for applying Partial Least Squares

The structural model or the research framework showing all inner model relations has been developed with strong theoretical underpinnings in Chapter 2 Literature Review, Section 2.9.3 (see Figure 2.19). The measurement models are specified in Chapter 4 Data Analysis after checking for factor analysis, reliability and validity of measuring instrument using data obtained from pilot test. Chapter Four Data Analysis discussed data

collection and examination, PLS path model estimation, assessment of PLS results for reflective measurement models and structural model, as well as advanced PLS analyses. Finally, Chapter 5 Discussions and Conclusions interpreted all PLS results to draw appropriate conclusions, implications and suggestions for future research.

#### **3.4.6.5 Measurement invariance**

Prior to conducting substantive cross-group comparisons, such as equivalence of structural parameter estimates, measurement invariance (also known as measurement or data equivalence) across groups must be established (Berry, 1969; Hult et al., 2008; Sarstedt, Henseler, & Ringle, 2011; Vandenberg & Lance, 2000) but measurement invariance is infrequently done (Rigdon, Ringle, & Sarstedt, 2010; Sarstedt et al., 2011; Vandenberg & Lance, 2000). This strategy of omission is known as ignoring equivalence issues (Poortinga, 1989). Measurement invariance is a very important step when comparing groups (Cheung & Rensvold, 2002). Without evidence to indicate the presence or absence of measurement invariance, the foundation for drawing scientific inference for comparison is weak and conclusions are ambiguous or invalid (Berry, 1969; Horn & McArdle, 1992; Poortinga, 1989; Vandenberg & Lance, 2000). A study found that the top three methods to show measurement invariance are reliability (55.1%), data collection procedure (52.4%) and translation equivalence (49.7%). The study concludes that the cross-cultural international business literature under-emphasises measurement invariance, leading to reduction in credibility of findings (Hult et al., 2008).

Although measurement invariance is popularly used in cross-cultural comparative studies, it is obvious that the different conditions also include measurements in different samples of subjects, such as gender, race, ability, time and etcetera.

There seems to be some shortcomings in the current body of PLS literature pertaining to multi-group analysis. For example, sometimes multi-group analysis is confused with measurement invariance (e.g. Rigdon et al., 2010; Ringle, Sarstedt, & Zimmermann, 2011) and sometimes *t*-test is used to test both measurement invariance and multi-group analysis (e.g. Eberl, 2010).

In order to compare different samples, there must be comparability in the first place. At the abstract level, construct comparability demands that test scores from different groups measure the same construct of interest on the same metric (Wu, Li, & Zumbo, 2007). At the operational level, a latent variable is a statistical and mathematical variable whose score is calculated by responses to measurement scales (Wu et al., 2007). Construct comparability is a notion broader than measurement invariance (Wu et al., 2007).

Measurement invariance is also known as measurement equivalence (ME/I). It is defined as “whether or not, under different conditions of observing and studying phenomena, measurement operations yield measures of the same attribute” (Horn & McArdle, 1992, p. 117). In other words, measurement invariance is supported when the same attribute is measured under different conditions. To ensure measurement invariance across groups, it is necessary that the same construct is being measured and the measurement metric is the same (Poortinga, 1989), that is, the measurement model linking the observed indicators to the latent variable be equal across groups (Wu et al.,

2007). Measurement invariance is also applicable to within country studies of diverse ethnic groups (Davidov et al., 2008).

There are different forms of measurement invariance to be tested depending on the purpose of the study (Steenkamp & Baumgartner, 1998). Even though some current PLS literature mentioned measurement invariance but they did not distinguish its different forms (e.g. Eberl, 2010; Ringle et al., 2011; Sarstedt et al., 2011). This distinction is crucial for two reasons. Firstly, different research purposes will require different forms of measurement invariance (Steenkamp & Baumgartner, 1998) and secondly, there are different tests for different forms of measurement invariance. As such, some researchers report measurement invariance which relied on satisfactory reliability and validity in both sub-groups (e.g. Chin & Dibbern, 2010; Ringle et al., 2011), other researchers are uncertain about which form of measurement invariance is actually being tested.

Overall, there are two levels of invariance, that is, measurement model level and structural model level (Byrne, 2010; Wu et al., 2007). The measurement model level is the psychometric properties of the measurement scales which includes configural invariance, metric invariance, scalar invariance and measurement error invariance. The structural model level involves between-group differences in the structural model, that is, the invariance of factor mean and factor variance-covariance structures.

Configural invariance (also called factor structure equivalence) tests the null hypothesis that the items comprising the measurement instrument exhibit the same configuration of salient and non-salient factor loadings across different groups (Steenkamp & Baumgartner, 1998). In other words, the same measurement model (number of items and the factor-loading pattern) should apply across groups so that

respondents from different groups employ the same conceptual framework to answer the test items (Byrne, 2010; Wu et al., 2007). Configural invariance is supported if the hypothesised model fits the data well in all groups, all salient factor loadings are significant and the factors demonstrate discriminant validity (Hong, Malik, & Lee, 2003; Steenkamp & Baumgartner, 1998). This is the baseline model with which all other models will be compared. However, if the null hypothesis is rejected (i.e., the constructs being measured differ across groups), tests of group differences are untenable (Vandenberg & Lance, 2000).

Metric invariance (also called weak invariance) means whether people in different groups respond to the items in the same way (Steenkamp & Baumgartner, 1998), that is, equivalence of the meaning of constructs (Davidov et al., 2008) or equivalent calibration of measures of constructs to the true score across groups (Vandenberg, 2002; Vandenberg & Lance, 2000). It is a stronger test of invariance incorporating the concept of equal metrics or scale intervals across groups. Full or partial metric invariance is required if the aim is to compare the differences in path coefficients across groups (Hong et al., 2003; Steenkamp & Baumgartner, 1998). Test of metric invariance can only be conducted when configural invariance is supported (Vandenberg, 2002; Vandenberg & Lance, 2000). To test for metric invariance, the factor loadings are constrained to be the same across groups (Hong et al., 2003; Steenkamp & Baumgartner, 1998; Vandenberg & Lance, 2000), and evaluate whether this model has equally strong fit to the data relative to a model in which the factor loadings are freely estimated (i.e., the configural invariance model) (Vandenberg, 2002; Vandenberg & Lance, 2000).

Scalar invariance (also called strong invariance) denotes that cross-group differences in the factor means are due to differences in the means of the underlying constructs (Steenkamp & Baumgartner, 1998). Scalar invariance requires the cross-group equality in the loadings and intercepts (Steenkamp & Baumgartner, 1998; Wu et al., 2007) and is a necessary condition to compare means across groups (Byrne, 2010; Davidov et al., 2008; Hair et al., 2006; Steenkamp & Baumgartner, 1998).

Measurement error (also called error variance or strict) invariance is the amount of measurement error that is invariant across groups (Steenkamp & Baumgartner, 1998). Measurement error invariance requires cross-group equality in the loadings, intercepts and residual variances (Steenkamp & Baumgartner, 1998; Wu et al., 2007). Table 3.17 summarises the four types of measurement invariance with respect to measurement model.



Table 3.17 Types of invariance and its testing procedures

Level and type of invariance	Purpose(s)	Testing procedures
Level 1 Configural - equivalence configuration of factor loadings across groups	<ol style="list-style-type: none"> <li>1. To ensure that the same items measure each construct in all groups, that is, measurement model is invariant across groups</li> <li>2. Serve as the baseline model</li> </ol>	<ol style="list-style-type: none"> <li>1. Constrain the items in an instrument to have the same configuration of loadings across groups.</li> <li>2. Configural invariance is supported if: <ol style="list-style-type: none"> <li>a. the hypothesised model fits the data well in all groups</li> <li>b. all salient factor loadings are significant</li> <li>c. all factors demonstrate discriminant validity</li> </ol> </li> </ol>
Level 2 Metric - equivalence of the meaning of constructs across groups	<ol style="list-style-type: none"> <li>1. To compare the differences in item scores / path coefficients across groups</li> </ol>	<ol style="list-style-type: none"> <li>1. Pre-requisite is configural invariance</li> <li>2. Cross-group equality in the loadings, that is, constrain the factor loading of each item on its corresponding latent variable to be equal across groups.</li> <li>3. Test the fit of the model to the data.</li> </ol>
Level 3 Scalar - Cross-group differences in latent variable means are due to differences in the means of their corresponding constructs.	<ol style="list-style-type: none"> <li>1. A pre-condition for comparing construct means across groups.</li> </ol>	<ol style="list-style-type: none"> <li>1. Pre-requisites are configural and metric invariance</li> <li>2. Cross-group equality in the intercepts, that is, constrain the intercepts of the items to be equal across groups.</li> <li>3. Test the fit of the model to the data.</li> </ol>
Level 4 Measurement error - the amount of measurement error is invariant across groups	<ol style="list-style-type: none"> <li>1. To ensure that items are equally reliable across groups</li> </ol>	<ol style="list-style-type: none"> <li>1. Pre-requisites are configural, metric and scalar invariance</li> <li>2. Constrain the residual variances of the items to be equal across groups.</li> <li>3. Test the fit of the model to the data.</li> </ol>

Notwithstanding the preceding discussion, there is a lack of consensus in the literature regarding the necessity to test all four types of measurement invariance with respect to measurement model, especially the measurement error invariance (Byrne, 2010; Cheung & Rensvold, 2002; Vandenberg & Lance, 2000; Wu et al., 2007). As such, this study adopted the suggestions to link types of invariance to the goals of the study (Steenkamp & Baumgartner, 1998).

When measurements are specified as linear combinations (as in the present study), tests of measurement invariance are equivalent to tests of factor invariance (Horn & McArdle, 1992) which emphasises the correspondence of factors across different groups in the same study, in different studies or in sub-groups from the same sample (Byrne, Shavelson, & Muthén, 1989).

Measurement invariance is usually tested using multi-group Confirmatory Factor Analysis (MG-CFA) (Byrne, 2010; Cheung & Rensvold, 2002; Hair et al., 2006; Wu et al., 2007) as it is the most powerful (Davidov et al., 2008; Steenkamp & Baumgartner, 1998) and versatile approach (Steenkamp & Baumgartner, 1998).

MG-CFA involves a sequence of hypothesis tests of nested models starting with the unconstrained configural model and increasingly imposing more cross group equality constraints on a measurement model. The change in the goodness-of-fit index resulting from these constraints is then examined (Byrne, 2010; Cheung & Rensvold, 2002; Wu et al., 2007). For practical purposes, a change in the value of Comparative Fit Index ( $\Delta CFI$ ) which is smaller than or equal to  $-0.01$  is interpreted to mean that the null hypothesis of invariance should not be rejected (Cheung & Rensvold, 2002). In MG-CFA, more

stringent tests of measurement invariance will proceed only if the less stringent measurement invariance is not rejected (Byrne, 2010; Wu et al., 2007).

Unfortunately, at this juncture SmartPLS statistical package cannot test for measurement invariance. Consequently, this study has to test measurement invariance using multi-group Confirmatory Factor Analysis (MG-CFA) in AMOS. The practice of using PLS and AMOS in a single study has been practiced before (see Hsieh, Rai, & Keil, 2008).

### **3.5 Conclusions**

A proper research methodology will extend scientific inquiry into entrepreneurship, which in turn has the potential to inform theory, practice and policy. Entrepreneurship needs research that is theoretically grounded, innovative (or entrepreneurial) and methodologically rigorous (Carland et al., 1988; Carsrud et al., 1986; Davidsson et al., 2001; Low & MacMillan, 1988; Zahra & Dess, 2001).

Scientific rigour in a research can be achieved by clearly defining the variables and carefully choosing the appropriate design alternatives after considering the specific purpose of the study (Cavana et al., 2001). However, there is a trade-off between rigour and cost consideration which will have to be explicitly stated (Cavana et al., 2001). Furthermore, a better method that is feasible within the constraints will improve the validity of research findings (Paulin et al., 1982).

This chapter outlined the research paradigm and all the important research design employed for this study. The research design selected is rigorous and addressed all the important issues for a scientific investigation. Major measure development literature provided guidelines to develop the instrument to collect data. The statistical technique of Structural Equation Modelling – Partial Least Squares used in this study is still relatively less popular vis-à-vis covariance-based Structural Equation Modelling. Therefore, this chapter provides an overview of this statistical technique, its advantages and disadvantages as well as guidelines for its use in Appendix B. With the extensive review in discipline-specific and methodology literature in place, the next chapter explains data analysis in detail.

## **CHAPTER 4**

### **DATA ANALYSIS AND RESULTS**

#### **4.1 Introduction**

The research methodology of this study was discussed at length in Chapter Three whereas this chapter reports the data analysis and results. Overall, this chapter consists of four parts. Part One deals with qualitative analysis. Part Two reports the results of the pilot test. Part Three contains the quantitative analysis of the main study and Part Four deals with the issue of heterogeneity. The reporting of the main study and heterogeneity are in line with the systematic procedures of applying Partial Least Squares. This chapter ends with conclusions. The research conducted fulfilled the research ethics as set out by the University of Malaya.

#### **4.2 Part One - Interviews**

Due to the entrepreneurs' work schedule and their disperse locations, it is very difficult to meet them individually and impossible to gather all of them at the same place at the same time to conduct focus group discussion. As such, pre-test in the form of interviews were conducted on eight SME entrepreneurs as suggested by Hunt et al. (1982) and Smith et al. (1989). Additionally, this study has strong theoretical support for the proposed integrative framework coupled with pre-test with subject experts.

##### **4.2.1 Dimensions of value related to entrepreneurship**

Almost all participants agreed on the four entrepreneurial dimensions of power, achievement, stimulation and self-direction. As such, all dimensions were retained for next stage.

#### **4.2.2 Items in the Theory of Planned Behaviour**

Ajzen (2006) suggests formative research or pilot test to identify accessible Behavioural, Normative and Control Beliefs in order to construct a list of modal salient beliefs which serves as the basis for the Theory of Planned Behaviour questionnaire. Hence, beliefs related to export in addition to literature are elicited from this group of SME entrepreneurs. All items will be validated prior to construction of the final questionnaire.

##### **4.2.2.1 Behavioural Belief Strength**

Most participants agreed with the benefits of export listed. Nevertheless, two participants disagreed with the statement on Excess Production Capacity. Because SMEs are unlikely to have Excess Production Capacity due to their limited resources, therefore, this item will be deleted for the next stage.

##### **4.2.2.2 Normative Belief Strength**

The responses to this section are diverse, which is to be expected as the referents for different participants may be very different. However, there is no item that all participants disagreed on. As such, in order to identify all the potential salient normative influences in the main study, all the items will be retained for the next stage. Additionally, several entrepreneurs suggested Government and SME Associations to be included.

#### **4.2.2.3 Control Belief Strength**

From the participants' responses to this section, most entrepreneurs agreed that all the resources listed can facilitate export in the future. There was no suggestion for other resources. Again, to identify all the potential salient control belief strengths in the main study, all the items will be retained for the next stage. The findings from the focus groups are summarised in Appendix 3 Table 1.

#### **4.3 Part Two - Pilot Test**

The purposes of the pilot test conducted in this study are to identify and eliminate potential problems and to reduce the number of items of the measurements. The aspects tested include content of question, wording, sequence, form and layout, question difficulty and instructions (Malhotra, 2010).

The value items used in the current study is a validated instrument; hence, it is excluded from the pilot test. The Export Intention items are drawn from current literature whereas belief items will be expanded on the basis of focus group outcomes and further literature review. Consequently, three items, namely, Learn From Export Experience, Stretch Limited Resources and Trade Barriers were deleted from the questionnaire. Based on inputs from experts, all items under Outcome Evaluation and Control Belief Power have been deleted because the answers to these items are most likely to be positive. This deletion will also significantly reduce the number of items, which in turn increase response rate as well as response accuracy.

The revised questionnaire was pilot tested on 30 SME entrepreneurs drawn from the same population as the actual survey (Schwab, 2005) to test reliability and validity for items in the Theory of Planned Behaviour as well as to reduce the number of questions in the final questionnaire. The environment and context of administration of the pilot questionnaire are similar to that of the actual survey (Malhotra, 2010). For example, participants can opt to answer in the Malay Language, English or Mandarin.

Virtually all participants gave Outcome Evaluation under Behavioural Beliefs and Control Belief Power under Perceived Behavioural Control uniformly positive ratings with some respondents commenting that these questions are redundant. Subsequently, this issue was discussed with an expert in the Theory of Planned Behaviour and she suggested that all items for Outcome Evaluation and Control Belief Power to be excluded in the final questionnaire. The benefit for this exclusion is threefold. First, it is assumed that all the benefits of export should be positive and all the items in Control Belief Power should facilitate export on a theoretical ground. Asking respondents to evaluate the benefits from export as bad and items in Control Belief Power as impeding export can be irritating (Ajzen, 2006). Second, it can avoid confusion to respondents that the items in Behavioural Belief Strength and Outcome Evaluation as well as Control Belief Strength and Control Belief Power are similar although they are different theoretically. Third, the number of items will be reduced substantially and this reduction should improve response rate and accuracy.

The dropping of these two constructs should not affect the belief composite measures for Behavioural Beliefs (which is  $\sum b_i e_i$  - see Chapter Three Research Methodology Section 3.4.3.3) and Perceived Behavioural Control (which is  $\sum c_i p_i$  - see Chapter Three



Research Methodology Section 3.4.3.3) as 'e<sub>i</sub>' and 'p<sub>i</sub>' can be assumed equal to one, which means export is extremely good and items in Control Belief Power make export much easier (e.g. if the Behavioural Belief Strength is 1 and the Outcome Evaluation is 1, the product is still 1). The expert in the Theory of Planned Behaviour also suggests four intention items which are 'make an effort', 'try', 'plan' and 'intend' for the final questionnaire. Normative Beliefs is more adequately measured by the summation of Normative Belief Strength multiplied by Motivation to Comply (Linan & Chen, 2009), that is,  $\sum c_i p_i$ .

The pilot test participants did not report any major problem encountered in answering the questionnaire. The data collected from the pilot test are analysed and presented in Appendix C Table 2. The means and standard deviations for all items are at an acceptable level. It is noted that Excess Production Capacity has a higher mean, indicating that participants tend to disagree with this item, which should be considered for exclusion from the final questionnaire. The higher mean and standard deviation for Normative Beliefs items are due to the product of Normative Belief Strength and Motivation to Comply (i.e. Normative Beliefs = Normative Belief Strength x Motivation to Comply). The higher standard deviations again are expected as the referents for different participants may be very different. These results are consistent with the focus group results in Section 4.2. However, a majority of items are not normally distributed as signalled by their skewness and kurtosis.

Post pilot test, further improvements were made to the questionnaire. Descriptions are added to all items wherever necessary to make the meaning clearer. 'Likely' is deleted from Export Intention because there are sufficient items and the mean for this item is on

the low side (note: higher value denotes lower export intention). 'Excess production capacity' is deleted as this is rather unusual for SMEs. New items such as 'Parents', 'Network members', 'Peers', 'SME Associations' and 'Government' are added. 'Mentor(s)' is combined with 'Advisor(s)', after which it is split into 'Spiritual' and 'Business Mentor(s)/Advisor(s)'. After these improvements, the questionnaire is ready for actual survey. The final questionnaire consists of 70 items: 14 Values items, four Export Intention items, five Behavioural Belief Strength items, 11 Control Belief Strength items, 24 Normative Beliefs items and 12 demographic items.

#### **4.4 Part Three – Main Study**

Using the items in the final questionnaire designed to measure constructs in the proposed integrative framework, data were drawn from 244 small and medium-sized entrepreneurs and subsequently entered into SPSS. The next step is the time-consuming, but necessary, initial step of data examination prior to conducting any analysis (Hair et al., 2006).

##### **4.4.1 Preparing for a multivariate analysis**

###### **4.4.1.1 Data examination**

Outliers are an unusually high or low value on a variable or a unique combination of values across several variables (Hair et al., 2006; Hair et al., 2014). Outliers are undesirable because they may excessively influence the multivariate parameter estimates. To test for outliers, this study relied on Tests for normality and outliers function in AMOS. From the output, reading the p1 value from Observations farthest from the centroid (Mahalanobis distance), values which are less than 0.05 are identified as outliers for each

construct. Next is the cross-tabulation of the construct and respondent number to see how many outliers are attributed to each respondent (Please refer to Appendix 3 Tables 3.1 to 3.10).

It was found that respondent Number 158 has five outliers out of eight constructs in the proposed integrative framework. The responses to Self-direction items were inconsistent; only one scale was used for all responses indexing Stimulation; all responses to Intention questions used 5 and 9 only; majority of responses to Control Belief Strength items were 6 and 9; majority of responses to Normative Belief Strength were 4 and 9. This outlier also does not constitute a distinct and unique subgroup (Hair et al., 2014). Consequently, respondent Number 158 was removed from subsequent analysis and the final number of respondents became 243.

#### **4.4.1.2 Exploratory factor analysis**

There is no prior empirical evidence on the extent to which the items designed to measure constructs in the Theory of Planned Behaviour in the context of export by SMEs are related to the intended constructs. Consequently, an exploratory factor analysis (EFA) is conducted in order to empirically determine how and to what extent the items are related to the intended constructs (Byrne, 2010; Hair et al., 2014). The minimum sample size to conduct EFA should be more than 100 (Hair, Black, Babin, & Anderson, 2010).

Kaiser-Meyer-Olkin (KMO) is 0.8, indicating that factor analysis is appropriate (Malhotra, 2010). Additionally, Bartlett's test of sphericity is significant; thus, the hypothesis that the variables are uncorrelated in the population is rejected (Malhotra, 2010). Ideally, items theorised under a construct should have high loadings on that

construct (Byrne, 2010). In verifying the number of dimensions captured by the data, this study specified the number of factors to be extracted, that is, a priori determination of number of factors (Malhotra, 2010). The number of dimensions was fixed from a maximum of 13 to a minimum of six. It was found that the rotated factor matrix using principal axis factoring (to identify the underlying dimensions for all items) and rotation method of Varimax (this study assumes that constructs in the Values Theory and the Theory of Planned Behaviour are uncorrelated) with seven dimensions yielded the best result consistent with theories. For example, the four dimensions of values are grouped as one factor; all items under intention are grouped under one factor; it is the same situation for Behavioural Belief Strength and Control Belief Strength. However, there are three factors under Normative Beliefs, the first factor can be labelled as Family Members and Friends; the second factor can be labelled as Mentor and Role Model; the third factor can be labelled as SME Associations and Government. The EFA results show that each item loads highly on only one factor (i.e. loadings  $> 0.4$ ) (Hair et al., 2006). Thus, EFA verified that all sets of variables have the conceptual foundation (Hair et al., 2010).

#### **4.4.1.3 Testing the assumptions**

The final step in examining the data is to test both statistical and conceptual assumptions underlying the multivariate technique (Hair et al., 2006). Any violation of assumptions fundamental to multivariate techniques will have implications for the estimation process. The assumptions underlying the statistical techniques are tested for the univariate and multivariate (Hair et al., 2006). Due to space constraint results for univariate are not

shown. The three statistical assumptions relevant to this study are normality, homoscedasticity (equality of variances) and uncorrelated errors.

Normality is the most fundamental assumption in multivariate analysis. Hair *et al.* (2006) recommend both statistical tests and graphical plots to check the normality of data. As such, two different methods are used: first is assessment of normality in AMOS and second is QQ plots in SPSS. QQ plots for all the constructs are found in Appendix 2. The two multivariate normality tests are summarised in Table 4.1.

Table 4.1 Summary of multivariate normality tests

Method	Self-direction	Stimulation	Achievement	Power	Export Intention	Behavioural Belief Strength	Control Belief Strength	Normative Belief Strength	Motivation to Comply
AMOS	7.788*	1.827	5.151*	-0.484	106.895*	42.927*	137.999*	82.803*	84.651*
QQ plot (visual)	Normal	Normal	Non-normal	Normal	Non-normal	Non-normal	Non-normal	Non-normal	Non-normal

Note: \* – non-normal

Both methods showed that not all constructs are normally distributed. The conclusion is that the important assumption of normality is violated and consequently a distribution-free method such as Partial Least Squares is warranted for further analysis. Non-normality usually contributes to other assumption violations.

Homoscedasticity (also known as homogeneity of variance) is the assumption that dependent variable possesses equal levels of variance across the different values of the independent variable. If the variance of the dependent variable is unequal across different values of the independent variable, then the relationship is heteroscedastic. Heteroscedasticity will cause the predictions to be better at some levels of the independent

variable but worse at other levels (Hair et al., 2006). Heteroscedasticity is one of the most common assumption violations (Hair et al., 2006). This study uses Levene's test to diagnose homoscedasticity and the outcomes are depicted in Table 4.2.

Table 4.2 Levene's test for homoscedasticity

Independent variable	Dependent variable			
	Behavioural Belief Strength	Normative Beliefs	Control Belief Strength	Export Intention
Self-direction - Mean of raw rating	0.008*	0.275	0.849	-
Stimulation - Mean of raw rating	0.001*	0.000*	0.710	-
Achievement - Mean of raw rating	0.000*	0.033*	0.944	-
Power - Mean of raw rating	0.555	0.003*	0.001*	-
Behavioural Belief Strength	-	-	-	0.000*
Normative Beliefs	-	-	-	0.000*
Control Belief Strength	-	-	-	0.000*

Note: \* – Heteroscedastic

Heteroscedasticity is normally due to variable type as well as skewed distribution of one or both variables (Hair et al., 2006). The most likely source of heteroscedasticity in this research is the skewed distribution of variables as can be seen in normality tests discussed in the preceding section. From Table 4.2 above, it is obvious that the relationships between independent and dependent variables in the present study are a mixture of homoscedastic and heteroscedastic.

In multivariate analysis, data is usually analysed in aggregate. As a result, the combined effect produces biased results because of an unspecified factor, that is, a factor not included in the analysis (Hair et al., 2006), such as demographic factors. The most common remedy for correlated errors is to use the omitted factor to separate the data into groups and then analyse the groups separately so that the effects are constant within each group (Hair et al., 2006). This statistical assumption is similar to moderation effect of observed and unobserved heterogeneity which will be discussed in Section 4.4.10.

#### **4.4.2 Descriptive statistic (univariate and bivariate analysis)**

Subsequent to testing underlying assumptions, it was determined that the most suitable statistical technique to be used is Partial Least Squares (PLS). Therefore, the next stage is to use PLS to estimate the multivariate model and report the statistic as outlined in Appendix B. SPSS was applied to data collected to identify the characteristics of the sample (Carland et al., 1988).

From Table 4.3, most of the SMEs surveyed are either sole proprietor or majority owner. The respondents consist of 70% male and majority of them are aged between 30 to 59-years old. In terms of race composition, Malays made up 44% and Chinese 53%. 41% of respondents reported having tertiary education level. 66% of them are currently exporting.

Table 4.3 Descriptive statistic for aggregate sample

Variable	Category	Frequency	Percentage
Ownership	Sole proprietor	97	39.9
	Majority owner	70	28.8
	Equal partnership	54	22.2
	Minority owner	22	9.1
	<b>Total</b>	<b>243</b>	<b>100.0</b>
Gender	Male	168	69.1
	Female	75	30.9
	<b>Total</b>	<b>243</b>	<b>100.0</b>
Age	below 30 years-old	42	17.3
	30 to 39 years-old	67	27.6
	40 to 49 years-old	71	29.2
	50 to 59 years-old	50	20.6
	60 years-old and above	13	5.3
	<b>Total</b>	<b>243</b>	<b>100.0</b>
Ethnicity	Malays	108	44.4
	Chinese	135	55.6
	<b>Total</b>	<b>243</b>	<b>100.0</b>
Education level	Primary	6	2.5
	Secondary	57	23.5
	Tertiary	101	41.5
	Vocational or technical	4	1.6
	Professional qualification	40	16.5
	Post-graduate	30	12.3
	Others	5	2.1
	<b>Total</b>	<b>243</b>	<b>100.0</b>
Current exporting status	Exporter	161	66.3
	Non-exporter	80	32.9
	Missing Value	2	0.8
	<b>Total</b>	<b>243</b>	<b>100.0</b>

The means and standard deviations for all constructs are shown in Table 4.4. Mean value for each value type is computed by averaging the scores for items indexing that value type and is labelled as ‘value type – mean of raw rating’. The standard deviations of the 16 value items ranged from 1.06 to 1.36, which is better than the expected range of 0.98 to 1.37 (Schwartz, 2003) and thus, indicates sufficient variance. The higher mean



for Normative Beliefs is due to the product of Normative Belief Strength and Motivation to Comply.

Table 4.4 Means and standard deviations for aggregate sample

Construct	Mean	Standard deviation
1. Self-direction - Mean of raw rating	2.21	0.79
2. Stimulation - Mean of raw rating	2.72	1.01
3. Achievement - Mean of raw rating	2.56	0.91
4. Power - Mean of raw rating	2.91	0.97
5. Behavioural Belief Strength	1.59	0.59
6. Normative Beliefs	8.27	7.22
7. Control Belief Strength	1.85	0.65
8. Export Intention	1.32	0.62

To obtain some ideas of the relationships between exogenous and endogenous constructs and for a preliminary test for collinearity, the correlation matrix is scrutinised. From the correlation matrix in Table 4.5, the bivariate correlations between values are all significant as theorised by Schwartz. The strongest correlation is between achievement and power ( $r = 0.633$ ) and the weakest is between stimulation and power ( $r = 0.447$ ). The strength of the correlation is according to the theoretical model of structure of relations among value constructs, where higher correlations represent values that are adjacent in the value circle of the Schwartz theory (Schwartz, 1994; Schwartz et al., 2001) (see Figure 2.3 in Chapter Two Literature Review Section 2.7.3). Moreover, Self-direction is nearer to Stimulation ( $r = 0.564$ ) than Power ( $r = 0.509$ ) and Stimulation is nearer to Achievement ( $r = 0.551$ ) than Power ( $r = 0.447$ ). Thus, the results demonstrate nomological validity except between Self-direction and Achievement as well as between Self-direction and Power.

At the same time, the four value dimensions have various degrees of correlations with constructs in the Theory of Planned Behaviour. Self-direction is correlated with Behavioural Belief Strength and Control Belief Strength; Stimulation is correlated with all the four Belief Constructs; Achievement is correlated with Behavioural Belief Strength, Normative Belief Strength and Motivation to Comply; Power is correlated with Control Belief Strength, Normative Belief Strength and Motivation to Comply.

The bivariate correlations between Export Intention and Behavioural Belief Strength, Control Belief Strength, Normative Belief Strength and Motivation to Comply are all significant. The correlation between Export Intention and Behavioural Belief Strength is the strongest. The significant bivariate correlations among Behavioural Belief Strength, Control Belief Strength and Normative Belief Strength/Motivation to Comply are consonant with the Theory of Planned Behaviour. Moreover, the high correlation between Normative Belief Strength and Motivation to Comply is expected as both constructs combined theoretically to measure Normative Beliefs. There is no multi-collinearity as all correlations between predictors are less than 0.9 (Field, 2009). As there seems to be nothing unusual about the patterns of correlations between constructs, therefore, analysis will proceed further.

Table 4.5 Construct bivariate correlation matrix for aggregate sample

Construct	1	2	3	4	5	6	7	8	9
1. Self-direction - Mean of raw rating	<b>1</b>								
2. Stimulation - Mean of raw rating	.564***	<b>1</b>							
3. Achievement - Mean of raw rating	.503***	.551***	<b>1</b>						
4. Power - Mean of raw rating	.509***	.447***	.633***	<b>1</b>					
5. Export Intention	.061	.111	.060	.078	<b>1</b>				
6. Behavioural Belief Strength	.170***	.256***	.138**	.095	.503***	<b>1</b>			
7. Control Belief Strength	.155**	.240***	.116	.140**	.410***	.448***	<b>1</b>		
8. Normative Belief Strength	.084	.312***	.224***	.186***	.302***	.367***	.359***	<b>1</b>	
9. Motivation to Comply	.019	.203***	.192***	.146**	.232***	.269***	.223***	.810***	<b>1</b>

Notes: \*\*\* Significant at 0.01 level (2 tailed), \*\* Significant at 0.05 level (2-tailed)

#### 4.4.3 Ranking of entrepreneurial values

Values function as a system and therefore, it is necessary to take into consideration the importance of a value type relative to the individual's other value types. Ranking of values in entrepreneurship was practised by Fagenson (1993), Davidsson (1995), Morris and Schindehutte (2005) and Noseleit (2010). Schwartz (2003, 2007) suggests scale use correction procedure for differences in individual use of the Portrait Value Questionnaire by converting absolute value scores into scores reflecting the relative ranking or importance of each value type, that is, the individual's value priorities.

The mean for the items indexing each value (that is, 'value type - mean of raw rating'), has been calculated in Table 4.2 Section 4.4.2. The first step for correction is to compute MRAT which is the mean score on the 16 answered value items. The second

step is to deduct MRAT from each ‘value type – mean of raw rating’ to obtain the corrected mean, labelled as ‘value-type – Centred value score’. In this study, values are measured via the 6-point Likert scale, with 1 meaning ‘*very much like me*’ and 6 meaning ‘*not like me at all*’. According to Schwartz in a personal communication, negative Centred value score means that the value type is above the average of all other value types and positive means below. In other words, smaller numerical Centred value score is interpreted as higher ranking. Out of the four value types, only Self-direction and Achievement have negative signs, meaning these two value types are above the average values for the aggregate sample (see Table 4.6). The findings on the rankings of entrepreneurial values are in line with Noseleit’s (2010).

Table 4.6 Centred value score and ranking of value types for aggregate sample

Value type - Centred value score	Mean	Standard deviation	Ranking
Self-direction	-0.36	0.49	1
Achievement	-0.01	0.48	2
Stimulation	0.15	0.63	3
Power	0.34	0.59	4

#### 4.4.4 Reliability and validity

Section 4.4.1.3 discussed the rationale and justifications for the use of PLS to analyse the proposed integrative framework. From this section onwards, results generated by the SMARTPLS software will be presented.

Similar to covariance-based SEM (CB - SEM) method, when using PLS, the measurement models’ psychometric characteristics have to be assessed first and those items that are unacceptable deleted (Hair et al., 2011). For reflective measurement model

as used in the present study, the assessment involves reliability and validity as a prerequisite to interpret structural model estimates (Hair et al., 2012c).

In covariance-based SEM, Confirmatory Factor Analysis (CFA) is based on theory or empirical research or both, to postulate a priori relations between the observed measures and the underlying factors in a measurement model (Byrne, 2010). In other words, this means the number of factors and which item will load highly on which factor (Hair et al., 2006). CFA tests this hypothesised structure statistically in terms of how well the model matches the actual data (Byrne, 2010; Hair et al., 2006). In contrast, Partial Least Squares examines both the standardised item loading on the construct (read from the second column 'Original Sample' in Table 4.6) as well as its significance from bootstrapping procedure (read from the last column '*T* Statistics' in Table 4.6). For an item to be retained, the standardised item loading must be equal or more than 0.70 and the *t* statistic must be equal or more than 1.96 for a significant level of 0.05 (Please refer to Appendix 3 Table 8).

In Table 4.7 below, the following items have been deleted from their respective constructs due to unsatisfactory factor loading of  $< 0.7$  on their respective constructs: B1 'Overcome unfavorable domestic market condition'; C4 'Resources' and C11 'International Experience'; SN1 'Family', SN2 'Parents', SN3 'Friend(s)', SN5 'Peers' and SN9 'Business partner(s)'; V2 'Power1'; V4 'Achievement1'; V11 'Self-direction2' and V34 'Self-direction4'. As previously discussed in Appendix B, there is no adequate global measure of goodness of model fit in Partial Least Squares (Hair et al., 2014; Hair et al., 2011). Moreover, with the deletion of some value items, the final number of items for Power and Self-direction constructs is two each and this is acceptable in Partial Least

Squares (Chin, 1998; Hair et al., 2010; Hair et al., 2014).

Table 4.7 Indicator reliability

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B2 <- Behavioural Belief Strength	0.7	0.06	11.46
B3 <- Behavioural Belief Strength	0.8	0.03	26.58
B4 <- Behavioural Belief Strength	0.8	0.03	29.95
B5 <- Behavioural Belief Strength	0.9	0.02	41.14
C1 <- Control Belief Strength	0.8	0.05	16.83
C10 <- Control Belief Strength	0.7	0.06	11.23
C2 <- Control Belief Strength	0.7	0.04	17.99
C3 <- Control Belief Strength	0.7	0.05	12.62
C5 <- Control Belief Strength	0.8	0.04	19.60
C6 <- Control Belief Strength	0.7	0.06	10.91
C7 <- Control Belief Strength	0.8	0.04	22.06
C8 <- Control Belief Strength	0.7	0.05	12.64
C9 <- Control Belief Strength	0.8	0.04	22.09
I1 <- Export Intention	0.9	0.02	47.25
I2 <- Export Intention	0.9	0.02	57.59
I3 <- Export Intention	0.9	0.02	55.65
I4 <- Export Intention	0.9	0.04	21.86
SN10 <- Normative Beliefs	0.7	0.06	10.96
SN11 <- Normative Beliefs	0.8	0.04	20.97
SN12 <- Normative Beliefs	0.7	0.06	12.85
SN4 <- Normative Beliefs	0.7	0.06	10.68
SN6 <- Normative Beliefs	0.8	0.05	15.90
SN7 <- Normative Beliefs	0.8	0.04	19.30
SN8 <- Normative Beliefs	0.8	0.04	19.44
V1 <- Self-direction	0.9	0.03	29.82
V13 <- Achievement	0.7	0.12	5.41
V15 <- Stimulation	0.8	0.04	21.06
V17 <- Power	0.8	0.10	8.04
V22 <- Self-direction	0.8	0.08	10.00
V24 <- Achievement	0.8	0.07	10.96
V30 <- Stimulation	0.8	0.05	17.30
V32 <- Achievement	0.9	0.08	11.31
V39 <- Power	0.9	0.03	28.29
V6 <- Stimulation	0.8	0.03	27.30

#### 4.4.4.1 Reliability

The assessment of the reliability of measurement models yielded satisfactory results as the composite reliability for all constructs is above 0.8. The reliability for value constructs is better than some previous studies (Table 4.8 columns three and four) and there is no comparison for constructs in the Theory of Planned Behaviour as there was no similar prior study. All the average variance extracted figures are above the threshold of 0.5, indicating reliability for all constructs in the proposed integrative framework (Table 4.8 column five).

Table 4.8 Composite reliability and convergent validity

Construct	Composite reliability	Cronbach's alpha (Schwartz et al., 2001)	Cronbach's alpha (Adams et al., 2008)	Average variance extracted (AVE)
Self-direction	0.83	0.53	0.63	0.72
Stimulation	0.85	0.76	0.74	0.66
Achievement	0.83	0.52	0.79	0.62
Power	0.87	0.50	0.59	0.76
Behavioural Belief Strength	0.88	No comparison	No comparison	0.64
Normative Beliefs	0.90	No comparison	No comparison	0.57
Control Belief Strength	0.91	No comparison	No comparison	0.54
Export Intention	0.96	No comparison	No comparison	0.86

#### 4.4.4.2 Validity

From Table 4.8 above, it can be seen that the average variance extracted (AVE) for all constructs is above 0.5, indicating convergent validity. On the other hand, the high loading of items on the theorised construct and low or zero cross loading on other constructs provide evidence for discriminant validity (See Table 4.9).

Table 4.9 Discriminant validity - factor loadings (in bold) and cross loadings

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- Direction	Stimulation	Normative Beliefs
B2	0.1	<b>0.7</b>	0.3	0.4	0.0	0.1	0.1	0.3
B3	0.1	<b>0.8</b>	0.4	0.4	0.1	0.2	0.2	0.2
B4	0.1	<b>0.8</b>	0.5	0.4	0.1	0.3	0.2	0.2
B5	0.2	<b>0.9</b>	0.4	0.5	0.1	0.3	0.3	0.3
C1	0.1	0.4	<b>0.8</b>	0.3	0.2	0.2	0.2	0.1
C10	0.2	0.3	<b>0.7</b>	0.3	0.2	0.2	0.2	0.1
C2	0.0	0.4	<b>0.7</b>	0.5	0.1	0.2	0.1	0.1
C3	0.1	0.3	<b>0.7</b>	0.2	0.0	0.1	0.2	0.3
C5	0.0	0.5	<b>0.8</b>	0.3	0.1	0.2	0.2	0.2
C6	0.1	0.3	<b>0.7</b>	0.2	0.1	0.1	0.1	0.3
C7	0.1	0.4	<b>0.8</b>	0.4	0.2	0.2	0.2	0.2
C8	0.1	0.3	<b>0.7</b>	0.2	0.1	0.2	0.2	0.2
C9	0.2	0.4	<b>0.8</b>	0.3	0.3	0.3	0.4	0.3
I1	0.1	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.3
I2	0.1	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.3
I3	0.1	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.3
I4	0.1	0.4	0.4	<b>0.9</b>	0.1	0.1	0.1	0.2
SN10	0.2	0.2	0.1	0.2	0.1	0.1	0.1	<b>0.7</b>
SN11	0.2	0.3	0.2	0.2	0.1	0.1	0.3	<b>0.8</b>
SN12	0.1	0.3	0.3	0.3	0.2	0.0	0.2	<b>0.7</b>
SN4	0.2	0.2	0.2	0.2	0.1	0.1	0.2	<b>0.7</b>
SN6	0.2	0.1	0.1	0.1	0.1	0.1	0.2	<b>0.8</b>
SN7	0.1	0.2	0.1	0.2	0.0	0.1	0.2	<b>0.8</b>
SN8	0.2	0.2	0.2	0.2	0.1	0.0	0.2	<b>0.8</b>
V1	0.4	0.3	0.3	0.1	0.4	<b>0.9</b>	0.4	0.1
V13	<b>0.7</b>	0.0	0.0	0.0	0.4	0.2	0.4	0.1
V15	0.4	0.2	0.2	0.1	0.3	0.4	<b>0.8</b>	0.2
V17	0.5	0.1	0.1	0.1	<b>0.8</b>	0.4	0.3	0.1



V22	0.5	0.1	0.2	0.1	0.4	<b>0.8</b>	0.5	0.1
V24	<b>0.8</b>	0.1	0.1	0.0	0.5	0.4	0.5	0.2
V30	0.5	0.1	0.2	0.0	0.3	0.4	<b>0.8</b>	0.2
V32	<b>0.9</b>	0.2	0.2	0.1	0.4	0.4	0.5	0.2
V39	0.5	0.1	0.2	0.1	<b>0.9</b>	0.4	0.4	0.1
V6	0.5	0.3	0.2	0.1	0.4	0.5	<b>0.8</b>	0.2

Although Krueger *et al.* (2000) conjecture that the subjective norm of network members may have greater impact than family members and friends on intention but the item loadings of ‘My family’, ‘My friend(s)’ and ‘Network member(s)’ on Normative Beliefs are about the same (0.66, 0.67 and 0.68).

Furthermore, using Fornell and Larcker’s (1981) criteria, each construct’s square root of average variance extracted (the diagonal elements) is higher than its correlation with any other construct (the off-diagonal elements), thus inferring discriminant validity (Table 4.10).

Table 4.10 Discriminant validity

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.79</b>							
2. Behavioural Belief Strength	0.14	<b>0.80</b>						
3. Control Belief Strength	0.14	0.50	<b>0.73</b>					
4. Export Intention	0.08	0.53	0.42	<b>0.93</b>				
5. Power	0.56	0.11	0.22	0.11	<b>0.87</b>			
6. Self-direction	0.46	0.27	0.26	0.13	0.47	<b>0.85</b>		
7. Stimulation	0.57	0.27	0.27	0.12	0.43	0.55	<b>0.81</b>	
8. Normative Beliefs	0.21	0.30	0.26	0.28	0.14	0.09	0.28	<b>0.76</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

In summary, the evaluation of reliability and validity of measurement models produced satisfactory results to justify the interpretation of structural model estimates in the following sections.

#### **4.4.5 Hypothesis testing**

From this section onwards, the assessment of structural model results will determine how well the empirical data support the proposed integrative framework.

A total of 15 hypotheses for structural model grounded in extensive literature have been formulated to be empirically tested in this study as outlined in Chapter Three Research methodology Section 3.2.3. Post pilot test, Behavioural Beliefs is reduced to Behavioural Belief Strength and Control Beliefs is reduced to Control Belief Strength. Therefore, the revised hypotheses are:

H1 Self-direction influences Behavioural Belief Strength

H2 Self-direction influences Normative Beliefs

H3 Self-direction influences Control Belief Strength

H4 Stimulation influences Behavioural Belief Strength

H5 Stimulation influences Normative Beliefs

H6 Stimulation influences Control Belief Strength

H7 Achievement influences Behavioural Belief Strength

H8 Achievement influences Normative Beliefs

H9 Achievement influences Control Belief Strength

H10 Power influences Behavioural Belief Strength

H11 Power influences Normative Beliefs

H12 Power influences Control Belief Strength

H13 Behavioural Belief Strength influences Export Intention

H14 Normative Beliefs influences Export Intention

H15 Control Belief Strength influences Export Intention

The hypotheses are graphically depicted below.

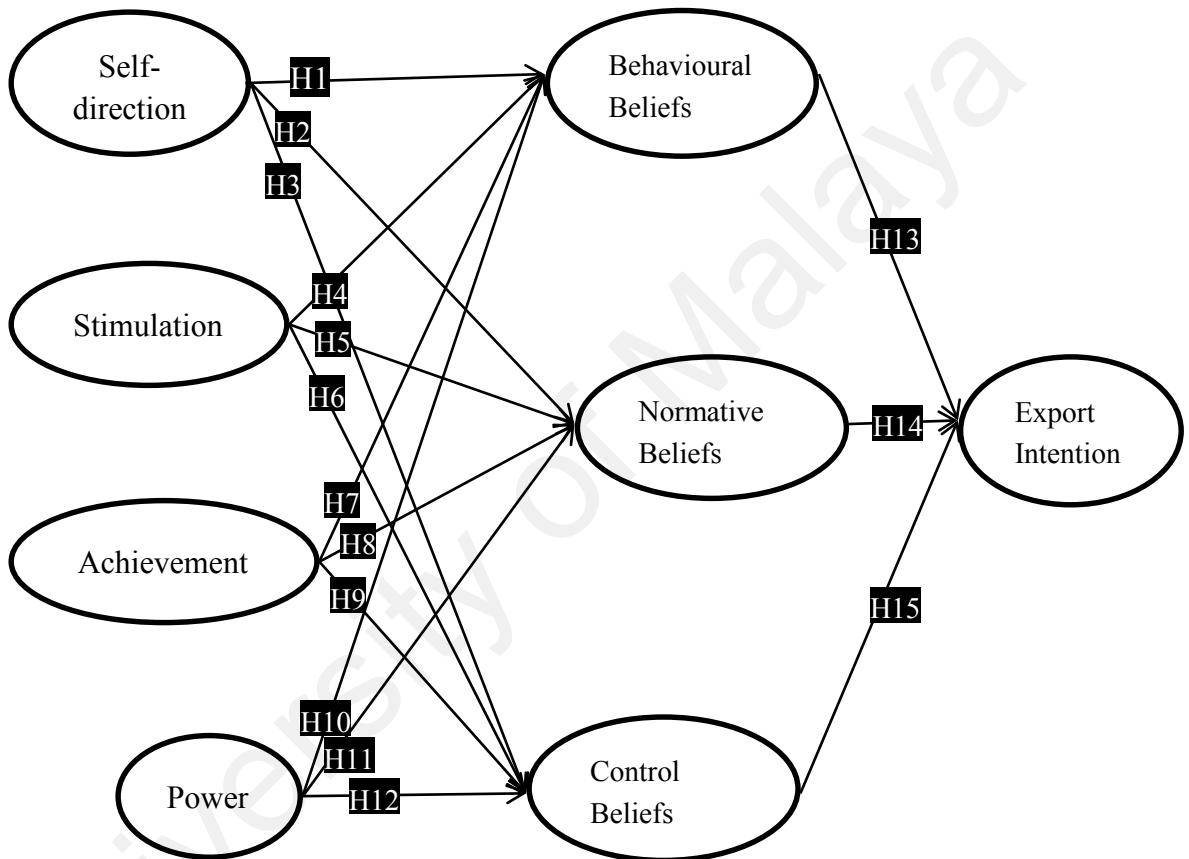


Figure 4.1 Proposed integrative framework and related hypotheses

Bootstrapping generated the  $t$ -value to be compared with critical values for hypothesis testing and the results are summarised in Table 4.11. From the 15 hypotheses tested, seven hypotheses are supported at least at 0.10 level of significance. The significant paths are from Self-direction to Behavioural Belief Strength (at 0.05 level of significance), Self-direction to Control Belief Strength (at 0.10 level of significance), Stimulation to Behavioural Belief Strength (at 0.05 level of significance), Stimulation to

Normative Beliefs (at 0.01 level of significance), Stimulation to Control Belief Strength (at 0.05 level of significance), Behavioural Belief Strength to Export Intention (at 0.01 level of significance) and Control Belief Strength to Export Intention (at 0.05 level of significance).

Table 4.11 Summary of hypotheses testing

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	0.21	2.30	0.09	Supported **
H2: Self-direction -> Normative Beliefs	-0.12	1.42	0.09	Not supported
H3: Self-direction -> Control Belief Strength	0.14	1.77	0.08	Supported *
H4: Stimulation -> Behavioural Belief Strength	0.20	2.16	0.09	Supported **
H5: Stimulation -> Normative Beliefs	0.28	3.31	0.09	Supported ***
H6: Stimulation -> Control Belief Strength	0.20	2.18	0.09	Supported **
H7: Achievement -> Behavioural Belief Strength	-0.04	0.46	0.09	Not supported
H8: Achievement -> Normative Beliefs	0.09	0.88	0.10	Not supported
H9: Achievement -> Control Belief Strength	-0.12	1.24	0.10	Not supported
H10: Power -> Behavioural Belief Strength	-0.05	0.46	0.10	Not supported
H11: Power -> Normative Beliefs	0.03	0.30	0.09	Not supported
H12: Power -> Control Belief Strength	0.14	1.35	0.10	Not supported
H13: Behavioural Belief Strength -> Export Intention	0.40	5.29	0.08	Supported ***
H14: Normative Beliefs -> Export Intention	0.11	1.19	0.09	Not supported
H15: Control Belief Strength -> Export Intention	0.19	2.64	0.07	Supported **

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10 level

Due to the exploratory nature of this study, the significant level of 0.1 is also adopted (Hair et al., 2014). The strongest path coefficient is from Behavioural Belief Strength to Export Intention (0.40). The results of hypotheses testing also demonstrated nomological validity where some of the relationships are consistent with existing theory or prior research (Hair et al., 2006), particularly the relationships between beliefs and intention (Ajzen, 2006; Linan & Chen, 2009). To ease the visualisation of the significant paths in the proposed integrative framework, Figure 4.1 is simplified into Figure 4.2. (Note: This simplification will also apply to Part Four Observed and Unobserved Heterogeneity).

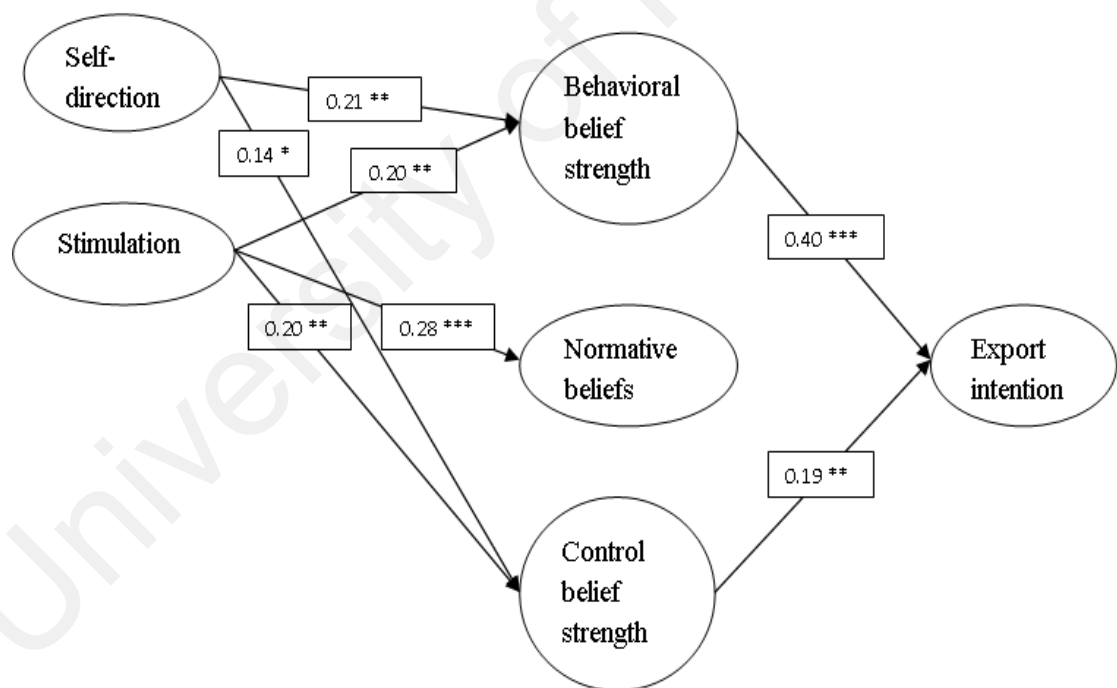


Figure 4.2 Significant paths for aggregate sample

#### 4.4.6 Coefficient of determination of endogenous constructs

There seems to be no general agreement on the acceptable level of coefficient of determination ( $R^2$ ), as it depends on the research context (Guide & Ketokivi, 2015; Hair et al., 2014; Hair et al., 2012a). Chin (1998) suggests that if certain path models explain an endogenous construct by only one or two exogenous constructs, thus the ‘moderate’  $R^2$  may be acceptable. In the proposed integrative framework, only Behavioural Belief Strength and Control Belief Strength directly explain 32% of the variance in Export Intention, therefore, the  $R^2$  is acceptable (Table 4.12). Moreover, the  $R^2$  for Export Intention is much higher than 0.006 from a comparable unintegrated model using SME entrepreneur sample. The low  $R^2$  for Behavioural Belief Strength, Normative Beliefs and Control Belief Strength are probably due to the exploratory nature of the value-belief links in the current study.

Table 4.12 Coefficient of determination ( $R^2$ ) of endogenous constructs

Construct	$R^2$
Behavioural Belief Strength	0.10
Normative Beliefs	0.09
Control Belief Strength	0.10
Export Intention	0.32

#### 4.4.7 Effect size of the exogenous constructs

The Effect size ( $f^2$ ) evaluates whether the omitted exogenous construct has a substantive effect on the endogenous construct (Hair et al., 2014). The interpretation for effect size is that 0.02 means weak, 0.15 means moderate and 0.35 means large effect of the exogenous

construct (Chin, 1998; Henseler & Fassott, 2010; Henseler, Ringle, & Sinkovics, 2009).

The findings show that the effect sizes for Stimulation and Self-direction on Behavioural Belief Strength are weak. In addition, the effect-size ( $f^2$ ) results are consistent with the hypothesis testing results in Section 4.4.5 where both the paths from Stimulation and Self-direction to Behavioural Belief Strength (with effect-size of 0.03 and 0.01 respectively) are significant at the 0.05 level, whereas both paths from Achievement and Power to Behavioural Belief Strength (with effect-size 0.00) are not significant (Table 4.13).

Table 4.13 Endogenous construct: Behavioural Belief Strength

Exogenous construct	$R^2$ included	$R^2$ excluded	Effect-size ( $f^2$ )	Evaluation of effect size
Self-direction	0.096	0.083	0.01	Weak
Stimulation	0.096	0.066	0.03	Weak
Achievement	0.096	0.095	0.00	No effect
Power	0.096	0.095	0.00	No effect

The effect size of Stimulation on Normative Beliefs is weak. Even though the effect sizes of Self-direction and Achievement on Normative Beliefs are weak but the path coefficients are insignificant (Table 4.14).

Table 4.14 Endogenous construct: Normative Beliefs

Exogenous construct	$R^2$ included	$R^2$ excluded	Effect-size ( $f^2$ )	Evaluation of effect size
Self-direction	0.093	0.076	0.02	Weak
Stimulation	0.093	0.054	0.04	Weak
Achievement	0.093	0.088	0.01	Weak
Power	0.093	0.090	0.00	No effect

For the endogenous construct of Control Belief Strength, although all the effect sizes are weak but the path coefficients from Achievement and Power are insignificant (Table 4.15).

Table 4.15 Endogenous construct: Control Belief Strength

Exogenous variable	R <sup>2</sup> included	R <sup>2</sup> excluded	Effect-size (f <sup>2</sup> )	Evaluation of effect size
Self-direction	0.089	0.084	0.01	Weak
Stimulation	0.089	0.065	0.03	Weak
Achievement	0.089	0.083	0.01	Weak
Power	0.089	0.076	0.01	Weak

Finally, for the endogenous construct of Export Intention, the medium effect size of Behavioural Belief Strength and the weak effect size of Control Belief Strength are consistent with their significant path coefficients except for Normative Beliefs (Table 4.16).

Table 4.16 Endogenous construct: Export Intention

Exogenous construct	R <sup>2</sup> included	R <sup>2</sup> excluded	Effect-size (f <sup>2</sup> )	Evaluation of effect size
Behavioural Belief Strength	0.327	0.215	0.17	Medium
Normative Beliefs	0.327	0.320	0.01	Weak
Control Belief Strength	0.327	0.293	0.05	Weak

#### 4.4.8 Predictive relevance

For a reflective endogenous construct, a Q<sup>2</sup> value larger than zero indicates the path model's predictive relevance. The relative impact of predictive relevance (q<sup>2</sup>) effect size of 0.02, 0.15 or 0.35, is interpreted as an exogenous construct having a weak, moderate or strong degree of predictive relevance respectively for a certain endogenous construct



(Hair et al., 2012a; Henseler et al., 2009).

For Behavioural Belief Strength, all the  $Q^2$  values are larger than zero, thus indicating this path model's predictive relevance (Table 4.17). Similarly, for Normative Beliefs and Control Belief Strength, all the  $Q^2$  values are also larger than zero, thus inferring the respective path model's predictive relevance (Tables 4.18 and 4.19). Overall, the four exogenous value constructs did possess predictive relevance for the three endogenous belief constructs. It means that the observed items are well reconstructed, therefore, explaining the three endogenous constructs (Henseler et al., 2009). These findings are consistent with the preceding hypotheses testing results where at least one path coefficient from the value constructs into the belief constructs is significant. Generally, Self-direction and Stimulation have weak relative impact; Achievement and Power have no relative impact. These results corroborate with previous hypotheses testing.

Table 4.17 Endogenous construct: Behavioural Belief Strength...

Exogenous construct	$Q^2$ included	$Q^2$ excluded	$Q^2$	Evaluation of relative impact
Self-direction	0.05	0.04	0.01	Weak
Stimulation	0.05	0.03	0.01	Weak
Achievement	0.05	0.05	0.00	No effect
Power	0.05	0.05	0.00	No effect

Table 4.18 Endogenous construct: Normative Beliefs

Exogenous construct	Q <sup>2</sup> included	Q <sup>2</sup> excluded	$\eta^2$	Evaluation of relative impact
Self-direction	0.04	0.03	0.01	Weak
Stimulation	0.04	0.02	0.02	Weak
Achievement	0.04	0.04	0.00	No effect
Power	0.04	0.04	0.00	No effect

Table 4.19 Endogenous construct: Control Belief Strength

Exogenous construct	Q <sup>2</sup> included	Q <sup>2</sup> excluded	$\eta^2$	Evaluation of relative impact
Self-direction	0.04	0.04	0.00	No effect
Stimulation	0.04	0.03	0.01	Weak
Achievement	0.04	0.04	0.00	No effect
Power	0.04	0.03	0.00	No effect

For Export Intention, all the Q<sup>2</sup> values are larger than zero and thus provide empirical support for this path model's predictive relevance. Importantly, the medium relative impact of Behavioural Belief Strength and the weak relative impact of Control Belief Strength on Export Intention (see Table 4.20) are consistent with the preceding hypotheses testing results where the path coefficients from Behavioural Belief Strength and Control Belief Strength into Export Intention are 0.40 and 0.19 respectively.

Table 4.20 Endogenous construct: Export Intention

Exogenous construct	Q <sup>2</sup> included	Q <sup>2</sup> excluded	$Q^2$	Evaluation of relative impact
Behavioural Belief Strength	0.27	0.18	0.12	Medium
Normative Beliefs	0.27	0.27	0.01	Weak
Control Belief Strength	0.27	0.24	0.05	Weak

#### 4.4.9 Global goodness-of-fit criteria

The goodness-of-fit (GoF) is calculated manually in this study (note: SmartPLS does not have this feature) as a supplementary statistic to shed more light on the proposed integrative framework. The global model with a GoF value of 0.32 (Table 4.21) is close to large (Wetzels, Odekerken-Schroder, & Van Oppen, 2009) and considered satisfactory within the constraints of this exploratory study.

Table 4.21 Global goodness-of-fit

Construct	Communality (or AVE)	R <sup>2</sup>	GoF
Self-direction	0.72		0.32
Stimulation	0.66		
Achievement	0.62		
Power	0.76		
Behavioural Belief Strength	0.64	0.10	
Normative Beliefs	0.57	0.09	
Control Belief Strength	0.54	0.10	
Export Intention	0.86	0.32	
Average	0.67	0.15	

#### **4.5 Part Four - Observed and unobserved heterogeneity**

Subsequent to using Partial Least Squares to estimate the multi-variate model, it is also crucial to determine whether the results are excessively affected by a small set of observations which render the results not generalisable (Hair et al., 2006) as previously discussed in Section 4.4.1.3. Ignoring context (for example, observed heterogeneity) can contaminate research findings (Johns, 2006). Consequently, both observed and unobserved heterogeneity are examined in this section. To ensure meaningful multiple group comparison, measurement invariance is a pre-requisite.

##### **4.5.1 Test for measurement invariance with multi-group Confirmatory Factor Analysis**

Measurement invariance is usually tested using multi-group Confirmatory Factor Analysis (MG-CFA) (Byrne, 2010; Cheung & Rensvold, 2002; Davidov et al., 2008; Hair et al., 2006; Steenkamp & Baumgartner, 1998; Wu et al., 2007). Multi-group analysis is becoming more and more common in Partial Least Squares, both as a test for moderation effect for observed heterogeneity and especially for unobserved heterogeneity. Although testing for measurement invariance prior to conducting multi-group analysis has been mentioned in Partial Least Squares literature, unfortunately, to the best of this researcher's knowledge, measurement invariance is either not done or done incorrectly. This problem is further complicated by the unavailability of this technique in SMARTPLS software. In contrast, multi-group Confirmatory Factor Analysis is available in covariance-based SEM software such as AMOS and LISREL. Under this situation, this researcher has no choice but to switch to AMOS to conduct multi-group Confirmatory Factor Analysis.

The first step in multi-group Confirmatory Factor Analysis is to derive a baseline model for each group separately from an initially hypothesised model. The baseline models are identified when it best fits the data from each group from the perspectives of both parsimony and substantive meaningfulness (Byrne, 2010). If the goodness-of fit indexes are not satisfactory, the baseline model is modified based on the insignificant factor loadings, items with significant but smaller factor loading and modification index to fit the data to the model. After item deletion and modification, if the goodness-of-fit indexes are satisfactory and the baseline models are similar, the baseline models will become the hypothesised multi-group baseline model as AMOS uses only single path diagram structure in multi-group Confirmatory Factor Analysis. Nevertheless, baseline models may not be identical across groups and this condition leads to partial measurement invariance (Byrne, 2010).

For the current study, the pattern of factor loading for each observed measure onto its corresponding construct is examined for its equivalence across groups (Kline, 2005). Although many salient and non-salient items loaded similarly across gender, ethnicity and exporting status, there are several exceptions. Because there are no major differences in model specification, as such, a modified model (after deleting non-salient items, items with significant but smaller loading and modifications) that fits well with overall data is used as the hypothesised multi-group baseline model (Byrne, 2010). Consequently, only partial measurement invariance can be achieved by the subsequent tests of invariance.

To derive this hypothesised multi-group baseline model (there are three multi-group comparisons, that is, between female and male in model 2a; Malays and Chinese in model 2b; exporters and non-exporters in model 2c), data for the corresponding groups are

analysed simultaneously to test for configural invariance. The discriminant validity for all constructs in this hypothesised multi-group baseline model has been established in Section 4.4.4. In AMOS, select ‘Analyse’, followed by ‘Manage Groups’, then name the two groups in each comparison (for example, group 1 is male and group two is female in model 2a). Next is to select the data file for each group and assign ‘Group Value’ for each group. Finally, estimate the hypothesised multi-group baseline model. The hypothesis of configural invariance cannot be rejected because the data for both groups fits the hypothesised multi-group baseline model satisfactorily in terms of CFI (above 0.90) and RMSEA (below 0.06). Instead of showing the goodness-of-fit for each modification which will be lengthy, only the final acceptable CFI and RMSEA will be shown in Table 4.22.

Table 4.22 Goodness-of-fit statistic for configural models

Model	CFI	RMSEA
1. Hypothesised multi-group baseline model	0.903	0.057
2a. Hypothesised multi-group baseline model for gender	0.906	0.050
2b. Hypothesised multi-group baseline model for ethnicity	0.919	0.043
2c. Hypothesised multi-group baseline model for current exporting status	0.917	0.046

If configural invariance is not rejected, the next step is to test metric invariance using the automated multiple-group approach. In AMOS, select ‘Analyse’, followed by ‘Multiple-group Analysis’, then check (or select) Model 1 (with parameter subset of measurement weights) and finally click ‘OK’. The CFI and RMSEA for this constrained model must be acceptable. The null hypothesis of metric invariance should not be rejected if the change in CFI ( $\Delta$ CFI) of the constrained model vis-à-vis the configural model is

less than or equal to -0.01 (Cheung & Rensvold, 2002). As depicted in Table 4.23, the CFIs and RMSEAs for the three hypothesised multi-group baseline models have satisfactory model fit and all the  $\Delta CFI$  is less than or equal to -0.01, hence, the null hypothesis of metric invariance for the three multi-group comparisons should not be rejected and the further testing of scalar invariance is justified. Given metric invariance, it is legitimate to compare the relationships between constructs in a nomological net (Steenkamp & Baumgartner, 1998).

Table 4.23 Goodness-of-fit statistic for metric models

Model	CFI	$\Delta CFI$	RMSEA
2a. Hypothesised multi-group baseline model for gender	0.903	-0.003	0.049
2b. Hypothesised multi-group baseline model for ethnicity	0.909	-0.01	0.045
2c. Hypothesised multi-group baseline model for current exporting status	0.915	-0.002	0.046

In multi-group Confirmatory Factor Analysis, testing for the invariance of latent mean structures is to test for differences in the construct means for each group and is not to estimate the mean of each construct for each group (Byrne, 2010). Note that the construct means are unobservable and thus, this test is different from testing observable means (Byrne, 2010). It is only legitimate to compare latent mean structure if the model demonstrates full or partial configural, metric and scalar measurement invariance (Byrne, 2010; Steenkamp & Baumgartner, 1998).

In AMOS, click 'Analysis Properties' followed by 'Estimation', after which select 'Estimate Means and Intercepts', next close the dialog box. Select 'Analyse', followed by 'Multiple-group Analysis', then check Model 1 (with parameter subset of measurement weights) and Model 2 (with parameter subset of measurement weights and

intercepts). Click 'OK'. AMOS will automatically assign zero values for the constructs in both groups. In testing for latent mean differences, one group is freely estimated whereas the other is constrained; therefore, the fixed construct values for one group have to be removed, usually in the reference group. In this study, the reference groups are female, Chinese and non-exporters. In the non-reference group (i.e. male, Malays and exporters), left click the construct and then right click for Object Properties, then click on Parameters and re-label the mean from '0' to 'mean\_group name\_construct'. This step is repeated for all constructs in the model. The All Groups box must be left empty so that the relabelling of mean is limited to non-reference group. Close the Object Properties dialog box and click Calculate Estimates. Again, the CFI and RMSEA for each constrained model must be acceptable and the change in CFI ( $\Delta$ CFI) of each constrained model vis-à-vis the configural model is less than or equal to -0.01 (Cheung & Rensvold, 2002). The results revealed that the mean comparison is tenable for gender and exporting status but not ethnic as both the CFI and  $\Delta$ CFI after constraining the intercepts for both Malays and Chinese are unsatisfactory (Table 4.24).

Overall, the measurement invariance hypotheses testing using multi-group Confirmatory Factor Analysis supported testing for PLS multi-group analysis for all three groups (i.e. gender, ethnicity and exporting status) and construct mean comparison for gender and exporting status only. However, Cooke *et al.* (2001 cited in Byrne, 2010) argue that scalar variance should not prevent items from measuring their underlying constructs. On the basis of this literature support, this study will proceed to compare construct means for ethnicity as well in Section 4.4.10.2.



Table 4.24 Goodness-of-fit statistic for scalar models

Model	CFI	$\Delta$ CFI	RMSEA
2a. Hypothesised multi-group baseline model for gender	0.902	-0.004	0.049
2b. Hypothesised multi-group baseline model for ethnicity	0.896	-0.023	0.047
2c. Hypothesised multi-group baseline model for current exporting status	0.913	-0.004	0.046

#### 4.5.2 Multi-group analysis for observed heterogeneity

To achieve the fifth research objective of this study, gender, ethnicity and current exporting status of entrepreneurs are used as moderators to investigate the moderation effect on the proposed integrative model (Please refer to Chapter Three Research Methodology Section 3.2.3). Hypothesis Number 16 is tested by statistically comparing the path coefficients from entrepreneurial values to Export Intention in the structural model for female entrepreneurs with the corresponding path coefficients in the structural model for male entrepreneurs. For hypotheses Numbers 17 and 18, the same procedure is repeated to compare Malay and Chinese entrepreneurs followed by exporters and non-exporters.

The reliability and validities for all constructs in the proposed integrative framework using all sub-groups (i.e. female and male entrepreneurs; Malay and Chinese entrepreneurs; exporters and non-exporters) are examined. To summarise, all the reliability and validity tests are acceptable in order to proceed to structural model estimates and interpretation.

##### 4.5.2.1 Group analysis for female entrepreneurs

The indicator reliability for female entrepreneurs is depicted in Table 4.25. All item loadings are  $\geq 0.7$  and  $t$ -statistic is significant.

Table 4.25 Indicator reliability for female entrepreneurs

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B2 <- Behavioural Belief Strength	0.7	0.12	5.31
B3 <- Behavioural Belief Strength	0.8	0.06	12.99
B4 <- Behavioural Belief Strength	0.8	0.04	21.27
B5 <- Behavioural Belief Strength	0.8	0.04	19.98
C1 <- Control Belief Strength	0.7	0.11	6.91
C11 <- Control Belief Strength	0.7	0.08	9.08
C2 <- Control Belief Strength	0.8	0.09	8.85
C3 <- Control Belief Strength	0.7	0.08	8.58
C5 <- Control Belief Strength	0.8	0.07	11.22
C6 <- Control Belief Strength	0.7	0.08	8.87
C7 <- Control Belief Strength	0.8	0.04	18.11
C8 <- Control Belief Strength	0.7	0.07	9.54
C9 <- Control Belief Strength	0.8	0.05	15.65
I1 <- Export Intention	0.9	0.03	32.83
I2 <- Export Intention	0.9	0.04	25.39
I3 <- Export Intention	0.9	0.03	31.23
I4 <- Export Intention	0.8	0.15	5.17
SN10 <- Normative Belief Strength	0.7	0.10	6.71
SN11 <- Normative Belief Strength	0.7	0.09	8.21
SN2 <- Normative Belief Strength	0.7	0.13	5.28
SN3 <- Normative Belief Strength	0.7	0.14	5.05
SN4 <- Normative Belief Strength	0.8	0.11	6.97
SN5 <- Normative Belief Strength	0.7	0.10	7.30
SN6 <- Normative Belief Strength	0.8	0.08	10.90
SN7 <- Normative Belief Strength	0.7	0.09	8.07
SN8 <- Normative Belief Strength	0.7	0.09	7.93
V1 <- Self-direction	0.9	0.05	18.13
V11 <- Self-direction	0.7	0.14	4.86
V13 <- Achievement	0.9	0.27	3.44
V15 <- Stimulation	0.8	0.11	7.89
V17 <- Power	0.8	0.22	3.68
V22 <- Self-direction	0.7	0.11	6.48
V30 <- Stimulation	0.8	0.09	9.00
V39 <- Power	0.9	0.26	3.71
V4 <- Achievement	0.8	0.28	2.79
V6 <- Stimulation	0.8	0.10	8.04

The composite reliability and convergent validity for female entrepreneurs is depicted in Table 4.26. The composite reliability and convergent validity are satisfactory.

Table 4.26 Composite reliability and convergent validity for female entrepreneurs

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	0.81	0.52
Stimulation	0.85	0.65
Achievement	0.85	0.74
Power	0.88	0.79
Behavioural Belief Strength	0.88	0.59
Normative Beliefs	0.92	0.53
Control Belief Strength	0.92	0.51
Export Intention	0.94	0.79

The discriminant validity for female entrepreneurs is depicted in Tables 4.27 and 4.28. The discriminant validity from both methods is satisfactory.

Table 4.27 Discriminant validity – factor loadings and cross-loadings for female

entrepreneurs

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- direction	Stimulation	Normative Beliefs
B2	0.3	<b>0.7</b>	0.2	0.3	0.1	0.2	0.2	0.2
B3	0.1	<b>0.8</b>	0.3	0.4	0.0	0.1	0.2	0.2
B4	0.0	<b>0.8</b>	0.4	0.6	0.1	0.2	0.2	0.2
B5	0.1	<b>0.8</b>	0.5	0.5	0.0	0.2	0.2	0.2
C1	0.1	0.4	<b>0.7</b>	0.3	0.0	0.2	0.1	-0.1
C11	0.0	0.2	<b>0.7</b>	0.5	0.1	0.1	0.0	0.0
C2	0.0	0.4	<b>0.8</b>	0.4	0.0	0.2	0.2	0.1
C3	0.0	0.3	<b>0.7</b>	0.3	0.0	0.1	0.1	0.2
C5	0.0	0.4	<b>0.8</b>	0.3	0.0	0.2	0.1	0.1
C6	-0.1	0.3	<b>0.7</b>	0.4	-0.1	0.1	0.1	0.1
C7	0.0	0.5	<b>0.8</b>	0.5	0.1	0.3	0.2	0.2
C8	0.0	0.2	<b>0.7</b>	0.3	0.0	0.3	0.2	0.1
C9	-0.1	0.3	<b>0.8</b>	0.5	0.2	0.4	0.2	0.1
I1	0.0	0.5	0.5	<b>0.9</b>	0.1	0.2	0.2	0.3
I2	0.0	0.5	0.5	<b>0.9</b>	0.0	0.1	0.2	0.2
I3	0.0	0.5	0.6	<b>0.9</b>	0.0	0.1	0.1	0.4
I4	0.1	0.4	0.4	<b>0.8</b>	0.0	0.1	0.1	0.2
SN10	0.2	0.3	0.1	0.2	0.2	0.2	0.2	<b>0.7</b>
SN11	0.1	0.2	0.2	0.5	0.1	0.2	0.3	<b>0.7</b>
SN2	0.2	0.3	0.0	0.2	0.1	0.2	0.3	<b>0.7</b>
SN3	0.2	0.1	-0.1	0.0	0.1	0.1	0.3	<b>0.7</b>
SN4	0.0	0.2	0.2	0.2	0.1	0.3	0.5	<b>0.8</b>
SN5	0.1	0.1	0.2	0.1	0.2	0.3	0.4	<b>0.7</b>
SN6	0.1	0.2	0.1	0.2	0.1	0.2	0.4	<b>0.8</b>
SN7	0.0	0.0	0.0	0.1	0.0	0.2	0.3	<b>0.7</b>
SN8	0.1	0.2	0.1	0.4	0.0	0.1	0.2	<b>0.7</b>
V1	0.3	0.3	0.3	0.1	0.6	<b>0.9</b>	0.5	0.3
V11	0.4	0.2	0.2	0.1	0.5	<b>0.7</b>	0.5	0.1
V13	<b>0.9</b>	0.2	0.0	0.1	0.5	0.4	0.4	0.2
V15	0.4	0.2	0.1	0.2	0.3	0.5	<b>0.8</b>	0.4
V17	0.6	0.0	0.0	0.0	<b>0.8</b>	0.6	0.5	0.1
V22	0.3	0.2	0.1	0.2	0.5	<b>0.7</b>	0.6	0.2
V30	0.4	0.2	0.1	0.0	0.4	0.4	<b>0.8</b>	0.4
V39	0.4	0.1	0.1	0.0	<b>0.9</b>	0.7	0.4	0.1
V4	<b>0.8</b>	0.1	0.0	0.0	0.4	0.4	0.4	0.1
V6	0.4	0.3	0.2	0.2	0.5	0.7	<b>0.8</b>	0.3

Table 4.28 Discriminant validity – square root of AVE for female entrepreneurs

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.86</b>							
2. Behavioural Belief Strength	0.15	<b>0.77</b>						
3. Control Belief Strength	-0.01	0.46	<b>0.71</b>					
4. Export Intention	0.03	0.54	0.54	<b>0.89</b>				
5. Power	0.52	0.10	0.06	0.04	<b>0.89</b>			
6. Self-direction	0.44	0.28	0.26	0.14	0.70	<b>0.72</b>		
7. Stimulation	0.49	0.27	0.17	0.16	0.49	0.66	<b>0.81</b>	
8. Normative Beliefs	0.15	0.24	0.14	0.31	0.12	0.29	0.47	<b>0.73</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for female entrepreneurs are summarised in Table 4.29.

Table 4.29 Summary of hypotheses testing for female entrepreneurs

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	0.32	1.96	0.16	Supported **
H2: Self-direction -> Normative Beliefs	0.08	0.43	0.19	Not supported
H3: Self-direction -> Control Belief Strength	0.43	2.15	0.20	Supported **
H4: Stimulation -> Behavioural Belief Strength	0.14	0.82	0.17	Not supported
H5: Stimulation -> Normative Beliefs	0.52	3.74	0.14	Supported ***
H6: Stimulation -> Control Belief Strength	0.03	0.18	0.19	Not supported
H7: Achievement -> Behavioural Belief Strength	0.07	0.44	0.15	Not supported
H8: Achievement -> Normative Beliefs	-0.05	0.32	0.15	Not supported
H9: Achievement -> Control Belief Strength	-0.10	0.60	0.17	Not supported
H10: Power -> Behavioural Belief Strength	-0.23	1.41	0.16	Not supported
H11: Power -> Normative Beliefs	-0.16	0.96	0.16	Not supported
H12: Power -> Control Belief Strength	-0.21	1.20	0.17	Not supported
H13: Behavioural Belief Strength -> Export Intention	0.33	2.65	0.12	Supported ***
H14: Normative Beliefs -> Export Intention	0.18	1.57	0.12	Not supported
H15: Control Belief Strength -> Export Intention	0.36	2.87	0.13	Supported ***

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10

level

The significant paths for female entrepreneurs are summarised in Figure 4.3 below.

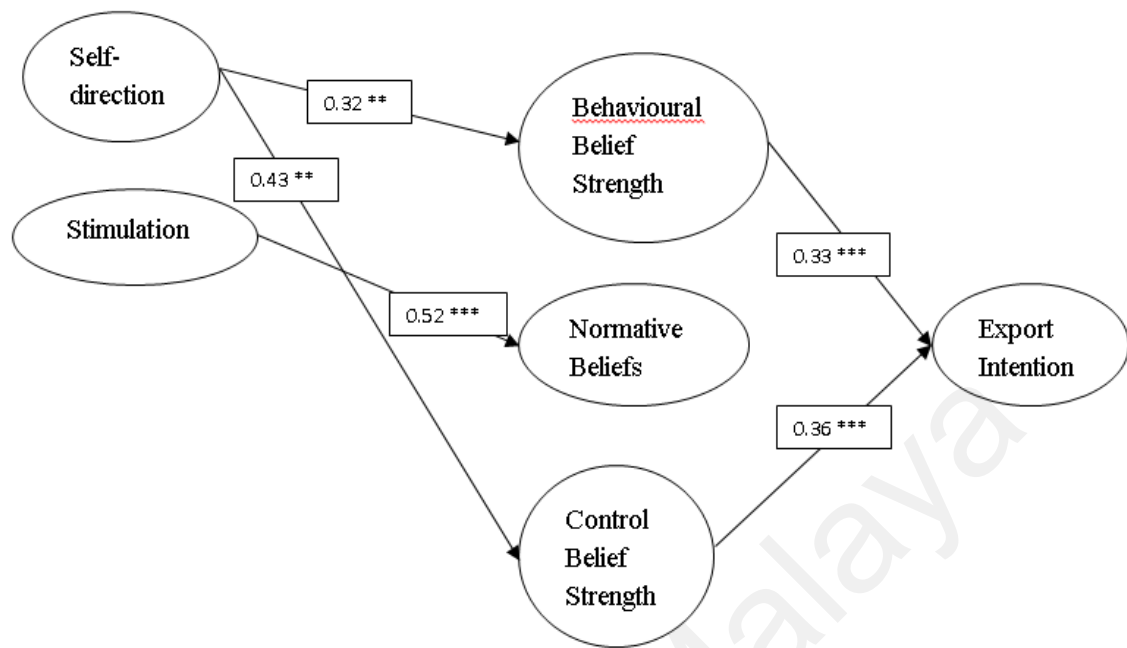


Figure 4.3 Significant paths for female entrepreneurs

#### 4.5.2.2 Group analysis for male entrepreneurs

The indicator reliability for male entrepreneurs is depicted in Table 4.30. All item loadings are  $\geq 0.7$  and  $t$ -statistic is significant.

Table 4.30 Indicator reliability for male entrepreneurs

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B2 <- Behavioural Belief Strength	0.7	0.06	11.12
B3 <- Behavioural Belief Strength	0.8	0.04	18.58
B4 <- Behavioural Belief Strength	0.8	0.03	23.24
B5 <- Behavioural Belief Strength	0.8	0.03	31.38
C1 <- Control Belief Strength	0.8	0.06	13.15
C10 <- Control Belief Strength	0.7	0.07	9.90
C11 <- Control Belief Strength	0.7	0.07	9.99
C2 <- Control Belief Strength	0.7	0.06	12.66
C3 <- Control Belief Strength	0.7	0.06	10.43
C5 <- Control Belief Strength	0.7	0.05	15.21
C6 <- Control Belief Strength	0.7	0.07	9.13
C7 <- Control Belief Strength	0.8	0.05	15.82
C8 <- Control Belief Strength	0.7	0.07	10.62
C9 <- Control Belief Strength	0.8	0.05	17.26
I1 <- Export Intention	0.9	0.03	35.89
I2 <- Export Intention	0.9	0.02	47.86
I3 <- Export Intention	0.9	0.02	49.60
I4 <- Export Intention	0.9	0.06	16.42
SN10 <- Normative Beliefs	0.7	0.06	10.85
SN11 <- Normative Beliefs	0.8	0.06	12.64
SN12 <- Normative Beliefs	0.7	0.07	10.14
SN3 <- Normative Beliefs	0.7	0.08	8.59



SN4 <- Normative Beliefs	0.7	0.07	11.12
SN5 <- Normative Beliefs	0.7	0.07	8.93
SN6 <- Normative Beliefs	0.7	0.05	15.55
SN7 <- Normative Beliefs	0.8	0.06	13.06
SN8 <- Normative Beliefs	0.8	0.05	15.08
SN9 <- Normative Beliefs	0.7	0.08	8.16
V1 <- Self-direction	0.9	0.13	7.01
V13 <- Achievement	0.7	0.12	5.72
V15 <- Stimulation	0.8	0.05	17.08
V17 <- Power	0.8	0.14	5.94
V22 <- Self-direction	0.7	0.13	5.69
V24 <- Achievement	0.8	0.11	7.17
V30 <- Stimulation	0.8	0.05	14.45
V32 <- Achievement	0.9	0.09	9.43
V39 <- Power	0.9	0.09	11.02
V4 <- Achievement	0.7	0.13	5.16
V6 <- Stimulation	0.8	0.04	21.28

The composite reliability and convergent validity for male entrepreneurs is depicted in Table 4.31. The composite reliability and convergent validity are satisfactory.

Table 4.31 Composite reliability and convergent validity for male entrepreneurs

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	0.80	0.50
Stimulation	0.85	0.66
Achievement	0.84	0.56
Power	0.87	0.77
Behavioural Belief Strength	0.87	0.57
Normative Beliefs	0.92	0.50
Control Belief Strength	0.92	0.51
Export Intention	0.96	0.86

The discriminant validity for male entrepreneurs is depicted in Tables 4.32 and 4.33.

The discriminant validity from both methods is satisfactory.

Table 4.32 Discriminant validity – factor loadings and cross-loadings for male

entrepreneurs

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- direction	Stimulation	Normative Beliefs
B2	0.1	<b>0.7</b>	0.3	0.4	0.0	0.1	0.1	0.3
B3	0.0	<b>0.8</b>	0.4	0.4	0.1	0.2	0.2	0.2
B4	0.1	<b>0.8</b>	0.5	0.4	0.1	0.2	0.2	0.2
B5	0.2	<b>0.8</b>	0.4	0.5	0.1	0.3	0.3	0.3
C1	0.1	0.4	<b>0.8</b>	0.3	0.2	0.2	0.2	0.1
C10	0.2	0.3	<b>0.7</b>	0.3	0.2	0.2	0.2	0.2
C11	0.1	0.3	<b>0.7</b>	0.3	0.2	0.1	0.2	0.1
C2	0.0	0.4	<b>0.7</b>	0.5	0.1	0.2	0.1	0.1
C3	0.1	0.3	<b>0.7</b>	0.2	0.0	0.1	0.2	0.3
C5	0.1	0.5	<b>0.7</b>	0.3	0.1	0.2	0.2	0.2
C6	0.1	0.3	<b>0.7</b>	0.2	0.1	0.1	0.1	0.3
C7	0.1	0.4	<b>0.8</b>	0.4	0.2	0.2	0.2	0.2
C8	0.1	0.3	<b>0.7</b>	0.2	0.1	0.2	0.2	0.2
C9	0.2	0.4	<b>0.8</b>	0.3	0.3	0.3	0.4	0.3
I1	0.0	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.3
I2	0.0	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.3
I3	0.1	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.3
I4	0.1	0.4	0.4	<b>0.9</b>	0.1	0.1	0.1	0.2
SN10	0.2	0.3	0.1	0.2	0.1	0.1	0.1	<b>0.7</b>
SN11	0.2	0.3	0.2	0.2	0.1	0.0	0.3	<b>0.8</b>
SN12	0.1	0.3	0.3	0.3	0.2	0.0	0.2	<b>0.7</b>
SN3	0.2	0.1	0.1	0.1	0.2	0.1	0.2	<b>0.7</b>
SN4	0.1	0.3	0.2	0.2	0.1	0.1	0.2	<b>0.7</b>
SN5	0.2	0.1	0.2	0.1	0.2	0.1	0.2	<b>0.7</b>
SN6	0.2	0.2	0.1	0.1	0.1	0.1	0.2	<b>0.7</b>
SN7	0.1	0.2	0.2	0.2	0.0	0.0	0.2	<b>0.8</b>
SN8	0.1	0.2	0.2	0.2	0.1	0.0	0.2	<b>0.8</b>
SN9	0.2	0.3	0.1	0.3	0.1	0.0	0.1	<b>0.7</b>
V1	0.4	0.3	0.2	0.1	0.4	<b>0.9</b>	0.4	0.1
V13	<b>0.7</b>	0.1	0.0	0.0	0.4	0.3	0.4	0.2
V15	0.4	0.2	0.2	0.1	0.3	0.4	<b>0.8</b>	0.2
V17	0.5	0.1	0.1	0.1	<b>0.8</b>	0.4	0.3	0.1
V22	0.4	0.1	0.1	0.1	0.4	<b>0.7</b>	0.5	0.0
V24	<b>0.8</b>	0.1	0.1	0.0	0.5	0.5	0.5	0.2
V30	0.5	0.2	0.2	0.0	0.3	0.4	<b>0.8</b>	0.2
V32	<b>0.9</b>	0.2	0.2	0.1	0.4	0.4	0.5	0.2
V39	0.5	0.1	0.2	0.1	<b>0.9</b>	0.5	0.4	0.2

V4	<b>0.7</b>	0.1	0.1	0.0	0.4	0.3	0.4	0.1
V6	0.5	0.3	0.2	0.1	0.4	0.6	<b>0.8</b>	0.2

Table 4.33 Discriminant validity – square root of AVE for male entrepreneurs

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.75</b>							
2. Behavioural Belief Strength	0.15	<b>0.76</b>						
3. Control Belief Strength	0.14	0.49	<b>0.71</b>					
4. Export Intention	0.07	0.53	0.43	<b>0.93</b>				
5. Power	0.57	0.12	0.21	0.11	<b>0.88</b>			
6. Self-direction	0.48	0.25	0.23	0.10	0.51	<b>0.71</b>		
7. Stimulation	0.58	0.29	0.26	0.12	0.43	0.58	<b>0.81</b>	
8. Normative Beliefs	0.22	0.32	0.25	0.27	0.16	0.07	0.26	<b>0.71</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for male entrepreneurs are summarised in Table 4.34.

Table 4.34 Summary of hypotheses testing for male entrepreneurs

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	0.15	1.39	0.11	Not supported
H2: Self-direction -> Normative Beliefs	-0.17	1.48	0.12	Not supported
H3: Self-direction -> Control Belief Strength	0.09	0.78	0.11	Not supported
H4: Stimulation -> Behavioural Belief Strength	0.23	2.09	0.11	Supported **
H5: Stimulation -> Normative Beliefs	0.27	2.68	0.10	Supported ***
H6: Stimulation -> Control Belief Strength	0.21	1.74	0.12	Supported *
H7: Achievement -> Behavioural Belief Strength	-0.03	0.30	0.11	Not supported
H8: Achievement -> Normative Beliefs	0.11	0.81	0.13	Not supported
H9: Achievement -> Control Belief Strength	-0.11	0.85	0.12	Not supported
H10: Power -> Behavioural Belief Strength	-0.04	0.35	0.11	Not supported
H11: Power -> Normative Beliefs	0.07	0.59	0.12	Not supported
H12: Power -> Control Belief Strength	0.14	1.21	0.12	Not supported
H13: Behavioural Belief Strength -> Export Intention	0.40	4.11	0.10	Not supported
H14: Normative Beliefs -> Export Intention	0.09	0.91	0.10	Not supported
H15: Control Belief Strength -> Export Intention	0.21	2.45	0.09	Supported **

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10

level

The significant paths for male entrepreneurs are summarised in Figure 4.4 below.

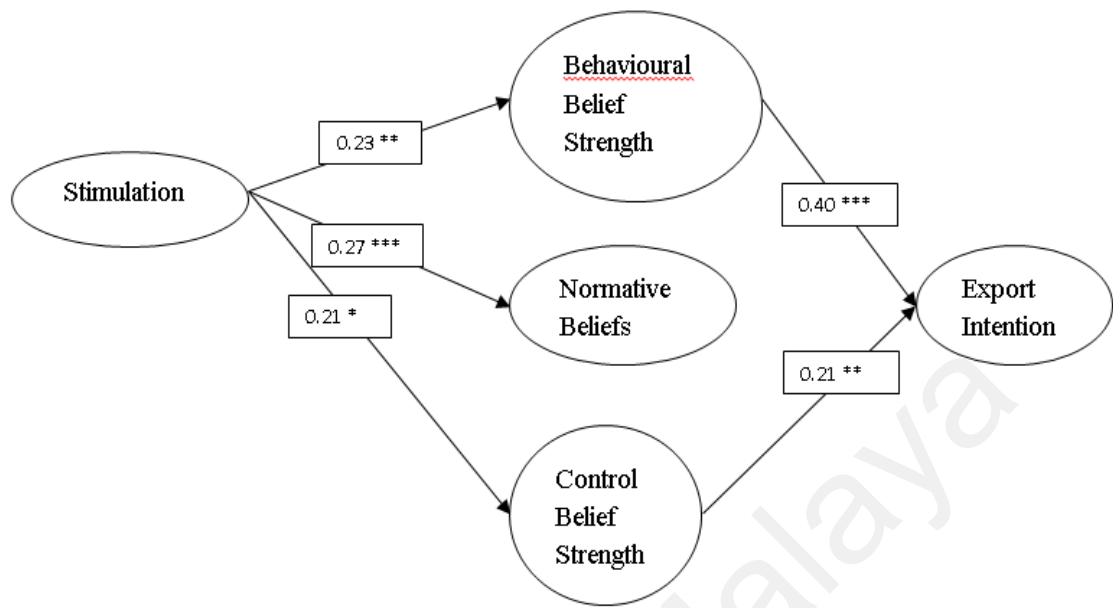


Figure 4.4 Significant paths for male entrepreneurs

#### 4.5.2.3 Multi-group analysis for gender

Female entrepreneurs appeared to have a higher level of Normative Beliefs compared to male entrepreneurs (Table 4.35). In terms of Export Intention, which is the dependent variable of interest in this study, both groups seemed to be keen to export to new market(s) in the future and *t*-test indicates that there is no difference in their Export Intention (Table 4.36).

Table 4.35 Mean comparisons for gender

Construct	Female entrepreneurs		Male entrepreneurs	
	Mean	Standard deviation	Mean	Standard deviation
Behavioural Belief Strength	1.59	0.56	1.59	0.61
Normative Beliefs	6.66	6.42	9.00	7.46
Control Belief Strength	1.84	0.57	1.85	0.68
Export Intention	1.31	0.52	1.32	0.66

Table 4.36 *T*-test for difference in Export Intention between female and male

entrepreneurs

	Female entrepreneurs	Male entrepreneurs	Significance
Export Intention	1.31	1.32	0.925

Table 4.37 tabulates the Centred value scores and ranking of value types by gender.

The results indicated that there is no difference in the ranking of value types by gender vis-à-vis aggregate sample as in Table 4.6. In other words, the ranking of the four entrepreneurial values by female and male entrepreneurs is in line with overall ranking. However, *t*-tests show that the differences are not significant for Self-direction, Achievement and Stimulation across gender (Table 4.38).

Table 4.37 Centred value scores and ranking of value types by gender

		Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Male	Mean	<b>-0.38</b>	0.02	0.19	0.29
	Standard deviation	0.53	0.50	0.64	0.63
	Ranking	1	2	3	4
Female	Mean	<b>-0.31</b>	<b>-0.08</b>	0.07	0.45
	Standard deviation	0.40	0.43	0.58	0.48
	Ranking	1	2	3	4

Table 4.38 *T*-test for difference in values between female and male entrepreneurs

	Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Gender	0.313	0.158	0.166	0.060*

Note: \* Significant at 0.10 level

Post measurement invariance test, the construct mean differences between female and male entrepreneurs are calculated (Table 4.39). Female and male entrepreneurs are different with respect to the construct of Normative Beliefs at 0.10 level, with female entrepreneurs being slightly higher in Normative Beliefs. Therefore, the difference in the unobserved Normative Beliefs is consistent with the observed mean of Normative Beliefs for female entrepreneurs.

Table 4.39 Construct mean differences between female and male entrepreneurs

Construct	Estimate	S.E.	C.R.	Significance
Self-direction	-0.091	0.114	-0.804	0.421
Stimulation	0.224	0.140	1.605	0.109
Achievement	0.040	0.108	0.366	0.715
Power	-0.109	0.137	-0.799	0.424
Behavioural Belief Strength	-0.018	0.087	-0.205	0.838
Normative Beliefs	0.210	0.125	1.676	0.094*
Control Belief Strength	-0.047	0.095	-0.488	0.625
Export Intention	0.017	0.081	0.205	0.838

Note: \* Significant at 0.10 level

The interpretation of multi-group analysis results is dependent on the approach adopted. Using the *t*-test, the calculated *t* value and degrees of freedom is compared with the critical value to determine its significance. Using the probability approach, if the probability calculated is smaller than the alpha level specified, it means that there is a significant difference between the two groups (Henseler et al., 2009). If the path coefficients are not significantly different, the inference is that the path between the two constructs is generalisable with respect of the two groups (Eberl, 2010).



For the path from Self-direction to Control Belief Strength, probability and *t*-test (homoscedastic) methods both indicate that there is a significant difference between female and male entrepreneurs (Table 4.40). Hence, this path is not generalisable across gender. For the path from Power to Control Belief Strength, the difference is indicated by *t*-test for heteroscedasticity only (Note: the relationship between Power and Control Belief Strength is heteroscedastic) but not probability (Table 4.40), thus supporting the argument that *t*-test is more liberal (Sarstedt et al., 2011). (Please refer to Section 4.4.1.3 for the results of homoscedasticity testing).

Overall, results indicate that hypothesis Number 16 which postulates that there is no difference in the structural model between female and male entrepreneurs is partially supported.

Table 4.40 Testing for path differences between female and male entrepreneurs

Path	<i>T</i> -test (homoscedastic)	<i>T</i> -test (heteroscedastic)	Probability
Self-Direction => Behavioural Belief Strength			0.20
Self-Direction => Normative Beliefs			0.12
Self-Direction => Control Belief Strength	*		0.05*
Stimulation => Behavioural Belief Strength			0.68
Stimulation => Normative Beliefs			0.09
Stimulation => Control Belief Strength			0.79
Achievement => Behavioural Belief Strength			0.29
Achievement => Normative Beliefs			0.78
Achievement => Control Belief Strength			0.50
Power => Behavioural Belief Strength			0.83
Power => Normative Beliefs			0.87
Power => Control Belief Strength	*	*	0.95
Behavioural Belief Strength => Export Intention			0.66
Normative Beliefs => Export Intention			0.27
Control Belief Strength => Export Intention			0.18

Notes: \*\* Significant at 0.05 level, \* Significant at 0.10 level. \* Not relevant

The  $R^2$  for female entrepreneurs' Normative Beliefs and Export Intention are higher than the aggregate sample and male entrepreneurs (Table 4.41). At the same time, the goodness-of-fit is also higher (Table 4.42). Therefore, the overall explanatory power of proposed integrative framework for female entrepreneurs is enhanced.

Table 4.41 Summary of coefficient of determination ( $R^2$ ) of endogenous constructs by gender

Construct	$R^2$ for aggregate sample	$R^2$ for female entrepreneurs	$R^2$ for male entrepreneurs
Behavioural Belief Strength	0.10	0.11	0.10
Normative Beliefs	0.09	<b>0.24</b>	0.09
Control Belief Strength	0.10	0.11	0.09
Export Intention	0.32	<b>0.43</b>	0.33

Table 4.42 Summary of goodness-of-fit (GoF) by gender

Group	GoF	GoF effect
Aggregate sample	0.32	Medium large
Female entrepreneurs	<b>0.38</b>	Large
Male entrepreneurs	0.31	Medium large

#### 4.5.2.4 Group analysis for Malay entrepreneurs

All item loadings are  $\geq 0.7$  and  $t$ -statistic is significant (Table 4.43).

Table 4.43 Indicator reliability for Malay entrepreneurs

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B3 <- Behavioural Belief Strength	0.8	0.09	8.82
B4 <- Behavioural Belief Strength	0.8	0.09	9.45
B5 <- Behavioural Belief Strength	0.8	0.11	7.06
C1 <- Control Belief Strength	0.7	0.08	8.25
C10 <- Control Belief Strength	0.8	0.06	13.48
C11 <- Control Belief Strength	0.7	0.07	9.41
C2 <- Control Belief Strength	0.7	0.09	7.86
C7 <- Control Belief Strength	0.8	0.04	19.27
C8 <- Control Belief Strength	0.7	0.07	9.54
C9 <- Control Belief Strength	0.8	0.05	17.61
I1 <- Export Intention	0.9	0.05	17.73
I2 <- Export Intention	0.9	0.06	15.03
I3 <- Export Intention	0.9	0.06	15.03
I4 <- Export Intention	0.8	0.14	5.68
SN10 <- Normative Beliefs	0.8	0.11	6.79
SN11 <- Normative Beliefs	0.9	0.13	6.56
SN12 <- Normative Beliefs	0.8	0.15	5.47
SN6 <- Normative Beliefs	0.8	0.13	5.88
SN7 <- Normative Beliefs	0.8	0.14	5.77
SN8 <- Normative Beliefs	0.7	0.18	4.01
SN9 <- Normative Beliefs	0.7	0.15	4.87
V1 <- Self-direction	0.9	0.06	15.80
V13 <- Achievement	0.9	0.22	3.82
V15 <- Stimulation	0.8	0.09	8.91
V17 <- Power	0.9	0.23	3.73

V22 <- Self-direction	0.8	0.10	7.98
V24 <- Achievement	0.7	0.22	3.43
V30 <- Stimulation	0.8	0.13	6.16
V32 <- Achievement	0.7	0.18	4.05
V39 <- Power	0.8	0.25	3.14
V4 <- Achievement	0.7	0.23	3.27
V6 <- Stimulation	0.8	0.10	8.06

The composite reliability and convergent validity are satisfactory (Table 4.44).

Table 4.44 Composite reliability and convergent validity for Malay entrepreneurs

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	0.80	0.58
Stimulation	0.83	0.62
Achievement	0.85	0.58
Power	0.80	0.57
Behavioural Belief Strength	0.84	0.64
Normative Beliefs	0.92	0.53
Control Belief Strength	0.89	0.51
Export Intention	0.92	0.74

The discriminant validity for Malay entrepreneurs is satisfactory (Tables 4.45 and 4.46).

Table 4.45 Discriminant validity – factor loadings and cross-loadings for Malay

entrepreneurs

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- direction	Stimulation	Normative Beliefs
B3	-0.1	<b>0.8</b>	0.3	0.2	0.0	0.1	0.0	0.0
B4	-0.1	<b>0.8</b>	0.2	0.4	0.0	0.2	0.1	0.1
B5	0.0	<b>0.8</b>	0.3	0.3	0.0	0.1	0.1	0.0
C1	0.1	0.2	<b>0.7</b>	0.3	0.2	0.2	0.2	-0.2
C10	0.3	0.2	<b>0.8</b>	0.3	0.2	0.3	0.2	0.1
C11	0.2	0.1	<b>0.7</b>	0.4	0.2	0.2	0.2	0.0
C2	0.0	0.4	<b>0.7</b>	0.3	0.1	0.2	0.2	-0.1
C7	0.1	0.2	<b>0.8</b>	0.4	0.2	0.2	0.1	0.0
C8	0.2	0.1	<b>0.7</b>	0.2	0.1	0.2	0.1	0.1
C9	0.1	0.3	<b>0.8</b>	0.4	0.2	0.3	0.2	0.1
I1	-0.1	0.3	0.4	<b>0.9</b>	0.1	0.1	0.1	0.2
I2	0.0	0.4	0.4	<b>0.9</b>	0.0	0.1	0.1	0.1
I3	0.0	0.3	0.4	<b>0.9</b>	0.1	0.0	0.0	0.2
I4	0.1	0.3	0.3	<b>0.8</b>	0.1	0.1	0.1	0.1
SN10	0.2	0.2	0.0	0.1	0.1	0.1	0.2	<b>0.8</b>
SN11	0.1	0.0	0.1	0.3	0.1	0.0	0.2	<b>0.9</b>
SN12	0.1	0.0	0.1	0.2	0.1	0.0	0.2	<b>0.8</b>
SN6	0.1	0.0	-0.1	0.1	0.2	0.0	0.2	<b>0.8</b>
SN7	0.1	0.1	0.0	0.1	0.1	0.0	0.2	<b>0.8</b>
SN8	0.1	0.1	0.1	0.2	0.1	0.1	0.1	<b>0.7</b>
SN9	0.1	0.0	-0.1	0.2	0.0	-0.1	0.1	<b>0.7</b>
V1	0.4	0.2	0.4	0.1	0.5	<b>0.9</b>	0.4	0.0
V13	<b>0.9</b>	-0.2	0.1	0.0	0.5	0.3	0.5	0.2
V15	0.4	0.0	0.2	0.2	0.4	0.4	<b>0.8</b>	0.2
V17	0.5	0.1	0.2	0.1	<b>0.9</b>	0.6	0.4	0.1
V22	0.5	0.1	0.2	0.0	0.5	<b>0.8</b>	0.5	0.0
V24	<b>0.7</b>	0.0	0.3	0.1	0.6	0.7	0.5	0.1
V30	0.5	0.1	0.2	0.0	0.5	0.4	<b>0.8</b>	0.1
V32	<b>0.7</b>	0.0	0.1	0.0	0.4	0.4	0.5	0.0
V39	0.5	0.0	0.2	0.1	<b>0.8</b>	0.5	0.5	0.0
V4	<b>0.7</b>	-0.1	0.1	-0.1	0.4	0.2	0.3	0.1
V6	0.5	0.1	0.2	0.1	0.4	0.5	<b>0.8</b>	0.1

Table 4.46 Discriminant validity – square root of AVE for Malay entrepreneurs

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.76</b>							
2. Behavioural Belief Strength	-0.09	<b>0.80</b>						
3. Control Belief Strength	0.20	0.31	<b>0.71</b>					
4. Export Intention	-0.01	0.38	0.46	<b>0.86</b>				
5. Power	0.66	-0.02	0.26	0.08	<b>0.75</b>			
6. Self-direction	0.51	0.19	0.35	0.07	0.62	<b>0.76</b>		
7. Stimulation	0.58	0.10	0.23	0.11	0.51	0.56	<b>0.79</b>	
8. Normative Beliefs	0.14	0.04	0.02	0.20	0.12	-0.01	0.22	<b>0.73</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for Malay entrepreneurs are summarised in Table 4.47.

Table 4.47 Summary of hypotheses testing for Malay entrepreneurs

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	0.32	2.18	0.15	Supported **
H2: Self-direction -> Normative Beliefs	-0.25	1.75	0.14	Supported *
H3: Self-direction -> Control Belief Strength	0.30	2.17	0.14	Supported **
H4: Stimulation -> Behavioural Belief Strength	0.12	0.92	0.13	Not supported
H5: Stimulation -> Normative Beliefs	0.29	2.06	0.14	Supported **
H6: Stimulation -> Control Belief Strength	0.04	0.31	0.12	Not supported
H7: Achievement -> Behavioural Belief Strength	-0.24	1.64	0.14	Not supported
H8: Achievement -> Normative Beliefs	0.03	0.17	0.18	Not supported
H9: Achievement -> Control Belief Strength	-0.01	0.09	0.16	Not supported
H10: Power -> Behavioural Belief Strength	-0.13	0.80	0.16	Not supported
H11: Power -> Normative Beliefs	0.10	0.55	0.19	Not supported
H12: Power -> Control Belief Strength	0.07	0.42	0.16	Not supported
H13: Behavioural Belief Strength -> Export Intention	0.26	2.32	0.11	Supported **
H14: Normative Beliefs -> Export Intention	0.18	1.21	0.15	Not supported
H15: Control Belief Strength -> Export Intention	0.38	3.88	0.10	Supported ***

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10

level

The significant paths for Malay entrepreneurs are summarised in Figure 4.5 below.

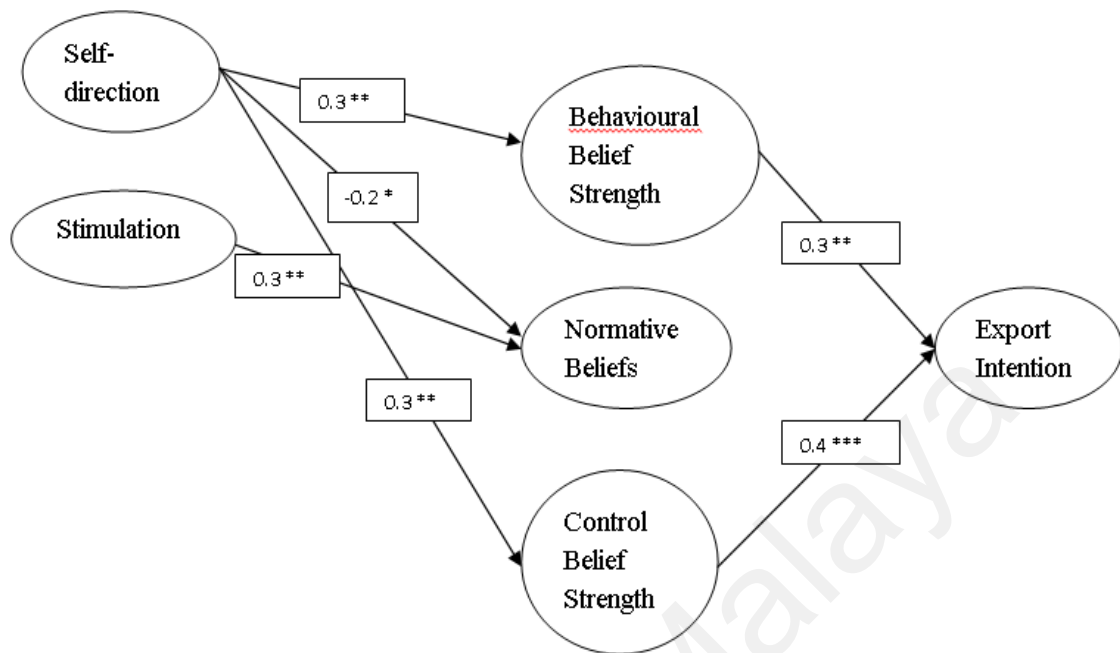


Figure 4.5 Significant paths for Malay entrepreneurs

#### 4.5.2.5 Group analysis for Chinese entrepreneurs

The means and standard deviations for Chinese entrepreneurs are depicted in Table 4.48.

Table 4.48 Means and standard deviations for Chinese entrepreneurs (n = 130)

Construct	Mean	Standard deviation
Self-direction - Mean of raw rating	2.33	0.79
Stimulation - Mean of raw rating	3.05	1.03
Achievement - Mean of raw rating	2.75	0.89
Power - Mean of raw rating	3.10	0.94
Behavioural Belief Strength	1.65	0.64
Normative Beliefs	10.81	7.82
Control Belief Strength	1.99	0.70
Export Intention	1.40	0.73

All item loadings are  $\geq 0.7$  and *t*-statistic is significant (Table 4.49).



Table 4.49 Indicator reliability for Chinese entrepreneurs

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B1 <- Behavioural Belief Strength	0.8	0.05	15.84
B2 <- Behavioural Belief Strength	0.8	0.03	26.38
B3 <- Behavioural Belief Strength	0.8	0.04	20.16
B4 <- Behavioural Belief Strength	0.9	0.03	30.47
B5 <- Behavioural Belief Strength	0.8	0.02	35.74
C1 <- Control Belief Strength	0.8	0.05	15.03
C10 <- Control Belief Strength	0.7	0.10	7.35
C11 <- Control Belief Strength	0.7	0.08	8.53
C2 <- Control Belief Strength	0.7	0.07	9.97
C5 <- Control Belief Strength	0.8	0.05	14.78
C7 <- Control Belief Strength	0.8	0.07	10.52
C8 <- Control Belief Strength	0.7	0.08	9.41
C9 <- Control Belief Strength	0.8	0.07	11.62
I1 <- Export Intention	0.9	0.02	46.39
I2 <- Export Intention	1.0	0.02	52.51
I3 <- Export Intention	1.0	0.02	58.28
I4 <- Export Intention	0.9	0.02	41.83
SN10 <- Normative Beliefs	0.7	0.11	5.67
SN11 <- Normative Beliefs	0.7	0.10	7.15
SN12 <- Normative Beliefs	0.7	0.12	5.69
SN4 <- Normative Beliefs	0.7	0.09	7.42
SN7 <- Normative Beliefs	0.7	0.11	6.22
SN8 <- Normative Beliefs	0.8	0.08	10.24
SN9 <- Normative Beliefs	0.7	0.09	8.16
V1 <- Self-direction	0.9	0.16	5.82

V15 <- Stimulation	0.8	0.15	5.11
V17 <- Power	0.7	0.24	2.99
V22 <- Self-direction	0.7	0.19	3.60
V24 <- Achievement	0.7	0.18	3.99
V32 <- Achievement	0.9	0.17	5.43
V39 <- Power	1.0	0.28	3.56
V6 <- Stimulation	0.9	0.11	8.11

The composite reliability and convergent validity are satisfactory (Table 4.50).

Table 4.50 Composite reliability and convergent validity for Chinese entrepreneurs

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	0.79	0.57
Stimulation	0.82	0.61
Achievement	0.80	0.51
Power	0.84	0.73
Behavioural Belief Strength	0.91	0.67
Normative Beliefs	0.88	0.51
Control Belief Strength	0.92	0.50
Export Intention	0.97	0.90

The discriminant validity for Chinese entrepreneurs is satisfactory (Tables 4.51 and 4.52).

Table 4.51 Discriminant validity – factor loadings and cross-loadings for Chinese  
entrepreneurs

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- direction	Stimulation	Normative Beliefs
B1	0.2	<b>0.8</b>	0.5	0.5	0.1	0.1	0.2	0.3
B2	0.1	<b>0.8</b>	0.6	0.6	0.1	0.2	0.2	0.3
B3	0.1	<b>0.8</b>	0.3	0.4	0.1	0.2	0.2	0.2
B4	0.2	<b>0.9</b>	0.5	0.4	0.2	0.2	0.2	0.2
B5	0.2	<b>0.8</b>	0.4	0.5	0.1	0.3	0.3	0.3
C1	0.1	0.6	<b>0.8</b>	0.4	0.2	0.1	0.2	0.2
C10	0.1	0.4	<b>0.7</b>	0.2	0.2	0.1	0.1	0.2
C11	0.0	0.3	<b>0.7</b>	0.2	0.2	0.1	0.2	0.1
C2	0.1	0.5	<b>0.7</b>	0.5	0.1	0.1	0.1	0.2
C5	0.0	0.5	<b>0.8</b>	0.3	0.1	0.1	0.2	0.3
C7	0.1	0.5	<b>0.8</b>	0.3	0.3	0.2	0.2	0.2
C8	0.0	0.3	<b>0.7</b>	0.2	0.1	0.1	0.2	0.1
C9	0.2	0.4	<b>0.8</b>	0.2	0.3	0.3	0.3	0.2
I1	0.1	0.6	0.4	<b>0.9</b>	0.1	0.1	0.1	0.4
I2	0.1	0.6	0.4	<b>1.0</b>	0.1	0.1	0.1	0.3
I3	0.1	0.6	0.4	<b>1.0</b>	0.0	0.1	0.1	0.3
I4	0.1	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.2
SN10	0.2	0.2	0.1	0.2	0.1	0.1	0.0	<b>0.7</b>
SN11	0.1	0.3	0.2	0.2	0.0	0.0	0.2	<b>0.7</b>
SN12	0.1	0.3	0.3	0.3	0.1	0.0	0.1	<b>0.7</b>
SN4	0.1	0.2	0.1	0.1	0.1	0.1	0.1	<b>0.7</b>
SN7	0.1	0.1	0.1	0.1	0.0	0.0	0.1	<b>0.7</b>
SN8	0.1	0.2	0.2	0.2	0.0	-0.1	0.1	<b>0.8</b>
SN9	0.2	0.3	0.2	0.3	0.1	0.0	0.0	<b>0.7</b>
V1	0.3	0.3	0.2	0.1	0.3	<b>0.9</b>	0.4	0.0
V15	0.4	0.2	0.2	0.0	0.3	0.3	<b>0.8</b>	0.0
V17	0.4	0.0	0.0	0.0	<b>0.7</b>	0.3	0.2	0.0
V22	0.4	0.1	0.1	0.1	0.3	<b>0.7</b>	0.6	0.0
V24	<b>0.7</b>	0.0	0.0	0.0	0.4	0.3	0.4	0.1
V32	<b>0.9</b>	0.2	0.1	0.1	0.4	0.4	0.5	0.2
V39	0.5	0.1	0.2	0.1	<b>1.0</b>	0.4	0.3	0.1
V6	0.4	0.3	0.2	0.1	0.3	0.6	<b>0.9</b>	0.1

Table 4.52 Discriminant validity – square root of AVE for Chinese entrepreneurs

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.71</b>							
2. Behavioural Belief Strength	0.20	<b>0.82</b>						
3. Control Belief Strength	0.10	0.56	<b>0.71</b>					
4. Export Intention	0.10	0.59	0.41	<b>0.95</b>				
5. Power	0.53	0.12	0.20	0.07	<b>0.86</b>			
6. Self-direction	0.39	0.25	0.17	0.11	0.38	<b>0.75</b>		
7. Stimulation	0.50	0.28	0.23	0.10	0.33	0.55	<b>0.78</b>	
8. Normative Beliefs	0.20	0.33	0.26	0.30	0.10	0.00	0.12	<b>0.71</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for Chinese entrepreneurs are summarised in Table 4.53.

Table 4.53 Summary of hypotheses testing for Chinese entrepreneurs

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	0.12	1.09	0.11	Not supported
H2: Self-direction -> Normative Beliefs	-0.13	0.95	0.13	Not supported
H3: Self-direction -> Control Belief Strength	0.03	0.27	0.10	Not supported
H4: Stimulation -> Behavioural Belief Strength	0.19	1.52	0.12	Not supported
H5: Stimulation -> Normative Beliefs	0.09	0.60	0.14	Not supported
H6: Stimulation -> Control Belief Strength	0.21	1.66	0.13	Supported *
H7: Achievement -> Behavioural Belief Strength	0.06	0.46	0.14	Not supported
H8: Achievement -> Normative Beliefs	0.21	1.17	0.18	Not supported
H9: Achievement -> Control Belief Strength	-0.12	0.69	0.17	Not supported
H10: Power -> Behavioural Belief Strength	-0.02	0.20	0.12	Not supported
H11: Power -> Normative Beliefs	0.01	0.06	0.14	Not supported
H12: Power -> Control Belief Strength	0.18	1.17	0.16	Not supported
H13: Behavioural Belief Strength -> Export Intention	0.49	4.96	0.10	Supported ***
H14: Normative Beliefs -> Export Intention	0.11	1.03	0.11	Not supported
H15: Control Belief Strength -> Export Intention	0.10	1.07	0.09	Not supported

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10

level

The significant paths for Chinese entrepreneurs are summarised in Figure 4.6

below.

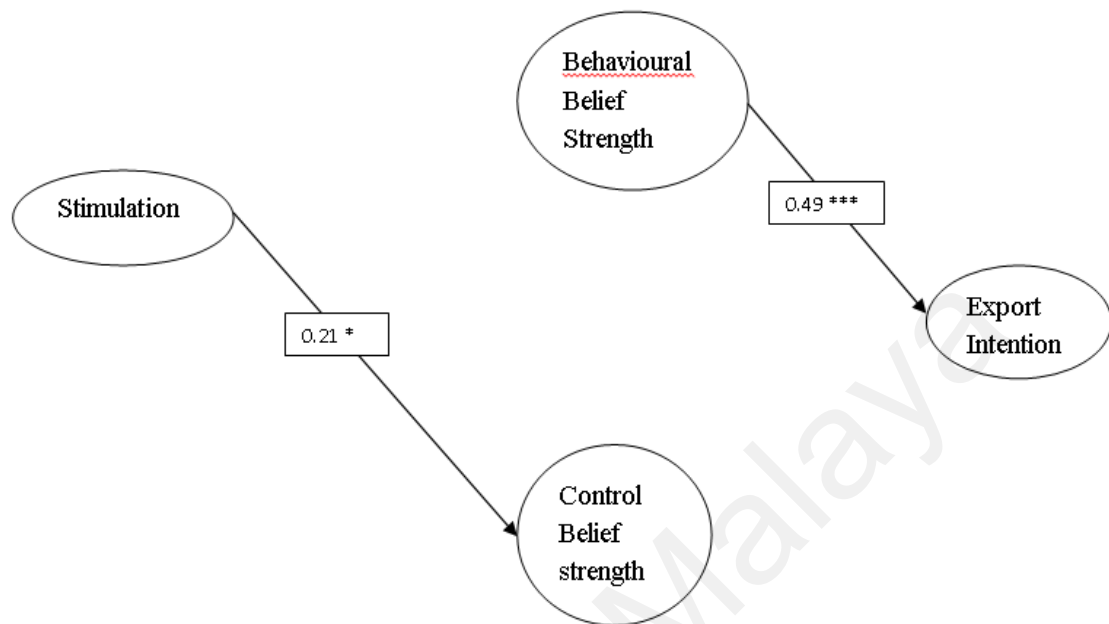


Figure 4.6 Significant paths for Chinese entrepreneurs

#### 4.5.2.6 Multi-group analysis for ethnic groups

Malay entrepreneurs exhibit higher levels of Behavioural Belief Strength, Normative Beliefs, Control Belief Strength and Export Intention compared with Chinese entrepreneurs (Table 4.54).

Table 4.54 Mean comparisons for ethnic groups

Construct	Malay entrepreneurs		Chinese entrepreneurs	
	Mean	Standard deviation	Mean	Standard deviation
Behavioural Belief Strength	1.49	0.51	1.65	0.64
Normative Beliefs	5.28	5.05	10.81	7.82
Control Belief Strength	1.68	0.52	1.99	0.70
Export Intention	1.21	0.43	1.40	0.73

The *t*-test reveals significant differences between Malay and Chinese small and medium-sized entrepreneurs (Table 4.55). The Malay entrepreneurs seem more interested to export to new market(s) compared with the Chinese entrepreneurs. Even among exporters, Malay entrepreneurs have higher intention than Chinese to export to new market(s) (Table 4.56).

Table 4.55 *T*-test for difference in Export Intention between Malay and Chinese entrepreneurs

	Malay entrepreneurs	Chinese entrepreneurs	Significance
Export Intention	1.21	1.40	0.013**

Note: \*\* Significant at 0.05 level

Table 4.56 *T*-test for difference in Export Intention between Malay exporters and Chinese exporters

Exporters	Malays	Chinese	Significance
Export Intention	1.12	1.29	0.015**

Note: \*\* Significant at 0.05 level

Table 4.57 presents the Centred value scores and ranking of value types by ethnicity. The results indicate that there is no difference in the ranking of value types by ethnic group compared to aggregate sample as in Table 4.6. This means that the ranking of the four entrepreneurial values by Malay and Chinese entrepreneurs is similar to overall ranking.

Consistent with Table 4.6, the gap between Self-direction and Achievement seems to be wide for entrepreneurs from different backgrounds. The results also indicate that Self-direction is most appealing for Chinese entrepreneurs (-0.44) and lesser for Malay entrepreneurs (-0.26) and *t*-test results confirmed the significant difference (See Table 4.58). Malay and Chinese entrepreneurs also differ in the importance of Stimulation, albeit both ranked Stimulation below average for the four value types investigated. Overall, the *t*-test results suggest that the differences in Self-direction and Stimulation can be attributable to ethnicity, not gender or current exporting status.

Table 4.57 Centred value scores and ranking of value types by ethnicity

		Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Malay entrepreneurs	Mean	<b>-0.257</b>	0.002	0.007	0.334
	Standard deviation	0.436	0.465	0.516	0.531
	Ranking	1	2	3	4
Chinese entrepreneurs	Mean	<b>-0.440</b>	<b>-0.019</b>	0.280	0.332
	Standard deviation	0.532	0.504	0.675	0.640
	Ranking	1	2	3	4

Table 4.58 *T*-test for difference between Malay and Chinese entrepreneurs

	Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Ethnicity	0.005 ***	0.741	0.000 ***	0.978

Notes: \*\*\*Significant at 0.01 level, \*\* Significant at 0.05 level



The means for all constructs differ significantly between Malay and Chinese entrepreneurs. Given that Chinese entrepreneurs are designated as the reference group and thus, their construct means are fixed to zero, the numbers shown in Table 4.59 is the construct mean differences between the two groups. The findings are interpreted as Malay entrepreneurs having significantly higher means for all constructs than Chinese entrepreneurs (due to the scaling of the responses used in this study, smaller number indicates higher mean).

Table 4.59 Construct mean differences between Malay and Chinese entrepreneurs

Construct	Estimate	S.E.	C.R.	Significance
Self-direction	-0.327	0.108	-3.020	0.003***
Stimulation	-0.773	0.143	-5.412	0.000***
Achievement	-0.512	0.109	-4.700	0.000***
Power	-0.431	0.130	-3.325	0.000***
Behavioural Belief Strength	-0.289	0.079	-3.674	0.000***
Normative Beliefs	-0.702	0.145	-4.838	0.000***
Control Belief Strength	-0.277	0.089	-3.127	0.002***
Export Intention	-0.191	0.073	-2.609	0.009***

Note: \*\*\* Significant at 0.01 level

For the path from Self-Direction to Control Belief Strength, probability and *t*-test (homoscedastic) indicate that there is a significant difference between Malay and Chinese entrepreneurs at 0.10 level (Table 4.60). Hence, this path is not generalisable for these two ethnic groups. For the path from Control Belief Strength to Export Intention, *t*-test (heteroscedastic) and probability produced significant difference at 0.05 level (Table 4.60). Consequently, this path is also not generalisable for these two ethnic groups.

Overall, results indicate that hypothesis Number 17 which postulates that there is no difference in the structural model between Malay and Chinese small and medium-sized entrepreneurs is partially supported.

Table 4.60 Testing for path differences between Malay and Chinese entrepreneurs

Path	<i>T</i> -test (homoscedastic)	<i>T</i> -test (heteroscedastic)	Probability
Self-Direction => Behavioural Belief Strength			0.14
Self-Direction => Normative Beliefs			0.75
Self-Direction => Control Belief Strength	*		0.06*
Stimulation => Behavioural Belief Strength			0.66
Stimulation => Normative Beliefs			0.15
Stimulation => Control Belief Strength			0.84
Achievement => Behavioural Belief Strength			0.92
Achievement => Normative Beliefs			0.77
Achievement => Control Belief Strength			0.33
Power => Behavioural Belief Strength			0.70
Power => Normative Beliefs			0.33
Power => Control Belief Strength			0.71
Behavioural Belief Strength => Export Intention			0.94
Normative Beliefs => Export Intention			0.37
Control Belief Strength => Export Intention	**	**	0.03**

Notes: \*\* Significant at 0.05 level, \* Significant at 0.10 level. \*\* Not relevant

The  $R^2$  of Export Intention for Chinese entrepreneurs improved from 0.32 to 0.36, whereas for Malay entrepreneurs it is about the same, meaning the proposed integrative framework explained more variance for Chinese entrepreneurs than aggregate sample and Malay entrepreneurs (Table 4.61). On the other hand, the goodness-of-fit for both groups are similar to aggregate sample (Table 4.62).

Table 4.61 Summary of coefficient of determination ( $R^2$ ) of endogenous constructs by ethnicity

Construct	$R^2$ for aggregate sample	$R^2$ for Malay entrepreneurs	$R^2$ for Chinese entrepreneurs
Behavioural Belief Strength	0.10	0.10	0.09
Normative Beliefs	0.09	0.08	0.05
Control Belief Strength	0.10	0.13	0.08
Export Intention	0.32	0.31	<b>0.36</b>

Table 4.62 Summary of goodness-of-fit (GoF) by ethnicity

Group	GoF	GoF effect
Aggregate sample	0.32	Medium large
Malay entrepreneurs	0.30	Medium large
Chinese entrepreneurs	0.30	Medium large

#### 4.5.2.7 Group analysis for exporters

For exporters segment, all the item loadings are  $\geq 0.7$  and  $t$ -statistic are significant

(Table 4.63).

Table 4.63 Indicator reliability for exporters

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B1 <- Behavioural Belief Strength	0.7	0.06	10.55
B2 <- Behavioural Belief Strength	0.8	0.03	23.22
B3 <- Behavioural Belief Strength	0.8	0.05	17.19
B4 <- Behavioural Belief Strength	0.8	0.03	24.65
B5 <- Behavioural Belief Strength	0.8	0.03	23.01
C1 <- Control Belief Strength	0.7	0.07	9.87
C10 <- Control Belief Strength	0.7	0.08	9.13
C11 <- Control Belief Strength	0.7	0.07	9.76
C2 <- Control Belief Strength	0.7	0.07	10.08
C3 <- Control Belief Strength	0.7	0.06	11.36
C5 <- Control Belief Strength	0.7	0.05	13.45
C6 <- Control Belief Strength	0.7	0.08	7.96
C7 <- Control Belief Strength	0.8	0.07	11.70
C8 <- Control Belief Strength	0.7	0.06	12.81
C9 <- Control Belief Strength	0.8	0.06	14.07
I1 <- Export Intention	0.9	0.04	22.71
I2 <- Export Intention	0.9	0.03	31.41
I3 <- Export Intention	0.9	0.02	46.21
I4 <- Export Intention	0.9	0.04	25.61
SN1 <- Normative Beliefs	0.7	0.08	9.22
SN10 <- Normative Beliefs	0.7	0.07	11.05
SN2 <- Normative Beliefs	0.7	0.07	9.73

SN3 <- Normative Beliefs	0.8	0.07	12.01
SN4 <- Normative Beliefs	0.7	0.08	8.84
SN5 <- Normative Beliefs	0.7	0.07	10.11
SN6 <- Normative Beliefs	0.8	0.06	12.68
SN7 <- Normative Beliefs	0.7	0.09	7.41
SN8 <- Normative Beliefs	0.7	0.08	8.80
V1 <- Self-direction	0.9	0.04	21.28
V11 <- Self-direction	0.7	0.11	6.01
V13 <- Achievement	0.7	0.12	6.18
V15 <- Stimulation	0.8	0.07	10.84
V17 <- Power	0.8	0.12	6.44
V2 <- Power	0.7	0.18	3.92
V22 <- Self-direction	0.7	0.11	6.55
V24 <- Achievement	0.8	0.09	8.54
V30 <- Stimulation	0.8	0.07	11.02
V32 <- Achievement	0.8	0.09	9.10
V39 <- Power	0.8	0.14	5.65
V4 <- Achievement	0.7	0.12	5.70
V6 <- Stimulation	0.9	0.04	22.91

The composite reliability and convergent validity are satisfactory (Table 4.64)

Table 4.64 Composite reliability and convergent validity for exporters

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	0.80	0.50
Stimulation	0.85	0.65
Achievement	0.85	0.58
Power	0.81	0.59
Behavioural Belief Strength	0.88	0.59
Normative Beliefs	0.91	0.53
Control Belief Strength	0.92	0.50
Export Intention	0.96	0.86

The discriminant validity is satisfactory (Tables 4.65 and 4.66).

Table 4.65 Discriminant validity – factor loadings and cross-loadings for exporters

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export intention	Power	Self- direction	Stimulation	Normative Beliefs
B1	0.2	<b>0.7</b>	0.4	0.4	0.1	0.2	0.2	0.2
B2	0.1	<b>0.8</b>	0.5	0.5	0.1	0.3	0.1	0.1
B3	0.0	<b>0.8</b>	0.3	0.4	0.0	0.2	0.1	0.0
B4	0.1	<b>0.8</b>	0.5	0.4	0.1	0.3	0.2	0.1
B5	0.1	<b>0.8</b>	0.3	0.5	0.0	0.3	0.3	0.2
C1	0.0	0.5	<b>0.7</b>	0.3	0.1	0.2	0.2	0.0
C10	0.2	0.3	<b>0.7</b>	0.2	0.2	0.2	0.2	0.1
C11	0.0	0.2	<b>0.7</b>	0.3	0.1	0.1	0.2	0.1
C2	0.0	0.5	<b>0.7</b>	0.4	0.0	0.1	0.1	0.0
C3	0.1	0.3	<b>0.7</b>	0.2	0.0	0.1	0.2	0.3
C5	0.0	0.5	<b>0.7</b>	0.3	0.0	0.1	0.1	0.1
C6	0.0	0.3	<b>0.7</b>	0.2	0.0	0.0	0.1	0.3
C7	0.1	0.5	<b>0.8</b>	0.4	0.1	0.2	0.1	0.1
C8	0.1	0.3	<b>0.7</b>	0.2	0.1	0.2	0.2	0.2
C9	0.2	0.3	<b>0.8</b>	0.2	0.2	0.3	0.4	0.2
I1	0.1	0.5	0.3	<b>0.9</b>	0.1	0.1	0.1	0.1
I2	0.1	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.1
I3	0.1	0.6	0.4	<b>0.9</b>	0.1	0.1	0.1	0.1
I4	0.2	0.5	0.3	<b>0.9</b>	0.1	0.1	0.1	0.1
SN1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	<b>0.7</b>
SN10	0.3	0.2	0.2	0.1	0.2	0.2	0.2	<b>0.7</b>
SN2	0.3	0.0	0.1	0.1	0.2	0.0	0.2	<b>0.7</b>
SN3	0.2	0.1	0.1	0.0	0.2	0.1	0.1	<b>0.8</b>
SN4	0.2	0.2	0.1	0.1	0.1	0.2	0.2	<b>0.7</b>
SN5	0.2	0.1	0.1	0.0	0.1	0.2	0.2	<b>0.7</b>
SN6	0.3	0.0	0.1	0.0	0.2	0.1	0.2	<b>0.8</b>
SN7	0.2	0.1	0.1	0.0	0.0	0.1	0.2	<b>0.7</b>
SN8	0.2	0.2	0.2	0.1	0.1	0.0	0.2	<b>0.7</b>
V1	0.3	0.3	0.2	0.2	0.4	<b>0.9</b>	0.4	0.2
V11	0.3	0.2	0.1	0.1	0.3	<b>0.7</b>	0.3	0.0
V13	<b>0.7</b>	0.1	0.1	0.1	0.5	0.3	0.3	0.2
V15	0.3	0.1	0.2	0.1	0.3	0.3	<b>0.8</b>	0.1
V17	0.5	0.1	0.0	0.1	<b>0.8</b>	0.4	0.2	0.1
V2	0.4	0.0	0.1	0.2	<b>0.7</b>	0.3	0.3	0.1
V22	0.4	0.2	0.1	0.1	0.4	<b>0.7</b>	0.5	0.1
V24	<b>0.8</b>	0.1	0.0	0.1	0.5	0.4	0.5	0.2
V30	0.5	0.1	0.1	0.0	0.4	0.4	<b>0.8</b>	0.3
V32	<b>0.8</b>	0.2	0.1	0.1	0.4	0.4	0.5	0.3
V39	0.5	0.1	0.1	0.0	<b>0.8</b>	0.5	0.3	0.2

V4	<b>0.7</b>	0.0	0.1	0.1	0.5	0.3	0.4	0.2
V6	0.5	0.3	0.2	0.1	0.3	0.5	<b>0.9</b>	0.2

Table 4.66 Discriminant validity – square root of AVE for exporters

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.76</b>							
2. Behavioural Belief Strength	0.13	<b>0.77</b>						
3. Control Belief Strength	0.09	0.51	<b>0.71</b>					
4. Export Intention	0.13	0.57	0.38	<b>0.93</b>				
5. Power	0.59	0.10	0.13	0.13	<b>0.77</b>			
6. Self-direction	0.47	0.32	0.21	0.15	0.50	<b>0.71</b>		
7. Stimulation	0.53	0.24	0.23	0.10	0.39	0.55	<b>0.81</b>	
8. Normative Beliefs	0.30	0.15	0.18	0.11	0.19	0.16	0.25	<b>0.73</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for exporters are summarised in Table 4.67.



Table 4.67 Summary of hypotheses testing for exporters

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	0.32	3.76	0.08	Supported ***
H2: Self-direction -> Normative Beliefs	-0.04	0.36	0.11	Not supported
H3: Self-direction -> Control Belief Strength	0.12	1.22	0.10	Not supported
H4: Stimulation -> Behavioural Belief Strength	0.12	1.10	0.10	Not supported
H5: Stimulation -> Normative Beliefs	0.15	1.29	0.12	Not supported
H6: Stimulation -> Control Belief Strength	0.19	1.70	0.11	Supported *
H7: Achievement -> Behavioural Belief Strength	-0.04	0.37	0.11	Not supported
H8: Achievement -> Normative Beliefs	0.23	1.87	0.12	Supported *
H9: Achievement -> Control Belief Strength	-0.10	0.72	0.13	Not supported
H10: Power -> Behavioural Belief Strength	-0.08	0.69	0.11	Not supported
H11: Power -> Normative Beliefs	0.01	0.13	0.11	Not supported
H12: Power -> Control Belief Strength	0.05	0.34	0.13	Not supported
H13: Behavioural Belief Strength -> Export Intention	0.51	7.85	0.07	Supported ***
H14: Normative Beliefs -> Export Intention	0.02	0.25	0.06	Not supported
H15: Control Belief Strength -> Export Intention	0.12	1.41	0.08	Not supported

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10 level

The significant paths for exporters are summarised in Figure 4.7 below.

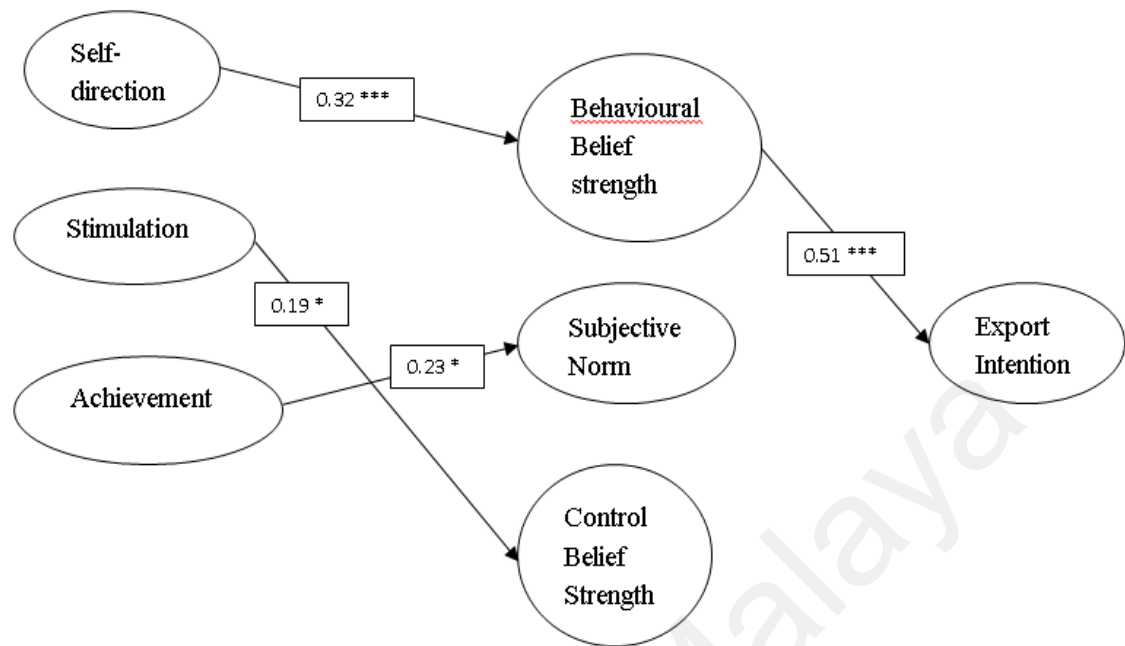


Figure 4.7 Significant paths for exporters

#### 4.5.2.8 Group analysis for non-exporters

All the item loadings for non-exporters segment are  $\geq 0.7$  and  $t$ -statistic are significant (Table 4.68).

Table 4.68 Indicator reliability for non-exporters

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B3 <- Behavioural Belief Strength	0.9	0.03	26.45
B4 <- Behavioural Belief Strength	0.8	0.06	13.06
B5 <- Behavioural Belief Strength	0.9	0.03	31.63
C1 <- Control Belief Strength	0.8	0.07	11.56
C10 <- Control Belief Strength	0.7	0.12	6.04
C2 <- Control Belief Strength	0.7	0.07	11.16
C3 <- Control Belief Strength	0.7	0.09	8.02
C5 <- Control Belief Strength	0.8	0.08	10.69
C6 <- Control Belief Strength	0.7	0.09	8.49
C7 <- Control Belief Strength	0.8	0.08	9.81
C9 <- Control Belief Strength	0.8	0.09	8.97
I1 <- Export Intention	0.9	0.02	38.95
I2 <- Export Intention	1.0	0.02	47.30
I3 <- Export Intention	0.9	0.03	34.85
I4 <- Export Intention	0.9	0.08	11.28
SN1 <- Normative Beliefs	0.7	0.13	5.21
SN10 <- Normative Beliefs	0.7	0.09	8.40
SN11 <- Normative Beliefs	0.9	0.04	23.99
SN12 <- Normative Beliefs	0.9	0.05	16.62
SN3 <- Normative Beliefs	0.7	0.11	6.40
SN4 <- Normative Beliefs	0.8	0.06	13.27
SN5 <- Normative Beliefs	0.7	0.08	9.33
SN6 <- Normative Beliefs	0.8	0.06	11.93
SN7 <- Normative Beliefs	0.8	0.06	13.48
SN8 <- Normative Beliefs	0.8	0.08	9.63

SN9 <- Normative Beliefs	0.8	0.11	7.27
V1 <- Self-direction	0.9	0.28	3.24
V15 <- Stimulation	0.9	0.07	11.96
V17 <- Power	0.8	0.11	7.83
V22 <- Self-direction	0.8	0.23	3.45
V24 <- Achievement	0.8	0.17	4.45
V30 <- Stimulation	0.8	0.07	11.08
V32 <- Achievement	0.9	0.15	5.99
V39 <- Power	1.0	0.05	19.15
V6 <- Stimulation	0.8	0.10	7.86

The composite reliability and convergent validity are satisfactory (Table 4.69).

Table 4.69 Composite reliability and convergent validity for non-exporters

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	0.81	0.52
Stimulation	0.86	0.67
Achievement	0.79	0.57
Power	0.89	0.80
Behavioural Belief Strength	0.87	0.57
Normative Beliefs	0.94	0.59
Control Belief Strength	0.93	0.53
Export Intention	0.96	0.86

The discriminant validity for non-exporters is satisfactory (Tables 4.70 and 4.71)

Table 4.70 Discriminant validity – factor loadings and cross-loadings for non-exporters

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- direction	Stimulation	Normative Beliefs
B3	0.2	<b>0.9</b>	0.5	0.5	0.2	0.1	0.3	0.3
B4	0.2	<b>0.8</b>	0.4	0.4	0.1	0.2	0.3	0.2
B5	0.3	<b>0.9</b>	0.6	0.5	0.2	0.3	0.4	0.4
C1	0.3	0.5	<b>0.8</b>	0.4	0.4	0.3	0.2	0.2
C10	0.3	0.4	<b>0.7</b>	0.3	0.3	0.2	0.2	0.2
C2	0.1	0.3	<b>0.7</b>	0.6	0.2	0.3	0.2	0.2
C3	0.0	0.4	<b>0.7</b>	0.5	0.0	0.1	0.1	0.2
C5	0.3	0.5	<b>0.8</b>	0.4	0.4	0.3	0.3	0.3
C6	0.2	0.3	<b>0.7</b>	0.3	0.4	0.2	0.2	0.2
C7	0.3	0.4	<b>0.8</b>	0.4	0.5	0.3	0.4	0.3
C9	0.3	0.5	<b>0.8</b>	0.4	0.4	0.3	0.4	0.2
I1	0.1	0.5	0.5	<b>0.9</b>	0.2	0.1	0.2	0.6
I2	0.0	0.4	0.5	<b>1.0</b>	0.1	0.1	0.2	0.4
I3	0.0	0.5	0.5	<b>0.9</b>	0.1	0.0	0.1	0.4
I4	0.1	0.4	0.4	<b>0.9</b>	0.2	0.1	0.2	0.3
SN1	0.0	0.4	0.1	0.2	0.1	-0.1	0.1	<b>0.7</b>
SN10	0.0	0.3	0.1	0.3	0.0	-0.1	0.1	<b>0.7</b>
SN11	0.1	0.3	0.3	0.5	0.2	-0.1	0.2	<b>0.9</b>
SN12	0.1	0.3	0.3	0.5	0.3	-0.1	0.2	<b>0.9</b>
SN3	0.1	0.3	0.2	0.3	0.2	-0.1	0.2	<b>0.7</b>
SN4	0.1	0.5	0.5	0.3	0.3	0.0	0.3	<b>0.8</b>
SN5	0.0	0.3	0.3	0.3	0.2	-0.1	0.2	<b>0.7</b>
SN6	0.0	0.3	0.2	0.3	0.0	0.0	0.3	<b>0.8</b>
SN7	0.0	0.4	0.2	0.4	0.1	0.0	0.3	<b>0.8</b>
SN8	0.0	0.3	0.3	0.5	0.1	-0.1	0.2	<b>0.8</b>
SN9	0.0	0.3	0.1	0.2	0.1	-0.1	0.1	<b>0.8</b>
V1	0.4	0.2	0.3	0.1	0.5	<b>0.9</b>	0.5	-0.1
V15	0.4	0.4	0.3	0.2	0.5	0.5	<b>0.9</b>	0.3
V17	0.5	0.0	0.2	0.0	<b>0.8</b>	0.5	0.5	0.2
V22	0.6	0.1	0.2	0.0	0.4	<b>0.8</b>	0.6	0.0
V24	<b>0.8</b>	0.1	0.2	0.0	0.6	0.5	0.5	0.0
V30	0.6	0.3	0.3	0.1	0.4	0.4	<b>0.8</b>	0.2
V32	<b>0.9</b>	0.3	0.3	0.1	0.5	0.5	0.6	0.1
V39	0.6	0.2	0.4	0.2	<b>1.0</b>	0.5	0.6	0.2
V6	0.6	0.3	0.2	0.2	0.5	0.7	<b>0.8</b>	0.1

Table 4.71 Discriminant validity – square root of AVE for non-exporters

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.75</b>							
2. Behavioural Belief Strength	0.27	<b>0.76</b>						
3. Control Belief Strength	0.28	0.52	<b>0.73</b>					
4. Export Intention	0.06	0.51	0.56	<b>0.93</b>				
5. Power	0.61	0.18	0.40	0.19	<b>0.89</b>			
6. Self-direction	0.58	0.18	0.28	0.07	0.54	<b>0.72</b>		
7. Stimulation	0.64	0.41	0.32	0.20	0.57	0.65	<b>0.82</b>	
8. Normative Beliefs	0.05	0.44	0.31	0.46	0.19	-0.10	0.27	<b>0.77</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for non-exporters are summarized in Table 4.72.

Table 4.72 Summary of hypothesis testing for non-exporters

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	-0.15	0.73	0.21	Not supported
H2: Self-direction -> Normative Beliefs	-0.49	2.53	0.19	Supported **
H3: Self-direction -> Control Belief Strength	0.03	0.14	0.21	Not supported
H4: Stimulation -> Behavioural Belief Strength	0.49	2.72	0.18	Supported ***
H5: Stimulation -> Normative Beliefs	0.56	3.56	0.16	Supported ***
H6: Stimulation -> Control Belief Strength	0.13	0.64	0.20	Not supported
H7: Achievement -> Behavioural Belief Strength	0.10	0.62	0.16	Not supported
H8: Achievement -> Normative Beliefs	-0.16	0.97	0.16	Not supported
H9: Achievement -> Control Belief Strength	-0.01	0.06	0.18	Not supported
H10: Power -> Behavioural Belief Strength	-0.09	0.56	0.16	Not supported
H11: Power -> Normative Beliefs	0.23	1.65	0.14	Supported *
H12: Power -> Control Belief Strength	0.31	2.03	0.15	Supported **
H13: Behavioural Belief Strength -> Export Intention	0.20	1.32	0.15	Not supported
H14: Normative Beliefs -> Export Intention	0.25	1.70	0.15	Supported *
H15: Control Belief Strength -> Export Intention	0.38	3.68	0.10	Supported ***

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10

level

The significant paths for non-exporters are summarised in Figure 4.8 below.

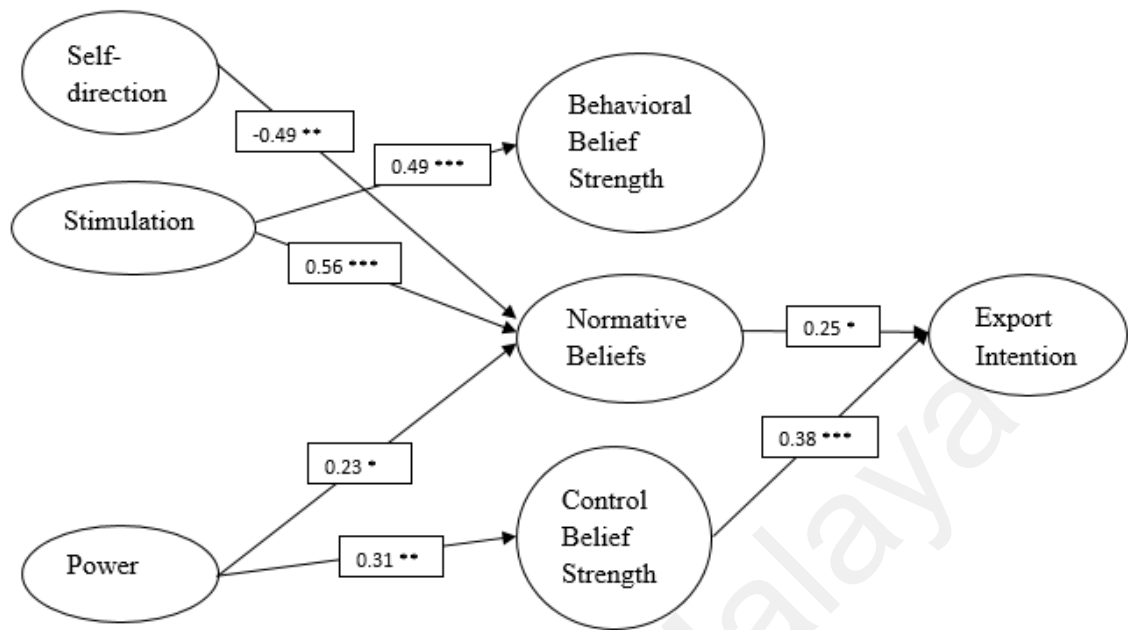


Figure 4.8 Significant paths for non-exporters

#### 4.5.2.9 Multi-group analysis for current exporting status

The analysis reveals that exporters possessed higher levels of Behavioural Belief Strength and Export Intention vis-à-vis non-exporters. Non-exporters' lack of beliefs about the benefits of exporting to new market(s) probably explained their lower level of Export Intention. The higher level of Normative Beliefs for non-exporters may be interpreted to mean that they do consider the opinions of more people pertaining to export intention than exporters, that is, non-exporters seek more advice from referents (Table 4.73).

Table 4.73 Mean comparisons for current exporting status

Construct	Exporters		Non-exporters	
	Mean	Standard deviation	Mean	Standard deviation
Behavioural Belief Strength	1.53	0.53	1.71	0.69
Normative Beliefs	8.76	7.07	7.40	7.54
Control Belief Strength	1.84	0.66	1.85	0.63
Export Intention	1.23	0.50	1.50	0.77



The *t*-test reveals significant differences between small and medium-sized exporters versus non-exporters, with exporters more inclined to seek new market(s) (Table 4.74).

Table 4.74 *T*-test for difference in Export Intention between exporters and non-exporters

	Exporters	Non-exporters	Significance
Export Intention	1.23	1.50	0.005***

Note: \*\*\* Significant at 0.01 level

Table 4.75 depicts the centred value scores and ranking of value types by current exporting status. The results suggest that there is no difference in the ranking of value types by current exporting status compared with aggregate sample in Table 4.6. Thus, the ranking of the four entrepreneurial values by exporters and non-exporters is consistent with the overall ranking. Moreover, *t*-test reveals the value differences between these two sub-groups are not significant (Table 4.76).

Table 4.75 Centred value scores and ranking of value types by current exporting status

		Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Exporters	Mean	<b>-0.39</b>	<b>-0.02</b>	0.19	0.36
	Standard deviation	0.49	0.50	0.66	0.61
	Ranking	1	2	3	4
Non-exporters	Mean	<b>-0.29</b>	0.01	0.09	0.29
	Standard deviation	0.50	0.44	0.56	0.54
	Ranking	1	2	3	4

Table 4.76 *T*-test for difference in values between exporters and non-exporters

	Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Current exporting status	0.154	0.653	0.263	0.375

The results suggest that the only significant construct mean difference between exporters and non-exporters is in their Export Intention albeit at 0.10 level (Table 4.77). This result is consistent with significant difference in Export Intention between exporters and non-exporters using *t*-test (Table 4.74), albeit the construct mean differences are unobservable, whereas the mean differences in *t*-test are observed values (Byrne, 2010).

Table 4.77 Construct mean differences between exporters and non-exporters

Construct	Estimate	S.E.	C.R.	Significance
Self-direction	-0.002	0.115	-0.018	0.986
Stimulation	0.131	0.142	0.925	0.355
Achievement	-0.002	0.111	-0.018	0.986
Power	0.036	0.113	0.321	0.748
Behavioural Belief Strength	-0.012	0.088	-0.142	0.887
Normative Beliefs	0.088	0.129	0.677	0.499
Control Belief Strength	-0.021	0.095	-0.218	0.827
Export Intention	-0.242	0.094	-2.582	0.010***

Note: \*\*\* Significant at 0.01 level

The paths from Self-direction to Behavioural Belief Strength and from Self-direction to Normative Beliefs are significantly different at 0.05 level using both *t*-test and probability approach (Table 4.78). The paths from Behavioural Belief Strength to Export Intention and from Achievement to Normative Beliefs are at least significantly different

at 0.10 level (Table 4.78). Therefore, all these paths are not generalisable across current exporting status. The other paths in Table 4.78 such as from Stimulation to Behavioural Belief Strength, Stimulation to Normative Beliefs and Control Belief Strength to Export Intention are only significantly different using the *t*-test but not probability approach, most likely because of the relatively liberal nature of parametric approach (Sarstedt et al., 2011).

Overall, results indicate that hypothesis Number 18 which postulated that there is no difference in the structural model between exporters and non-exporters is partially supported.

Table 4.78 Testing for path differences between exporters and non-exporters

Path	<i>T</i> -test (homoscedastic)	<i>T</i> -test (heteroscedastic)	Probability
Self-direction => Behavioural Belief Strength	**	**	0.03**
Self-direction => Normative Beliefs	**	**	0.04**
Self-direction => Control Belief Strength			0.36
Stimulation => Behavioural Belief Strength	*	*	0.96
Stimulation => Normative Beliefs	**	**	0.98
Stimulation => Control Belief Strength			0.40
Achievement => Behavioural Belief Strength			0.77
Achievement => Normative Beliefs	**	*	0.03**
Achievement => Control Belief Strength			0.65
Power => Behavioural Belief Strength			0.47
Power => Normative Beliefs			0.88
Power => Control Belief Strength			0.91
Behavioural Belief Strength => Export Intention	**	*	0.04**
Normative Beliefs => Export Intention	*		0.92
Control Belief Strength => Export Intention	*	**	0.97

Notes: \*\* Significant at 0.05 level, \* Significant at 0.10 level. \* or \*\* - Not relevant

For non-exporters, the  $R^2$  for all endogenous constructs are higher than aggregate sample and exporters (Table 4.79). Therefore, the proposed integrative framework explains more variance for non-exporters than aggregate sample and exporters. The goodness-of-fit suggests that the effect is large for non-exporters (Table 4.80). In summary, the group-specific Partial Least Squares enhanced the overall explanatory power of the proposed integrative framework as  $R^2$  and goodness-of-fit (GoF) both improved.

Table 4.79 Summary of coefficient of determination ( $R^2$ ) of endogenous constructs by current exporting status

Construct	$R^2$ for aggregate sample	$R^2$ for exporters	$R^2$ for non-exporters
Behavioural Belief Strength	0.10	0.12	<b>0.19</b>
Normative Beliefs	0.09	0.10	<b>0.23</b>
Control Belief Strength	0.10	0.07	<b>0.17</b>
Export Intention	0.32	0.34	<b>0.43</b>

Table 4.80 Summary of goodness-of-fit (GoF) by current exporting status

Group	GoF	GoF effect
Aggregate sample	0.32	Medium large
Exporters	0.31	Medium large
Non-exporters	<b>0.40</b>	Large

### 4.5.3 Finite Mixture PLS for unobserved heterogeneity

In this section, finite mixture PLS (FIMIX-PLS) as described in Appendix B is used to verify whether the data is collected from a single homogeneous population. In Step 1 of FIMIX-PLS, the standard Partial Least Squares has been applied to estimate and evaluate the proposed integrative path model using the aggregate sample (See Sections 4.4.2 to 4.4.9).

In Step 2.1, the FIMIX-PLS is applied to divide data on the basis of heterogeneity of the estimates in the structural model. At the beginning, FIMIX-PLS results are computed for two segments and subsequently increased the number of segments. Four evaluation criteria are used to evaluate the results, namely Akaike's information criterion (AIC), Bayesian information criterion (BIC), consistent AIC (CAIC) and entropy (EN). When there are two segments, that is,  $K = 2$ , the information criteria of BIC and CAIC are the lowest. When there are five segments, that is,  $k = 5$ , AIC is the lowest and EN is the highest. The decision is to choose two unobserved segments instead of five (Table 4.81) due to three reasons. First is the small difference in EN between two and five segments. Second is the ENs for both segments are above 0.7, which indicate that the derived segments are well separated. Third is for parsimony.

Table 4.81 Information and classification criteria for  $k$  from two to six

Criteria	$k = 2$	$k = 3$	$k = 4$	$k = 5$	$k = 6$
AIC	2516	2573	2616	2450	2462
BIC	2652	2779	2892	2796	2877
CAIC	2652	2780	2892	2796	2878
EN	0.80	0.69	0.68	0.82	0.81

In Step 2.2 of FIMIX-PLS, the goal is to identify an explanatory variable that takes cognizant of the grouping of data as produced by the FIMIX-PLS segmentation results and at the same time, meaningful interpretation of distinctive segments. Unfortunately, membership in the segments identified typically are weakly related to demographic or psychographic variables (Hahn, Johnson, Herrmann, & Huber, 2002; Sarstedt, 2008) and existing statistical techniques are inadequate to profile the segments (Sarstedt, 2008). As a result, the two segments can only be roughly profiled in Table 4.82.

Table 4.82 Segment profiling

Segment 1	Segment 2
N = 31 (0.128)	N = 212 (0.872)
81% are male	68% are male
77% are Chinese SME entrepreneurs	About equal percentage of Malay and Chinese entrepreneurs
About equal percentage of exporters and non-exporters	69% exporters

In Step 2.3, the data are segmented a priori followed by calculation of segment-specific estimates of the proposed integrative path model.

#### 4.5.3.1 Segment One

The measurement and structural models for the two unobserved segments are evaluated in a similar fashion to the aggregate sample. In Segment One, there is only one item each for Self-direction and Power (Table 4.83) and this situation can be handled in Partial

Least Squares (Hair et al., 2014). All item loadings for Segment One are  $\geq 0.7$  and *t*-statistic is significant.

Table 4.83 Indicator reliability for Segment One

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B3 <- Behavioural Belief Strength	0.9	0.03	25.84
B4 <- Behavioural Belief Strength	0.7	0.08	9.24
B5 <- Behavioural Belief Strength	0.9	0.02	54.51
C1 <- Control Belief Strength	0.9	0.03	33.75
C10 <- Control Belief Strength	0.8	0.10	8.09
C11 <- Control Belief Strength	0.8	0.04	19.78
C2 <- Control Belief Strength	0.7	0.14	5.10
C5 <- Control Belief Strength	0.7	0.06	13.05
C7 <- Control Belief Strength	0.9	0.03	33.26
C8 <- Control Belief Strength	0.9	0.04	20.58
C9 <- Control Belief Strength	0.7	0.12	6.29
I1 <- Export Intention	0.9	0.02	41.79
I2 <- Export Intention	1.0	0.01	106.09
I3 <- Export Intention	1.0	0.01	100.69
I4 <- Export Intention	1.0	0.01	103.81
SN10 <- Normative Beliefs	0.8	0.06	13.14
SN3 <- Normative Beliefs	0.8	0.06	13.77
SN4 <- Normative Beliefs	0.8	0.07	10.61
SN5 <- Normative Beliefs	0.8	0.04	19.61
SN6 <- Normative Beliefs	0.8	0.04	21.45

SN7 <- Normative Beliefs	0.8	0.04	18.10
SN8 <- Normative Beliefs	0.7	0.08	8.35
V15 <- Stimulation	0.9	0.10	8.24
V24 <- Achievement	0.9	0.03	31.50
V30 <- Stimulation	0.9	0.06	15.82
V32 <- Achievement	0.9	0.04	23.22
V34 <- Self-direction	1.0	-	-
V39 <- Power	1.0	-	-
V6 <- Stimulation	0.8	0.07	11.65

The composite reliability and convergent validity for Segment One are satisfactory (Table 4.84).

Table 4.84 Composite reliability and convergent validity for Segment One

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	1.00	1.00
Stimulation	0.90	0.74
Achievement	0.91	0.84
Power	1.00	1.00
Behavioural Belief Strength	0.88	0.71
Normative Beliefs	0.92	0.63
Control Belief Strength	0.94	0.66
Export Intention	0.98	0.92

The discriminant validity for Segment One is satisfactory (Tables 4.85 and 4.86).



Table 4.85 Discriminant validity – factor loadings and cross-loadings for Segment One

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- direction	Stimulation	Normative Beliefs
B3	-0.1	<b>0.9</b>	0.2	0.2	0.2	0.0	0.4	0.0
B4	0.0	<b>0.7</b>	0.6	0.1	0.3	0.0	0.1	-0.2
B5	0.0	<b>0.9</b>	0.3	0.3	0.2	-0.1	0.4	0.0
C1	-0.3	0.4	<b>0.9</b>	0.2	0.1	-0.1	0.0	-0.4
C10	-0.1	0.2	<b>0.8</b>	0.0	0.3	-0.1	0.1	-0.3
C11	-0.3	0.1	<b>0.8</b>	0.1	0.3	-0.1	0.0	-0.4
C2	-0.4	0.2	<b>0.7</b>	0.5	-0.1	-0.2	-0.2	-0.4
C5	-0.1	0.7	<b>0.7</b>	0.2	0.1	-0.1	0.3	-0.2
C7	-0.2	0.4	<b>0.9</b>	0.2	0.3	-0.1	0.1	-0.3
C8	-0.2	0.3	<b>0.9</b>	0.0	0.2	0.0	0.2	-0.2
C9	0.1	0.3	<b>0.7</b>	-0.1	0.5	0.2	0.3	-0.1
I1	-0.2	0.3	0.1	<b>0.9</b>	0.1	-0.3	-0.2	-0.4
I2	-0.3	0.2	0.2	<b>1.0</b>	-0.1	-0.2	-0.3	-0.5
I3	-0.2	0.3	0.2	<b>1.0</b>	-0.1	-0.2	-0.2	-0.5
I4	-0.2	0.2	0.1	<b>1.0</b>	0.0	-0.2	-0.1	-0.6
SN10	0.1	-0.2	-0.4	-0.4	-0.1	0.3	-0.2	<b>0.8</b>
SN3	0.3	-0.2	-0.2	-0.5	0.1	0.4	0.1	<b>0.8</b>
SN4	0.2	0.2	-0.1	-0.5	0.0	0.1	0.4	<b>0.8</b>
SN5	0.2	0.0	-0.1	-0.6	0.1	0.2	0.2	<b>0.8</b>
SN6	0.3	0.0	-0.4	-0.5	0.2	0.2	0.0	<b>0.8</b>
SN7	0.3	0.0	-0.5	-0.4	0.1	0.2	0.2	<b>0.8</b>
SN8	0.2	0.0	-0.5	-0.2	0.0	0.2	0.0	<b>0.7</b>
V15	0.2	0.5	0.2	0.0	0.4	0.1	<b>0.9</b>	0.0
V24	<b>0.9</b>	0.0	-0.3	-0.2	0.5	0.2	0.3	0.3

V30	0.4	0.3	0.0	-0.3	0.3	0.4	<b>0.9</b>	0.2
V32	<b>0.9</b>	0.0	-0.2	-0.3	0.5	0.3	0.4	0.3
V34	0.3	-0.1	-0.1	-0.2	0.2	<b>1.0</b>	0.3	0.3
V39	0.6	0.2	0.3	0.0	<b>1.0</b>	0.2	0.4	0.1
V6	0.5	0.2	-0.1	-0.2	0.4	0.4	<b>0.8</b>	0.2

Table 4.86 Discriminant validity – square root of AVE for Segment One

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.91</b>							
2. Behavioural Belief Strength	0.01	<b>0.84</b>						
3. Control Belief Strength	-0.26	0.37	<b>0.81</b>					
4. Export Intention	-0.24	0.26	0.17	<b>0.96</b>				
5. Power	0.57	0.25	0.25	-0.03	<b>1</b>			
6. Self-direction	0.26	-0.08	-0.10	-0.21	0.23	<b>1</b>		
7. Stimulation	0.40	0.41	0.07	-0.20	0.42	0.30	<b>0.86</b>	
8. Normative Beliefs	0.30	-0.03	-0.36	-0.55	0.06	0.28	0.13	<b>0.79</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for Segment One are summarised in Table 4.87.

Table 4.87 Summary of hypotheses testing for Segment One

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	-0.21	2.42	0.09	Supported **
H2: Self-direction -> Normative Beliefs	0.24	2.14	0.11	Supported **
H3: Self-direction -> Control Belief Strength	-0.10	1.04	0.10	Not supported
H4: Stimulation -> Behavioural Belief Strength	0.48	4.30	0.11	Supported ***
H5: Stimulation -> Normative Beliefs	0.00	0.02	0.13	Not supported
H6: Stimulation -> Control Belief Strength	0.10	0.73	0.14	Not supported
H7: Achievement -> Behavioural Belief Strength	-0.27	2.81	0.10	Supported ***
H8: Achievement -> Normative Beliefs	0.34	3.42	0.10	Supported ***
H9: Achievement -> Control Belief Strength	-0.61	6.32	0.10	Supported ***
H10: Power -> Behavioural Belief Strength	0.24	2.27	0.11	Supported **
H11: Power -> Normative Beliefs	-0.19	1.84	0.10	Supported *
H12: Power -> Control Belief Strength	0.58	4.40	0.13	Supported ***
H13: Behavioural Belief Strength -> Export Intention	0.30	3.64	0.08	Supported ***
H14: Normative Beliefs -> Export Intention	-0.60	8.81	0.07	Supported ***
H15: Control Belief Strength -> Export Intention	-0.15	1.33	0.11	Not supported

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10 level

The significant paths for Segment One are summarised in Figure 4.9 below.

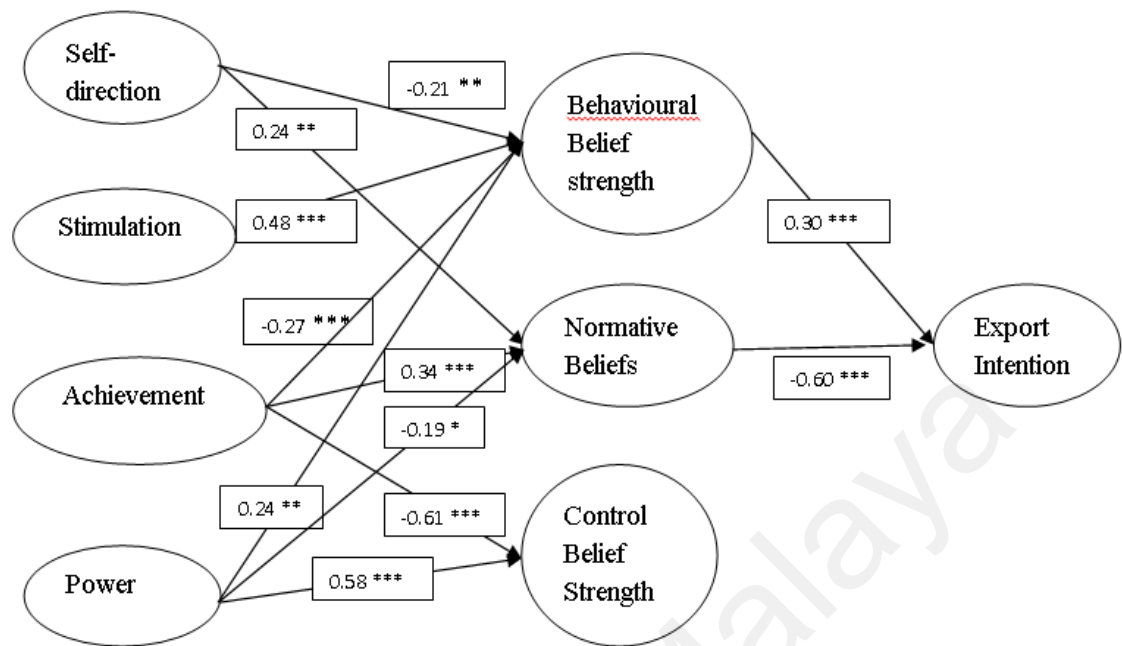


Figure 4.9 Significant paths for Segment One

#### 4.5.3.2 Segment Two

All item loadings for Segment Two are  $\geq 0.7$  and  $t$ -statistic is significant (Table 4.88).

Table 4.88 Indicator reliability for Segment Two

	Original Sample (O)	Standard Error (STERR)	T Statistics ( O/STERR )
B3 <- Behavioural Belief Strength	0.8	0.06	13.82
B4 <- Behavioural Belief Strength	0.9	0.04	23.04
B5 <- Behavioural Belief Strength	0.9	0.05	18.55
C1 <- Control Belief Strength	0.8	0.06	11.92
C2 <- Control Belief Strength	0.8	0.05	15.23
C5 <- Control Belief Strength	0.7	0.07	10.82
C7 <- Control Belief Strength	0.8	0.05	15.36
C9 <- Control Belief Strength	0.7	0.07	10.08
I1 <- Export Intention	0.8	0.06	14.87
I2 <- Export Intention	0.9	0.04	21.36
I3 <- Export Intention	0.9	0.05	16.89
I4 <- Export Intention	0.8	0.15	5.30
SN1 <- Normative Beliefs	0.8	0.18	4.28
SN10 <- Normative Beliefs	0.8	0.18	4.37
SN2 <- Normative Beliefs	0.8	0.15	5.39
SN3 <- Normative Beliefs	0.8	0.17	4.34
V1 <- Self-direction	0.9	0.04	22.09
V13 <- Achievement	0.8	0.17	4.69
V15 <- Stimulation	0.8	0.11	7.40
V17 <- Power	0.8	0.22	3.80
V22 <- Self-direction	0.7	0.13	5.96
V24 <- Achievement	0.7	0.26	2.71
V30 <- Stimulation	0.8	0.10	7.67
V32 <- Achievement	0.7	0.28	2.54

V39 <- Power	0.9	0.14	6.55
V4 <- Achievement	0.8	0.18	4.49
V6 <- Stimulation	0.8	0.11	7.47

The composite reliability and convergent validity for Segment Two are satisfactory (Table 4.89).

Table 4.89 Composite reliability and convergent validity for Segment Two

Construct	Composite reliability	Average variance extracted (AVE)
Self-direction	0.83	0.72
Stimulation	0.84	0.64
Achievement	0.84	0.56
Power	0.87	0.77
Behavioural Belief Strength	0.89	0.72
Normative Beliefs	0.86	0.61
Control Belief Strength	0.87	0.58
Export Intention	0.90	0.70

The discriminant validity for Segment Two is satisfactory (Tables 4.90 and 4.91).

Table 4.90 Discriminant validity – factor loadings and cross-loadings for Segment Two

Item	Achievement	Behavioural Belief Strength	Control Belief Strength	Export Intention	Power	Self- direction	Stimulation	Normative Beliefs
B3	0.0	<b>0.8</b>	0.4	0.5	0.0	0.2	0.1	0.1
B4	0.0	<b>0.9</b>	0.4	0.5	0.1	0.3	0.2	0.1
B5	0.1	<b>0.9</b>	0.4	0.5	0.1	0.3	0.2	0.2
C1	0.1	0.4	<b>0.8</b>	0.3	0.2	0.2	0.2	0.0
C2	0.1	0.4	<b>0.8</b>	0.4	0.1	0.2	0.2	0.0
C5	0.0	0.3	<b>0.7</b>	0.3	0.1	0.1	0.1	0.0
C7	0.2	0.3	<b>0.8</b>	0.4	0.2	0.2	0.2	0.1
C9	0.2	0.3	<b>0.7</b>	0.3	0.2	0.3	0.4	0.1
I1	0.0	0.5	0.4	<b>0.8</b>	0.1	0.2	0.2	0.1
I2	0.1	0.5	0.4	<b>0.9</b>	0.1	0.2	0.2	0.1
I3	0.1	0.5	0.4	<b>0.9</b>	0.1	0.1	0.1	0.2
I4	0.1	0.4	0.3	<b>0.8</b>	0.1	0.2	0.2	0.1
SN1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<b>0.8</b>
SN10	0.2	0.2	0.2	0.2	0.1	0.1	0.1	<b>0.8</b>
SN2	0.2	0.1	0.0	0.1	0.1	0.0	0.2	<b>0.8</b>
SN3	0.1	0.0	0.0	0.1	0.1	0.1	0.1	<b>0.8</b>
V1	0.3	0.3	0.3	0.2	0.5	<b>0.9</b>	0.4	0.1
V13	<b>0.8</b>	0.0	0.1	0.1	0.4	0.2	0.4	0.2
V15	0.4	0.1	0.2	0.1	0.3	0.4	<b>0.8</b>	0.2
V17	0.5	0.1	0.1	0.1	<b>0.8</b>	0.5	0.3	0.1
V22	0.4	0.2	0.2	0.1	0.4	<b>0.7</b>	0.5	0.0
V24	<b>0.7</b>	0.1	0.1	0.1	0.5	0.5	0.5	0.1
V30	0.5	0.1	0.2	0.1	0.4	0.4	<b>0.8</b>	0.2
V32	<b>0.7</b>	0.2	0.1	0.1	0.4	0.4	0.5	0.1
V39	0.5	0.1	0.3	0.1	<b>0.9</b>	0.5	0.4	0.1
V4	<b>0.8</b>	0.0	0.2	0.0	0.4	0.2	0.4	0.2
V6	0.5	0.3	0.3	0.2	0.3	0.5	<b>0.8</b>	0.1

Table 4.91 Discriminant validity – square root of AVE for Segment Two

	1	2	3	4	5	6	7	8
1. Achievement	<b>0.75</b>							
2. Behavioural Belief Strength	0.05	<b>0.85</b>						
3. Control Belief Strength	0.17	0.47	<b>0.76</b>					
4. Export Intention	0.09	0.59	0.44	<b>0.84</b>				
5. Power	0.56	0.07	0.24	0.12	<b>0.88</b>			
6. Self-direction	0.41	0.30	0.31	0.22	0.52	<b>0.85</b>		
7. Stimulation	0.54	0.22	0.31	0.18	0.43	0.54	<b>0.8</b>	
8. Normative Beliefs	0.21	0.15	0.07	0.16	0.14	0.10	0.17	<b>0.78</b>

Notes: Diagonal elements in bold are the square roots of AVE. Off diagonal elements are the correlations among constructs.

The results of hypotheses testing for Segment Two are summarised in Table 4.92.



Table 4.92 Summary of hypotheses testing for Segment Two

Hypothesis	Path coefficient	T-value	S. E.	Conclusion
H1: Self-direction -> Behavioural Belief Strength	0.31	2.62	0.12	Supported ***
H2: Self-direction -> Normative Beliefs	-0.03	0.16	0.16	Not supported
H3: Self-direction -> Control Belief Strength	0.17	1.30	0.13	Not supported
H4: Stimulation -> Behavioural Belief Strength	0.16	1.17	0.14	Not supported
H5: Stimulation -> Normative Beliefs	0.09	0.49	0.18	Not supported
H6: Stimulation -> Control Belief Strength	0.22	1.49	0.15	Not supported
H7: Achievement -> Behavioural Belief Strength	-0.11	0.75	0.15	Not supported
H8: Achievement -> Normative Beliefs	0.16	0.80	0.20	Not supported
H9: Achievement -> Control Belief Strength	-0.08	0.48	0.16	Not supported
H10: Power -> Behavioural Belief Strength	-0.10	0.77	0.13	Not supported
H11: Power -> Normative Beliefs	0.03	0.14	0.18	Not supported
H12: Power -> Control Belief Strength	0.10	0.75	0.14	Not supported
H13: Behavioural Belief Strength -> Export Intention	0.48	4.54	0.11	Supported ***
H14: Normative Beliefs -> Export Intention	0.07	0.85	0.08	Not supported
H15: Control Belief Strength -> Export Intention	0.21	2.22	0.10	Supported **

Notes: \*\*\* Significant at 0.01 level, \*\* Significant at 0.05 level, \* Significant at 0.10 level

The significant paths for Segment Two are summarised in Figure 4.10 below.

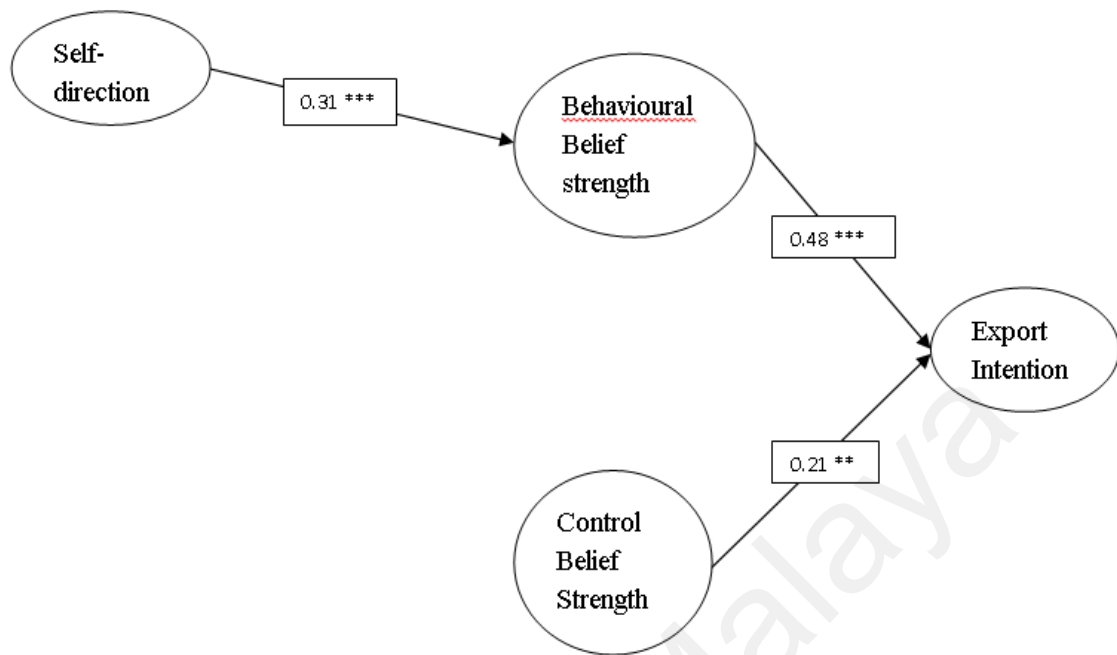


Figure 4.10 Significant paths for Segment Two

#### 4.5.3.3 Multi-group analysis for unobserved segments

Overall, Segment Two has lower mean for all constructs compared to Segment One (Table 4.93).

Table 4.93 Mean comparisons for unobserved segments

Construct	Segment One		Segment Two	
	Mean	Standard deviation	Mean	Standard deviation
Behavioural Belief Strength	2.17	0.72	1.50	0.52
Normative Beliefs	19.67	9.31	6.61	5.07
Control Belief Strength	2.48	0.94	1.75	0.54
Export Intention	2.22	1.11	1.19	0.35

The *t*-test reveals significant difference in Export Intention between the two segments (Table 4.94).

Table 4.94 *T*-test for difference in export intention between Segments One and Two

	Segment One	Segment Two	Significance
Export Intention	2.22	1.19	0.000***

Note: \*\*\* Significant at 0.01 level

Table 4.95 presents the Centred value scores and ranking of value types by unobserved segments. The results suggest that overall, there is no major difference in the ranking of value types by both unobserved segments vis-à-vis aggregate sample even though *t*-test shows significant differences for Self-direction and Stimulation (Table 4.96).

Table 4.95 Centred value scores and ranking of value types by unobserved segments

		Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Segment One	Mean	<b>-0.53</b>	0.08	0.36	0.24
	Standard deviation	0.50	0.51	0.74	0.71
	Ranking	1	2	4	3
Segment Two	Mean	<b>-0.33</b>	<b>-0.02</b>	0.12	0.35
	Standard deviation	0.49	0.48	0.60	0.57
	Ranking	1	2	3	4

Table 4.96 *T*-test for difference in values between Segment One and Two

	Self-direction - Centred value score	Achievement - Centred value score	Stimulation - Centred value score	Power - Centred value score
Unobserved segment	0.036**	0.254	0.088*	0.293

Notes: \*\* Significant at 0.05 level, \* Significant at 0.10 level

Prior to multi-group analysis in Step 2.3, measurement invariance must be evaluated for comparability. However, the attempt to test for measurement invariance using multi-group Confirmatory Factor Analysis in AMOS was not able to be executed due to the small sample size of 31 in Segment One. Consequently, it is not possible to establish measurement invariance. For the last step in FIMIX-PLS (i.e. Step 3), this study is only able to evaluate and interpret segment-specific Partial Least Squares results but unable to test for path differences and compare construct mean differences between the two unobserved segments (i.e. multi-group comparison).

All entrepreneurial values motivate Segment One (Figure 4.8). It may be reasonable to argue that although Segment One is more homogenous than aggregate sample, nevertheless it is still a diverse group of respondents, hence, the impacts of all entrepreneurial values. On the other hand, Segment Two is motivated by Self-direction alone (Figure 4.9). Segment Two is more homogenous with respect to participants' responses. It seems that the motivation for this segment is simple: they desire Self-direction and in turn, weigh the advantages and disadvantages of exporting to new market(s) in the future. At the same time, they also take into account the factors enabling and impeding export to new market(s) in the future.

For the motivation to export to new market(s) in the future, it seems that Segment Two are driven by firstly, Behavioural Belief Strength, followed by Control Belief Strength. The findings for Segment Two corroborate the results for aggregate sample in three aspects. The first is the significant paths from Behavioural Belief Strength and Control Belief Strength to Export Intention. Second is the relative strength of path

coefficients of Behavioural Belief Strength and Control Belief Strength and third is the non-significance of the path from Normative Beliefs to Export Intention. These findings are reasonable in light of Segment Two which constituted 87% of the aggregate sample size.

In contrast, Segment One appears to be overwhelmingly discouraged by their referents to consider export to new market(s) in the future. Nevertheless, they are driven by Behavioural Belief Strength although to a lesser extent. This means that Normative Beliefs is a stronger predictor of export intention than Behavioural Belief Strength for Segment One. Therefore, FIMIX-PLS analysis shed new light on the existence of a small group of small and medium-sized entrepreneurs who are probably surrounded by referents who disapprove of their export intention to new market(s) in the future.

The coefficients of determination ( $R^2$ ) for Export Intention for both unobserved segments derived from the FIMIX-PLS procedure are higher than the aggregate sample, which means more variance is explained in each segment (Table 4.97). In particular, the  $R^2$  for all endogenous constructs for Segment One are higher compared with aggregate sample, thus indicating that the proposed integrative framework explains Segment One better than aggregate sample (Table 4.97). In other words, the homogenous Segment One has more significant paths from values to the three beliefs constructs, resulting in more variance explained for the three beliefs constructs.

Additionally, the goodness-of-fit seems to suggest that the effect for Segment One is large (Table 4.98). In sum, the segment-specific Partial Least Squares results improved the overall explanatory power of the proposed integrative framework as evidenced by the better  $R^2$  and goodness-of-fit values.

Table 4.97 Summary of coefficient of determination ( $R^2$ ) of endogenous constructs by unobserved segments

Construct	$R^2$ for aggregate sample	$R^2$ for Segment One	$R^2$ for Segment Two
Behavioural Belief Strength	0.10	<b>0.27</b>	0.12
Normative Beliefs	0.09	<b>0.16</b>	0.05
Control Belief Strength	0.10	<b>0.32</b>	0.13
Export Intention	0.32	<b>0.38</b>	<b>0.39</b>

Table 4.98 Summary of GoF by unobserved segments

Group	GoF	GoF effect
Aggregate sample	0.32	Medium large
Segment One	<b>0.48</b>	Large
Segment Two	0.34	Medium large

In summary, with the execution of FIMIX-PLS procedures, this study verified that unobserved heterogeneity in the path model estimates is not an issue in multi-group Partial Least Squares analyses (Ringle, Sarstedt, & Mooi, 2010). The analyses in this section confirmed that the performance of FIMIX-PLS is very good when segment size is unequal and data is non-normally distributed (Esposito et al., 2007 cited in Rigdon et al., 2010).

## 4.6 Conclusions

A rigorous methodology is the hallmark of a scientific research. The literature on methodology in the previous chapter provided the foundation to choose appropriate research methodology for the present chapter which enabled valid operationalisation of constructs, selection of appropriate samples, analysis techniques to check psychometric properties of reliability and validity and analyses that are appropriate for the research questions.

This chapter reports the results of data analysis using different software such as SPSS, SmartPLS and AMOS. The qualitative and quantitative analysis yield meaningful results to achieve all research objectives of this study. Thus, the proposed integrative framework is empirically validated based on the responses obtained from 243 small and medium-sized entrepreneurs in Malaysia.

Besides this, the contextual analysis by observed heterogeneity (i.e. gender, ethnicity and current exporting status) as well as unobserved heterogeneity generate new insights and adds to our understanding of the similarities and differences between these groups which have implications in terms of theory, practice and policy. The next chapter will discuss and conclude the findings from this chapter, reflect on this study and highlight avenues for future research.

## **CHAPTER 5**

### **DISCUSSION AND CONCLUSIONS**

#### **5.1 Introduction**

This study adopts the Structured Approach to Multivariate Model Building (Hair et al., 2006). Stage Three of this approach is to evaluate the assumptions underlying the multivariate technique and Stage Four is to estimate the multivariate model and assess overall model fit. These two stages have been carried out in the previous chapter. This chapter will deal with Stage Five which is to interpret the variates in order to reveal the nature of the multivariate relationship (Hair et al., 2006). The extensive analysis in the previous chapter forms the basis to corroborate discussions and conclusions in this final chapter.

This chapter begins with a review of research objectives and hypotheses. The next section interprets the aggregate and segmented results and confirms the attainment of research objectives. Ensuing section discusses the research contributions and implications in terms of theoretical, methodological, practical and public policy. This will be followed by sections on limitations of the study, suggestions for future research and reflections. This thesis ends with conclusions.

In this final chapter, literature review provides comparison for findings and identifies contribution to knowledge. It also aids to draw clear conclusions. This study adopted the belief composites approach to the Theory of Planned Behaviour, whereas the direct approach is used by a majority of prior studies (Ajzen, 2002). Therefore, when citing prior studies the constructs in direct approach will be mentioned, that is, attitude, subjective norm and perceived behavioural control. Where results from this study are discussed, the corresponding constructs in belief composites approach will be mentioned,



that is, Behavioural Belief Strength, Normative Beliefs and Control Belief Strength.

## **5.2 Review of study**

To put the whole research into perspective prior to discussions and conclusions for various findings, this section will recap the research objectives and hypotheses.

### **5.2.1 Research objectives**

There are six objectives for this scholarly research as previously outlined in Chapter Three Research Methodology. The first objective is to develop and empirically test a theory-driven research framework that coherently integrates entrepreneurial values and the Theory of Planned Behaviour in the context of SME international entrepreneurship. The second objective is to identify entrepreneurial values that significantly influence the three determinants of export intention, that is, Behavioural Beliefs, Normative Beliefs and Control Beliefs. The third objective is to investigate significance of the three antecedents of intention in predicting export intention in a collectivist country. The fourth objective is to determine the relative weightage of the three antecedents of intention in predicting Export Intention in a collectivist country. The fifth objective is to test the moderation effect of observed heterogeneity (i.e. gender, ethnicity, current exporting status of entrepreneurs) as well as unobserved heterogeneity on the proposed integrative framework. In other words, it is to examine the circumstances under which the relationships in the framework are extremely strong or extremely weak. The final objective is to provide insights to fine tune public policies that aim to facilitate a greater level of exporting by SME entrepreneurs and further the economic progress of Malaysia.

### 5.2.2 Hypotheses

To answer the first question, 12 null hypotheses are developed for testing:

H1 Self-direction positively influences Behavioural Belief Strength.

H2 Self-direction positively influences Normative Beliefs.

H3 Self-direction positively influences Control Belief Strength.

H4 Stimulation positively influences Behavioural Belief Strength.

H5 Stimulation positively influences Normative Beliefs.

H6 Stimulation positively influences Control Belief Strength.

H7 Achievement positively influences Behavioural Belief Strength.

H8 Achievement positively influences Normative Beliefs.

H9 Achievement positively influences Control Belief Strength.

H10 Power positively influences Behavioural Belief Strength.

H11 Power positively influences Normative Beliefs.

H12 Power positively influences Control Belief Strength.

To answer the second question, three null hypotheses are formulated to be tested:

H13 Behavioural Belief Strength positively influences Export Intention.

H14 Normative Beliefs positively influences Export Intention.

H15 Control Belief Strength positively influences Export Intention.

Lastly, to answer the third question, the three null hypotheses are:

H16 There is no difference in the structural model between female and male small and medium-sized entrepreneurs.

H17 There is no difference in the structural model between Malay and Chinese small and medium-sized entrepreneurs.

H18 There is no difference in the structural model between small and medium-sized exporters and non-exporters.

### **5.3 Discussion**

Proper inferences can now be drawn on the basis of results obtained in Chapter Four Data Analysis and Results in order to achieve the stated research objectives.

#### **5.3.1 Research objective number one - Integration of entrepreneurial values and the Theory of Planned Behaviour**

On the whole, the conjectures for this study are supported, hence, this study can be considered as successful (Maio & Olson, 1995). The congruence of evidence from various tests conducted to assess the structural model (such as hypotheses testing for significant paths linking the constructs, effect size and predictive relevance and global goodness-of-fit) all made a compelling case of a more rigorous theoretical framework integrating entrepreneurial values and the Theory of Planned Behaviour. Besides that, an important measure for a good model of entrepreneurship is the model's ability to make predictions about specific outcomes (Bygrave & Hofer, 1991) and the proposed integrative framework explains 32% of the variance in Export Intention, which is

satisfactory (Chin, 1998). In sum, evidence suggests support for the proposed integrative framework.

There are several perspectives to describe this title which are essentially similar. It can be described as the extension of the Values Theory or the Theory of Planned Behaviour. It can also be labelled as an integration of the Values Theory and the Theory of Planned Behaviour. Alternatively, it can be stated that Behavioural Belief Strength and Control Belief Strength mediate the relationship between small and medium-sized entrepreneur's Self-direction and Stimulation and their Export Intention. Most importantly, this study reconciles two streams of research that have previously remained independent of each other.

The impact from Achievement on entrepreneur's self-efficacy (similar to Control Belief Strength) is not supported in aggregate sample and all sub-samples except Segment One (about 12% of the sample) and this answered the question raised by Carsrud and Brannback (2011).

Recently, the relationship between Subjective Norm and Entrepreneurial Intention is found to be significantly stronger in a high collectivist society (Siu & Lo, 2013) but this study argues that their samples are students (assuming full-time) and thus, may not be representative of entrepreneurs. It is more intuitively plausible to argue that because entrepreneurs value Self-direction, therefore, subjective norm, which is conceptually similar to conformity (restraint of actions, inclinations and impulses likely to upset or harm others and violate social expectations or norms) is not significant. In the structural relations among the 10 values (Schwartz, 1994; Schwartz & Sagiv, 1995), Conformity is a dimension of value that competes or opposes Self-direction. In this sense, the advantage

of the proposed integrative framework lies in its ability to explain the insignificance of Subjective Norm by tracing the antecedent, that is, Self-direction.

Overall, this integrative framework is conceptually similar to the international entrepreneurial culture (IEC) model (Dimitratos & Plakoyiannaki, 2003) although the IEC model is at organisational level (Figure 5.1). In this IEC model, the dimension of international motivation is equivalent to Behavioural Belief Strength and the other five dimensions are items under the Control Belief Strength. Nonetheless, it is argued that the proposed integrative framework has three advantages over the IEC model. First, this integrative framework utilises the process model and international entrepreneurship is a processual phenomenon (Dimitratos & Plakoyiannaki, 2003) (See discussions in Chapter Two Literature Review Section 2.9.3). Second, the process model funnels from the general to the specific, that is, from values that transcend specific actions or situations to the Theory of Planned Behaviour that refers to specific actions or situations. Third, there are some enabling factors identified in the literature but not included in the IEC model. Factors such as opportunity recognition, export ability, flexibility, technology and confidence to succeed are considered relevant in the context of small and medium-sized international entrepreneurship.

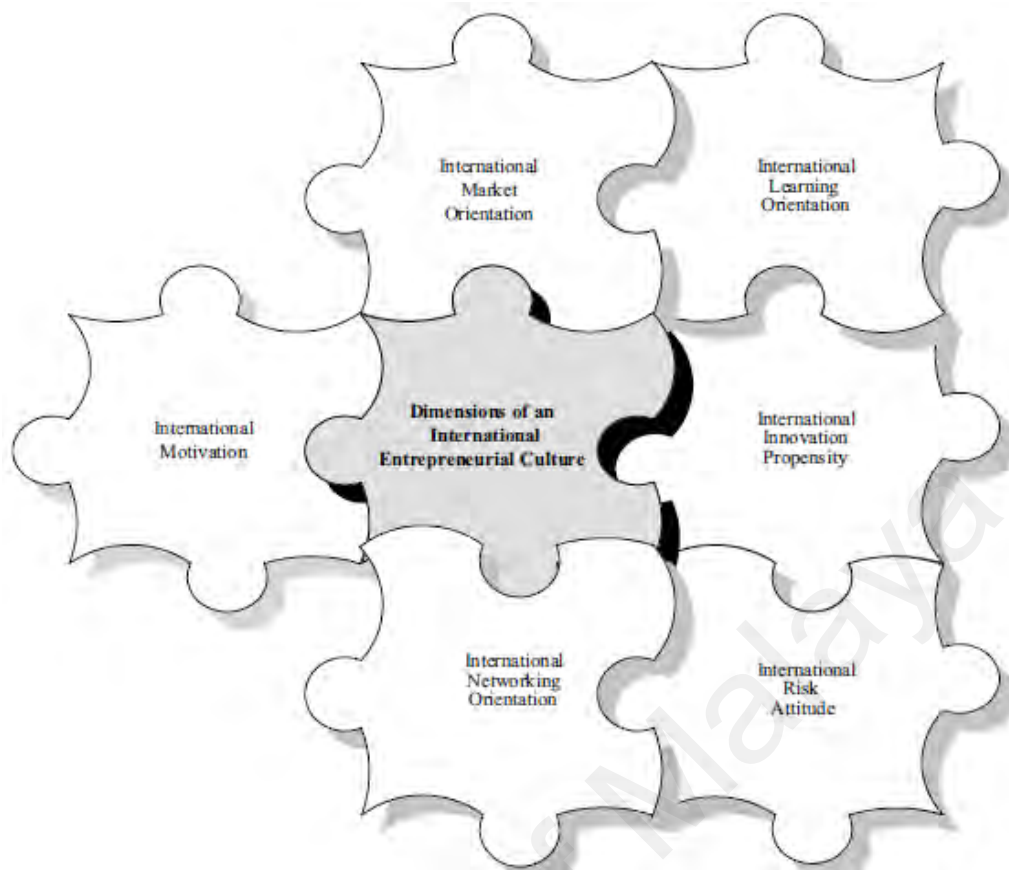


Figure 5.1 The dimensions of an international entrepreneurial culture (Dimitratos & Plakoyiannaki, 2003)

### 5.3.2 Research objective number two – Entrepreneurial values that significantly influence determinants of export intention

The Values Theory enables us to objectively determine whether a particular value type is important and to identify its priority or ranking. The results corroborate with previous analyses by Noseleit (2010) on the ranking of the four entrepreneurial values in descending order of self-direction, achievement, stimulation and power. Although Noseleit (2010) analysed data from nine Western European countries whilst this study utilised Malaysian small and medium-sized entrepreneurs, both sets of results seem to suggest that the value priorities of entrepreneurs from Western European countries and

Malaysia are similar. Consequently, this research supports and extends the theoretical and empirical foundations of universal entrepreneurial values.

The ranking of entrepreneurial values are similar for overall, as well as across gender, ethnicity and current exporting status. In line with many other studies on entrepreneurial values, this study also shows Self-direction as the most important entrepreneurial value. The finding on the overwhelming emphasis of Self-direction adds to the existing body of theory and evidence that Self-direction is the primary motivation for entrepreneurs universally. This motivational force carries different terminologies, for example, desire for independence (Basu & Altinay, 2002; Hornaday & Aboud, 1971; Mueller & Thomas, 2000; Stevenson & Jarillo, 1990), autonomy (Engle et al., 2010; Sexton & Bowman, 1985; Shane, 1992; Wiklund et al., 2003) and control over one's own life (Basu & Altinay, 2002; Blanchflower, 2004). This finding also lends support to the argument that entrepreneurs favour individual rather than collective action (Amit et al., 1993).

The results on Achievement compare favourably with previous finding that entrepreneurs are oriented toward personal success through individual achievement (Holt, 1997).

Contrary to popular belief, risk-taking propensity (which is a component of Stimulation) is not rated highly. An intuitively plausible explanation is that entrepreneurs are characterised as moderate risk takers (Brockhaus, 1982; Brockhaus & Horwitz, 1986; Carland et al., 1984) with an ability to take calculated risks (Hornaday, 1982) and influence the achievement of business goals (Brockhaus & Horwitz, 1986), rather than being characterised as high risk takers as found in some definitions of entrepreneurs.

Schumpeter (1959), Hagen (1960) and Basu and Altinay (2002) argue that entrepreneurs are motivated by Power. However, Holt (1997), Morris *et al.* (2002), Wiklund *et al.* (2003), Noseleit (2010) and this study argue otherwise. Results herein provide further evidence in support of the idea that social status and prestige and control or dominance over people or resources are the least important among the four entrepreneurial values.

At the structural level, the results revealed the two major motivational forces to export to new market(s) in the future for Malaysian small and medium-sized entrepreneurs are Self-direction and Stimulation. That is to say, the independent thought and action as well as excitement, novelty and challenge in life are giving direction and emotional intensity to Malaysian small and medium-sized entrepreneurs. From another perspective, it can be contended that the decision to pursue export to new market(s) in the future reflects, expresses or achieves the important values of Self-direction and Stimulation for the small and medium-sized entrepreneurs surveyed. This integrative framework can be interpreted to mean that small and medium-sized entrepreneurs perceive export to new market(s) as related to values central to their self-concept. As such, they have the cognitive and motivational architecture to act on that values spontaneously (Hair et al., 2006; Verplanken & Holland, 2002).



### **5.3.3 Research objective number three and four – Significant and relative weightage of determinants of export intention**

The research on the Theory of Planned Behaviour in the context of entrepreneurship generally found significant influence of attitude and perceived behavioural control on intention. The predictive relevance for Behavioural Belief Strength and Control Belief Strength on Export Intention are medium and weak respectively. Besides this, the path coefficient from Behavioural Belief Strength to Export Intention (0.40) is stronger than the path coefficient from Control Belief Strength to Export Intention (0.19). Both sets of results are interpreted to mean that Behavioural Belief Strength is a stronger predictor of Export Intention than Control Belief Strength. In addition, the results also demonstrated nomological validity (Hair et al., 2006). In other words, the relationships between beliefs antecedent and intention are consistent with existing theory (Ajzen, 1991; Fishbein & Yzer, 2003; Reid, 1981) and prior research (Linan & Chen, 2009).

However, there are intellectual disagreements and mixed findings on the impact of subjective norm. In theory, subjective norm is expected to be a stronger influence in explaining intention in collectivist cultures and weaker in individualistic societies (Ajzen, 2002). Initially, it was speculated that the insignificant impact of subjective norm on intention could be attributable to data drawn from student samples and other issues. However, despite incorporating multiple-item measures and adding network members (Krueger et al., 2000), using belief composites (Linan & Chen, 2009) and entrepreneur sample, this study found that the impact of Normative Beliefs on Export Intention is insignificant. Thus, these results extend and are consonant with the recent empirical evidence on entrepreneurial intentions (for example Krueger et al., 2000; Linan & Chen,

2009). Consequently, it may be reasonable to argue that Normative Beliefs are not important in the context of predicting entrepreneurial intention.

Overall, promoting entrepreneurial intention requires promoting perceptions of both feasibility (equivalent to Control Belief Strength) and desirability (equivalent to Behavioural Belief Strength). At the same time, it appears that the relative impact of Behavioural Belief Strength vis-à-vis Control Belief Strength on intention may depend on behaviour and the population under investigation, as well as entrepreneurial values. Hence, it is best not to generalise the relative importance of underlying Behavioural Belief Strength and Control Belief Strength across entrepreneurial behaviour and entrepreneur population (Ajzen, 1991; Fishbein & Yzer, 2003).

#### **5.3.4 Research objective number five - Moderation effect of observed and unobserved heterogeneity on the proposed integrative framework**

Using a common conceptual framework (Hayton et al., 2002; Krueger et al., 2000) and Partial Least Squares multi-group analysis, both the similarities and differences between observed heterogeneity such as gender, ethnicity and current exporting status, as well as unobserved heterogeneity can be investigated rigorously. The group-specific Partial Least Squares results enhanced the overall explanatory power of the structural model as reflected in increased  $R^2$  and GoF values (Sarstedt & Ringle, 2010). In other words, the motivations from values to export intention are moderated by observed heterogeneity and unobserved heterogeneity. Some structural paths are not generalizable across observed heterogeneity.

The insights enable scholars to grasp a better picture of the effects of various moderators on path coefficients in each sub-sample and to understand which path is not generalisable across sub-samples. The results demonstrate that an aggregate-level analysis can be misleading. From analysis by observed and unobserved heterogeneity, this study adds to the body of knowledge about human variations in behavior and the associated reasons. Hence, the academic community becomes more enlightened and ‘worldly’ (Lonner & Adamopoulos, 1997).

#### **5.3.4.1 Similiarities and differences across gender**

Female entrepreneurs are driven by Self-direction and Stimulation. Self-direction motivated them to consider the advantages and enabling factors to export to new market(s) in the future. Female entrepreneurs value Stimulation (i.e. excitement, novelty and challenge in life) but at the same time they took Normative Beliefs (i.e. individuals or groups who approve or disapprove their decision) into consideration. Female entrepreneurs appear to have a higher level of Normative Beliefs compared to male entrepreneurs as evidenced by the difference in the unobserved mean of Normative Beliefs and the observed mean of Normative Beliefs. Interestingly, in their final analysis, they make their decision on the basis of Behavioural Belief Strength and Control Belief Strength but not Normative Beliefs.

Unlike their female counterparts, male entrepreneurs are solely guided by the value of Stimulation. Stimulation provides the impetus to male’s Behavioural Belief Strength, Normative Beliefs and Control Belief Strength. Male entrepreneurs’ Export Intention is predicted by both Behavioural Belief Strength and Control Belief Strength.

Overall, results indicate that hypothesis Number 16 which postulates that there is no difference in the structural model between female and male small and medium-sized entrepreneurs is partially supported. There is a significant difference between female and male entrepreneurs for the path from Self-direction to Control Belief Strength. Hence, this path is not generalisable across gender. For the path from Power to Control Belief Strength, the difference is only indicated by *t*-test for heteroscedasticity but not probability. This study adopts a more conservative approach (i.e. probability approach) and thus concludes that there is no significant difference for the path from Power to Control Belief Strength.

This study also reveals that male and female entrepreneurs ranked the four entrepreneurial values similarly and were also consistent with the overall ranking. These findings contradict Schwartz's (2007) conjecture that males emphasise 'agentic-instrumental' values such as Power and Achievement whereas females emphasise 'expressive-communal' values such as Benevolence and Universalism. The result on gender is in line with previous findings that gender has very little influence on value systems in the context of entrepreneurship (Brush, 1992; Fagenson, 1993). It seems that female entrepreneurs are more similar to, rather than different from, male entrepreneurs, that is, they are more like each other than anyone else (McGrath & MacMillan, 1992).

Although the paths from Behavioural Belief Strength, Normative Beliefs and Control Belief Strength to Export Intention across gender are not significantly different, the relative importance of Behavioural Belief Strength and Control Belief Strength on Export Intention differ. Female entrepreneurs are motivated by Control Belief Strength followed by Behavioural Belief Strength, but for male entrepreneurs it is the reverse.

By measuring and comparing accessible beliefs, we gain insights into the differences in the underlying cognitive between female and male entrepreneurs. For example, female entrepreneurs believe it is important to overcome Unfavourable Domestic Market Condition. Although Normative Beliefs have no significant impact on Export Intention for both sexes, male entrepreneurs consider Government and Partner(s), but female entrepreneurs consider Parents.

Table 5.1 Comparison of salient beliefs across gender

Belief	Female entrepreneurs	Male entrepreneurs
Behavioural Belief Strength	Overcome unfavourable domestic market condition	-
	Reduce risk through market diversification	Reduce risk through market diversification
	Increase sales and profit	Increase sales and profit
	Make my company more competitive	Make my company more competitive
	Make my company successful in the long-term	Make my company successful in the long-term
Normative Beliefs	Other people who are important to me	Other people who are important to me
	SME associations	SME associations
	-	Government
	My parents	-
	My friend(s)	My friend(s)
	My network members	My network members
	My peers	My peers
	My spiritual mentor(s)	My spiritual mentor(s)
	My business mentor(s)	My business mentor(s)

	My role model(s)	My role model(s)
	-	My business partner(s)
Control Belief Strength	Ability to recognise a potential export opportunity	Ability to recognise a potential export opportunity
	-	Export capabilities
	International experience	International experience
	Flexibility to adapt to export market(s)	Flexibility to adapt to export market(s)
	Technology	Technology
	International market orientation	International market orientation
	International and domestic networking	International and domestic networking
	Confidence to succeed in new export market(s)	Confidence to succeed in new export market(s)
	Knowledge about export market(s)	Knowledge about export market(s)
	Entrepreneurial orientation	Entrepreneurial orientation

#### 5.3.4.2 Similarities and differences across ethnic groups

For Malay entrepreneurs, Self-direction and Stimulation play a significant role in forming their Behavioural Belief Strength, Normative Beliefs and Control Belief Strength. In addition, as they are posited to be more collectivistic, as such, in their desire to express Self-direction and Stimulation, they also consider Normative Beliefs.

Malay entrepreneurs are driven by both Behavioural Belief Strength and Control Belief Strength in their Export Intention. This would indicate that the Theory of Planned Behaviour explains Malay entrepreneurs better than Chinese entrepreneurs. At the same

time, this finding can also be interpreted to mean that Malay entrepreneurs are driven by both desirability and feasibility in their Export Intention.

Although Malay entrepreneurs are theorised to be high on religiosity (Lim & Abdullah, 2001) and religiosity is posited to be negatively correlated with Self-direction, Achievement and Power (Schwartz, 2003), the findings reveal Malay small and medium-sized entrepreneurs exhibit similar value ranking with their counterparts both in Malaysia and Europe. This finding potentially points to the universality of entrepreneurial values.

Interestingly, Chinese entrepreneurs seem least influenced by entrepreneurial values. Although their cognitive process for Export Intention appears simple, the proposed integrative framework explained more variance in Chinese entrepreneurs' Export Intention than their Malay peers.

The findings suggest that Chinese entrepreneurs only take cognizant of Behavioural Belief Strength in their export intention. It can also be interpreted to mean that Chinese entrepreneurs are driven by desirability alone in their Export Intention. This interpretation is reasonable in light of extant literature. For example, when entrepreneurs perform new combinations such as opening a new market, a primary task is to employ existing resources in a different way and in doing new things regardless of whether those resources increase or not (Schumpeter, 1959). Another example is the typical character of the entrepreneur to 'find a way' because one definition of entrepreneurship is the process by which individuals pursue opportunities without regard to resources they currently control (Stevenson, Roberts and Grousbeck, 1989 cited in Stevenson & Jarillo, 1990).

Furthermore, the findings also lend credence to the literature that ethnic groups adjust to the resources which differ substantially across societies (Aldrich & Waldinger, 1990). The results are interpreted to mean that entrepreneurship is not necessarily driven by both desirability and feasibility. From a managerial point of view, this researcher reflected on a personal experience with an entrepreneur. As a marketing manager, this researcher's (former) job is to secure the order and the entrepreneur's job is to find the supply.

The proposed integrative framework provides a way of explaining entrepreneurial diversity across ethnic group with hypotheses tested at two levels, that is, cross-culturally and intra-culturally (Berry and Dasen, 1989 cited in Leung, 1989). Overall this integrative framework is generalisable for these two ethnic groups except the paths from Self-direction to Control Belief Strength and Control Belief Strength to Export Intention.

Overall, this study found that Malay entrepreneurs seem to be more motivated and also more inclined to export to new market(s) in the future compared with Chinese entrepreneurs. The higher motivations of Malay entrepreneurs may be explained in terms of the encouragement, assistance and support provided by various government agencies in Malaysia (see Dana, 2001; Gomez, 2013; Isenberg, 2010; Ratuva, 2013). With all these efforts by the government, it has probably resulted in Malay entrepreneurs' strong beliefs about the availability of enabling factors for exporting to new market(s) in the future. Thus, it is reasonable to argue that the Malaysian entrepreneurship development programmes have been successful to increase the occurrence of export by Malay entrepreneurs.



This study also reveals that Malay and Chinese entrepreneurs ranked the four entrepreneurial values similarly and are also consistent with the overall ranking. Nonetheless, there are significant differences between Malay and Chinese small and medium-sized entrepreneurs with respect to Self-direction and Stimulation. This finding is partially consistent with prior findings that ethnicity causes value differences (Prince-Gibson & Schwartz, 1998; Schwartz & Rubel, 2005) but contradicts previous research using Schwartz's Values Survey (SVS) instrument that Malays and Chinese only differ in the value of Achievement (Fontaine & Richardson, 2005).

The higher level of Self-direction of Chinese entrepreneurs relative to Malay entrepreneurs is in line with prior literature on culture and entrepreneurship (e.g. Abdullah, 1996a; Mohamed, 1990; Tan, 2002; Yeh, 1988). It is generally agreed that Chinese are more individualistic which is reflected in a higher Self-direction, whereas Malays are more collectivistic. At the same time, the contradiction *via-a-vis* Fontaine and Richardson's (2005) finding may mean that the Chinese entrepreneurs' current higher emphasis on Self-direction than in the past could be due to changes in the social-political environment. Traditionally, Malays are involved to a lesser degree in entrepreneurial activities (Isenberg, 2010). However, after years of government policies to promote entrepreneurship among Malays, the higher level of Stimulation among Malay entrepreneurs relative to Chinese entrepreneurs may signal the emergence of a new generation of Malay entrepreneurs driven by 'excitement, novelty and challenge in life' of entrepreneurship exemplified by a daring, varied life and an exciting life, shifting from a reserved, natural and placid life (Mohamed, 1990).

This study extends scientific inquiry into entrepreneurship through the re-examination of the psychology of entrepreneurs using a tested and contemporary measurement instrument. The use of a Malaysian entrepreneur sample also extends the empirical scope of entrepreneurial value priorities. Overall, the triangulation of various results potentially adds to the validity of universal entrepreneurial value priorities.

In summary, the current study suggests that Malaysian entrepreneurs are likely to rank values in a similar fashion as other entrepreneurs in previous studies and thus reinforce the notion of universal entrepreneurial value priorities. In other words, the value priorities of entrepreneurs seem to transcend national boundaries. This universality of entrepreneurial value priorities and its possible changes over time merit ongoing research due to its broad implications for entrepreneurship theory development, managerial practices and public policy.

From this study, the hierarchy among the different value types that are simultaneously relevant to entrepreneurship can be determined. It has resulted in insights into the two important values held by Malaysian small and medium-sized entrepreneurs, namely, Self-direction and Achievement. The findings reported here are consistent with other recent entrepreneurship studies that autonomy (conceptually similar to Self-direction) is an important value of entrepreneurship. Contrary to popular belief, risk-taking (which is a component of Stimulation) and Power are the two least motivating forces among the four entrepreneurial values studied.

Overall, the *t*-test results suggest that the differences in Self-direction and Stimulation can be attributable to ethnicity, not gender or current exporting status.

The results on path coefficients reveal the motivations for Export Intention to new market(s) in the future for the two ethnic groups under investigation. In contrast to the supposition that different ethnic groups with different values and expectations about the likely consequences together with the access to resources to explain the differences in entrepreneurial venture (Fayolle et al., 2014), this study found that the cognitive process from beliefs to Export Intention is different for Malay and Chinese entrepreneurs. These findings are in line with the theory that the relative importance of the three determinants of intention will depend upon both the behaviour and the population under investigation (Ajzen, 2006; Fishbein & Yzer, 2003). For example, Malay entrepreneurs are primarily motivated by Control Belief Strength followed by Behavioural Belief Strength. It means that Control Belief Strength is a stronger predictor of Malay entrepreneurs' Export Intention. In other words, Malay entrepreneurs are driven firstly, by enabling factors and secondly, by the advantages of exporting to new market(s) in the future. On the other hand, Chinese entrepreneurs are motivated solely by Behavioural Belief Strength or the advantages of export.

The impact of Normative Beliefs on Export Intention is non-significant for both groups which is consistent with previous research (Krueger et al., 2000; Linan & Chen, 2009) and provides further support that Normative Beliefs is irrelevant in the context of entrepreneurship. Nevertheless, there is a vast difference between Malay and Chinese entrepreneurs. Malay entrepreneurs are more concerned about individuals or groups who approve or disapprove their export to new market(s) in the future and are also more

motivated to comply with these referents. On the other hand, Chinese entrepreneurs are less concerned with Normative Beliefs. These results are in line with the popular beliefs that Malays are more collectivist, whereas Chinese are more individualistic (Abdullah, 1996a; Yeh, 1988).

In addition, the current study provides valuable information about similarities and differences in terms of the salient beliefs underlying cognitive motivations for both ethnic groups (Table 5.2). For instance, Chinese entrepreneurs consider more factors of advantage pertaining to export to new market(s) in the future than Malay entrepreneurs. Although Normative Beliefs is not a significant predictor of Export Intention, it is interesting to find that Malay entrepreneurs take on board the opinions of spiritual mentor(s) which is consistent with the notion that Malays are more religious (Lim & Abdullah, 2001). This referent is presently not researched in the field of entrepreneurship to the best of this researcher's knowledge. On the other hand, network members are a significant referent for Chinese entrepreneurs.

Table 5.2 Comparison of salient beliefs across ethnic groups

Belief	Malay entrepreneurs	Chinese entrepreneurs
Behavioural Belief Strength	-	Overcome unfavourable domestic market condition
	-	Reduce risk through market diversification
	Increase sales and profit	Increase sales and profit
	Make my company more competitive	Make my company more competitive
	Make my company successful in the long-term	Make my company successful in the long-term
Normative Beliefs	Entrepreneurial orientation	Entrepreneurial orientation
	SME associations	SME associations
	Government	Government
	-	Network members
	Spiritual mentor(s)	-
	Business mentor(s)	Business mentor(s)
	Role model(s)	Role model(s)
	Business partner(s)	Business partner(s)
Control Belief Strength	Ability to recognise a potential export opportunity	Ability to recognise a potential export opportunity
	Export ability	Export ability
	International experience	International experience
	Flexibility	Flexibility
	-	International market orientation
	Confidence to succeed in new export market(s)	Confidence to succeed in new export market(s)
	Knowledge about export market(s)	Knowledge about export market(s)
	Entrepreneurial orientation	Entrepreneurial orientation

#### 5.3.4.3 Similiarities and differences across current exporting status

Exporters are mainly motivated by Self-direction, which in turn drive their Behavioural Belief Strength and eventually Export Intention. Although they are also driven by Stimulation to export and consider Control Belief Strength, the availability or non-availability of factors does not seem to affect their intention to export. Finally, they value

Achievement and take Normative Beliefs into account but will make their own decision with respect to Export Intention.

Exporters are more inclined to seek new market(s), probably spurred on by success and experiences gained in their present export market(s). Among exporters, Malays have higher intention than Chinese to export to new market(s). One plausible explanation is the various assistance offered by a variety of government agencies to assist Malay small and medium-sized entrepreneurs have resulted in their higher export intention.

Non-exporters are the only sub-group with significant path from Normative Beliefs to Export Intention, albeit at a significant level of 0.1. Interestingly, three entrepreneurial values influenced non-exporters' Normative Beliefs, which mean that although they are driven by three entrepreneurial values, they are more inclined to seek the opinions of referents with respect to their Export Intention. There is an inverse relationship between Self-direction and Normative Beliefs, indicating a trade-off between Self-direction and Normative Beliefs. Non-exporters perceived the importance of Control Belief Strength followed by Normative Beliefs in the formation of Export Intention. The non-significance of Behavioural Belief Strength is interpreted to mean that, due to their current non-exporting status, they may not perceive the benefits of exporting yet.

A comparison of salient beliefs across current exporting status yields the following insights into the underlying cognitive foundation (Table 5.3). For non-exporters, one possible reason for their lower Export Intention is, they have yet to encounter unfavourable domestic market conditions as well as the need for market diversification. It is possible that these non-exporters are contended with the demands from the domestic market which is still at the growth stage of the product life cycle. At the same time, non-

exporters do not foresee that they will possess the enabling factors of ‘International experience’, ‘Necessary resources and knowledge’ about export market’ in the foreseeable future, hence, lowering their Export Intention.

Table 5.3 Comparison of salient beliefs across current exporting status

Belief	Exporters	Non-exporters
Behavioural Belief Strength	Overcome unfavourable domestic market condition	-
	Reduce risk through market diversification	-
	Increase sales and profit	Increase sales and profit
	Make my company more competitive	Make my company more competitive
	Make my company successful in the long-term	Make my company successful in the long-term
Normative Beliefs	My family	My family
	Other people who are important to me	Other people who are important to me
	SME associations	SME associations
	Government	Government
	My parents	-
	My friend(s)	My friend(s)
	My network members	My network members
	My peers	My peers
	My spiritual mentor(s)	My spiritual mentor(s)
	My business mentor(s)	My business mentor(s)
	My role model(s)	My role model(s)
	My business partner(s)	My business partner(s)
Control belief strength	Ability to recognise a potential export opportunity	Ability to recognise a potential export opportunity

	Export capabilities	Export capabilities
	International experience	-
	Flexibility to adapt to export market(s)	Flexibility to adapt to export market(s)
	Technology	Technology
	Resources	-
	International market orientation	International market orientation
	International and domestic networking	International and domestic networking
	Confidence to succeed in new export market(s)	Confidence to succeed in new export market(s)
	Knowledge about export market(s)	-
	Entrepreneurial orientation	Entrepreneurial orientation

#### 5.3.4.4 Similiarities and differences across unobserved segments

Observed heterogeneity refers to moderating variables such as gender, ethnicity and current exporting status, whereas unobserved heterogeneity refers to segments identified by finite mixture Partial Least Squares (FIMIX-PLS). FIMIX-PLS analysis sheds new light on the existence of a small segment of small and medium-sized entrepreneurs. This segment (Segment One) is rather complicated in their motivations and as such, only several significant paths will be discussed. This complexity is probably due to their great diversity as compared to the more homogenous Segment Two.

The respondents in Segment One are very much motivated by the excitement, novelty and challenge in life to consider the advantages of exporting to new market(s) in the future. Their desire for social status and prestige, control or dominance over people and resources has led them to seek resources to enable exporting. At the same time, even though they are driven by personal success, they are inhibited by the lack of enabling factors to export. The respondents are significantly overwhelmed by the perceived



referents' disapproval of their Export Intention.

Relative to Segment One, Segment Two is simple. Respondents in Segment Two are driven by independent thought and action to consider the advantages of exporting which eventually form their Export Intention. Though not driven by any particular entrepreneurial value, they are also motivated by enabling factors in their Export Intention. Behavioural Belief Strength has a greater impact on Export Intention in relation to Control Belief Strength and this finding is consistent with extant empirical evidence (e.g. Linan & Chen, 2009) and that entrepreneurs pursue opportunities without regard to the resources they currently control (Stevenson & Jarillo, 1990). It is speculated that Segment Two mainly consists of experienced exporters.

With regards to salient beliefs, Segment Two takes into consideration family and parents, whereas Segment One has more referent groups to consider, which probably explains their significant and negative path coefficient from Normative Beliefs to Export Intention (Table 5.4). Consistent with the speculation that Segment Two mainly consists of experienced exporters, they seem to take the following factors for granted relative to Segment One: 'Export capabilities', 'International experience and knowledge about export market(s)'.

Table 5.4 Comparison of salient beliefs across unobserved segments

Belief	Segment One	Segment Two
Behavioural Belief Strength	Increase sales and profit	Increase sales and profit
	Make my company more competitive	Make my company more competitive
	Make my company successful in the long-term	Make my company successful in the long-term
Normative Belief Strength	-	My family
	Other people who are important to me	Other people who are important to me
	-	My parents
	My friend(s)	My friend(s)
	My network members	-
	My peers	-
	My spiritual mentor(s)	-
	My business mentor(s)	-
	My role model(s)	-
Control Belief Strength	Ability to recognise a potential export opportunity	Ability to recognise a potential export opportunity
	Export capabilities	-
	International experience	-
	Flexibility to adapt to export market(s)	Flexibility to adapt to export market(s)
	International market orientation	International market orientation
	Confidence to succeed in new export market(s)	Confidence to succeed in new export market(s)
	Knowledge about export market(s)	-
	Entrepreneurial orientation	Entrepreneurial orientation

Overall, FIMIX results reveal that there are no significant unobserved segments that could seriously bias the results in this study.

### **5.3.5 Research objective number six - To facilitate a greater level of exporting by SME entrepreneurs**

The SME Masterplan (2012 – 2020) High Impact Programme Going Export is an ambitious plan to uplift the contributions from the SME sector in Malaysia. However, the lack of insights regarding SME entrepreneurs' motivations to export could threaten its success. Moreover, the plan explicitly ignores differences in sector, ethnicity and gender and in view of the differences found in this study, the plan may not achieved its stated targets. For greater efficiency and effectiveness, public policy should be tailored to SME entrepreneurs' specific needs rather than a one-size-fits-all solution. Therefore, the findings from this study could be of immediate benefit to Small and Medium Industries Development Corporation (SMIDEC) to fine tune its plan. The insights generated are equally useful for Malaysia External Trade Development Corporation (MATRADE), MARA and SME organizations.

### **5.4 Contributions of study**

Through rigorous research, this study aims to generate informed knowledge for the benefits of relevant entrepreneurial stakeholders, such as academics, practitioners and policy makers. There are two classes of theoretical developments: improvements in the understanding of the field itself (i.e. substantive theory) and improvements in the methodologies relevant to the field (i.e. methodological theory). Furthermore, there are two classes of substantive theory: theory for understanding (i.e. increasing the simplicity of explanation and the breadth of fundamental understanding of the broad concepts of a field) and theory for use (i.e. discovering ways to improve practice and to synthesise complex phenomenon for the use of practitioners in the field) (Churchhill & Lewis,

1986). This classification is illustrated in Figure 5.2. The following sections position the contributions of this research in terms of theory for understanding and theory for use.

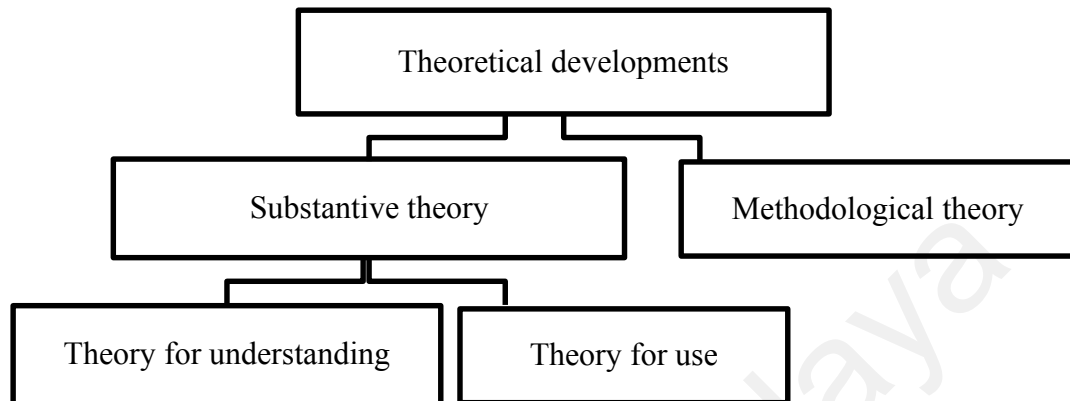


Figure 5.2 Classification of theoretical developments

#### 5.4.1 Theoretical contributions

It is important that entrepreneurship research becomes more theory driven (Davidsson et al., 2001). At the same time, the nature of entrepreneurship demands a multi-disciplinary approach in order to generate a systematic and more holistic body of knowledge about entrepreneurship (Shane & Venkataraman, 2000). The proposed integrative research framework represents a progression towards a richer and more dynamic approach (Low & MacMillan, 1988). The significant theoretical contributions to the international entrepreneurship literature from this study are in three areas, namely, international entrepreneurship theory, multi-disciplinary integration and intra-national diversity.

This study contributes to substantive knowledge in international entrepreneurship in several areas. First, individually, both the Values Theory and the Theory of Planned Behaviour have discussed expansion. Based on extensive literature review, this study cites relevant and important works, making linkage to these two established theories in

order to develop a clear, logical, multi-disciplinary and coherent integrative framework for scientific scrutiny in the domain of international entrepreneurship. This theory-driven and empirically supported research framework constitutes an endeavour to fill gaps in the existing literature and pushes back the boundaries of knowledge by providing compelling and logical justifications for an altered view.

Moreover, this proposed integrative theoretical model significantly enhances our understanding of SME entrepreneurs' motivations to export to new market(s) in the future and can be viewed as an attempt to develop a cognitive export process model at the individual level of analysis. This study adds to the entrepreneurship theory by expanding prior works on entrepreneurs' psychological characteristics from values perspective (McGrath et al., 1992b), that is, using the Values Theory. In addition to investigating the causal effects from entrepreneurial values to beliefs to export intention, this model also sheds new light on pertinent aspects of entrepreneurial values and salient beliefs in the context of export by SME entrepreneurs. Evidence suggests that not all dimensions of value as postulated in the entrepreneurship literature are relevant. To a certain extent, this study made progress toward understanding the impact of values on entrepreneurship, rather than using 'black box' explanation (Earley & Singh, 1995; Kirkman et al., 2006). In other words, this study moves the knowledge about the impact of entrepreneurial values on export intention yet one step ahead.

This proposed integrative model can serve as a foundation for future research to build an entrepreneurial mental model that includes international opportunity search, identification and exploitation. Additionally, because this study draws the idea of integration from psychology (i.e. multiple levels of antecedent variables by Leung, 1989),

management (i.e. upper echelons theory by Hambrick, 2007; Hambrick & Mason, 1984) and entrepreneurship (Shapero & Sokol, 1982; Zahra & Wright, 2011), thus, the proposed integrative framework is potentially applicable to other types of entrepreneurial intentions as well as psychology and management domains.

It is inappropriate to use the term ‘cultural value’ in entrepreneurship as culture and values are not synonymous. Although values are influenced by culture, conceptually it is not appropriate to equate culture with values because values are at individual level, whereas culture is at group or nation level. It is noted that Hofstede and Schwartz do not use ‘culture’ and ‘values’ interchangeably. Because entrepreneurship is at the individual level, it is best to examine the influence of values instead of culture to avoid using predictor and criterion variables at different levels of analysis (Hisrich et al., 2007).

Additionally, this study enriches the academic conversation regarding the moderating effect of observed heterogeneity (such as gender, ethnicity and current exporting status) as well as unobserved heterogeneity on this integrative research framework. In other words, this study identifies similarities and differences in the behaviour of observed and unobserved heterogeneity so that “serious progress could be achieved in scientific knowledge if an answer is found to the question of the circumstances under which this relationship is extremely strong or extremely weak” (Henseler & Fassott, 2010, p. 716).

Finally, this study uses many diagnostic methods to establish measurement invariance in terms of construct equivalence, measurement equivalence, and data collection equivalence as suggested by Hult *et al.* (2008). With evidence of measurement invariance, this study reports a higher level of established data equivalence and

substantially enhances critical community's confidence in the empirical results and theoretical inferences.

#### **5.4.2 Practical contributions**

Researchers aspire to understand and make accurate predictions for behaviour in various countries and cultural settings (Earley & Singh, 1995). With this ability to understand and predict, researchers can solve applied problems and suggest appropriate government policies (Ajzen & Fishbein, 1980).

Using the deterministic model, this study is ultimately interested in behaviour modification objectives such as encouraging more export and enhancing the efficacy of education curriculum and training programmes to promote export (Carland et al., 1988). The practical contributions of this study lie in understanding sociology and psychology motivation for entrepreneurial export education and training purposes (Kent, Sexton, & Vesper, 1982). In the area of sociology, this study endeavours to identify the significant entrepreneurial values that, in turn, influence the psychology of attitude (or Behavioural Beliefs), subjective norm (or Normative Beliefs), perceived behavioural control (or Control Beliefs) and eventually Export Intention. With a better understanding of entrepreneurs' motivation in terms of how their values, attitude (or Behavioural Beliefs), subjective norm (or Normative Beliefs) and perceived behavioural control (or Control Beliefs) coalesce into the intention to export to new markets (Kickul & Zaper, 2000), this study increases the efficacy of education and training programmes targeted at SME entrepreneurs by raising perceptions of desirability and feasibility of export (Krueger et al., 2000). For example, changing SME entrepreneurs' beliefs on the positive

consequences of export could lead to a more positive attitude toward export and therefore, a higher export intention (Wiklund et al., 2003).

#### **5.4.3 Policy contributions**

The findings of this study are potentially useful in the design of effective public policies that facilitates more export and consequently, a larger contribution by SMEs to the economy of Malaysia. Specifically, what exactly are the entrepreneurial values, desirability and feasibility to encourage and how to go about doing them on an aggregate and disaggregate basis?

Empirical evidence suggests that some traits (or values) can be changed or inculcated (Hornaday, 1982). Besides that, values are relatively easier to influence compared with environmental factors (Davidsson, 1995). As such, public policy targeted at potential entrepreneurs should include the changing or inculcation of entrepreneurial values. At the same time, many researchers suggest that the optimal policies or social interventions designed to encourage entrepreneurship need to take cognizant of the values or risk failure (e.g. Davidsson, 1995; McGrath et al., 1992a; McGrath et al., 1992b) because motivational differences across countries can be striking (Thomas & Mueller, 2000). Often, governments simplistically try to transfer policies to promote entrepreneurial activities that have worked in one country to a totally different country (McGrath et al., 1992b).

Therefore, understanding the nature of relationship between values and entrepreneurship is essential so that development and implementation of public policies promote salient values that will aid rather than hinder the target population towards international entrepreneurship (Karahanna et al., 2005; M. W. Morris, 2014; Thomas &



Mueller, 2000; Triandis, 1972). In other words, it should be compatible, congruent and in harmony with the values of the entrepreneur (Tamam, 1997).

The operationalisation of the Theory of Planned Behaviour provides a host of extremely useful information (or critical beliefs underlying the determinants) to understand intention (Fishbein & Yzer, 2003). Attitude toward the behaviour (or Behavioural Beliefs), subjective norm (or Normative Beliefs), perception of behavioural control (or Control Beliefs) and intention each reveals a different aspect of the intention. As such, the salient beliefs identified from theory and empirical evidence in this study can be useful in designing effective interventions to develop, strengthen or change intention to perform a recommended behaviour (Ajzen, 1991; Fishbein & Yzer, 2003). Interventions focused at changing the Behavioural, Normative or Control Beliefs may succeed in producing corresponding changes in attitude, subjective norm and perception of behavioural control and eventually influence intention in the direction desired (Ajzen, 1991). It is often easier to produce change by introducing information designed to lead to the formation of new beliefs than it is to change existing beliefs (Ajzen, 2006).

In summary, the proposed integrative framework is a valuable tool for public policy implementers to identify potential international entrepreneurs who possess strong motivations to export to new market(s) in the future. Public policies aimed at developing, encouraging and supporting SMEs' exporting to new market(s) in the future can provide incentives for these salient beliefs.

## **5.5 Implications of research**

This section will elaborate the implications for theory, methodology, practice and public policy arising from this study.

### **5.5.1 Theoretical implications**

This study provides insights into the relevance and applicability of borrowed theories from sociology and psychology (i.e. the Values Theory and the Theory of Planned Behaviour) into the context of international entrepreneurship. Secondly, these theories which are typically developed in Western cultures are tested in the Malaysian context in order to know their contextual limitations (i.e. generalisability or universality) (Berry, 1969; Karahanna et al., 2005; Thomas & Mueller, 2000; Whetten, 1989; Zahra, 2007).

#### **5.5.1.1 Feedback to the Values Theory**

The empirical evidence attests to the nomological validity of the structural relations among the four hypothesised entrepreneurial values as depicted in Figure 5.3. Moderator effects imply that theories need to be altered based on cultural contingencies (Kirkman et al., 2006) but the Values Theory is robust across gender, ethnicity and current exporting status because the moderator effect is minimal, most likely due to the universal entrepreneurial value priorities. Thus, this study provides empirical evidence to support the pan-cultural typology of values (Leung & Bond, 2004).



Figure 5.3 Structural relations among hypothesised entrepreneurial values (Adapted from Schwartz, 1994; Schwartz & Sagiv, 1995)

This research concurs that the Values Theory is easy to generate systematic, coherent hypotheses that relate the value priorities to other variables. Schwartz (2007) posits that the Values Theory represents the broad and basic motivations that enrich analysis, prediction and explanation of a wide variety of value-behaviour relations across the different domains of life. However, values are distal variables for behaviour and the addition of intervening variables such as the Theory of Planned Behaviour will generate a more useful process model at the individual level of analysis. The results of this study suggest the utility of the proposed integrative framework. Although at present the Values Theory is not widely researched in the domain of entrepreneurship, it has the potential to enrich existing literature concerning the notion of entrepreneurial values.

#### 5.5.1.2 Feedback to the Theory of Planned Behaviour

This study is probably the first to apply the Theory of Planned Behaviour in the context of export by SME entrepreneurs. Overall, results indicate its utilities. Moreover, this study moves beyond previous researches by adopting the belief composites approach to

identify salient beliefs pertaining to export by SME entrepreneurs. Hopefully this study will spur more future research to adopt the belief composites approach.

Overall, results indicate that it is possible to include additional predictors in the Theory of Planned Behaviour model, especially antecedents or background variables as postulated by Ajzen. This inclusion of additional predictors can significantly enhance our understanding of SME entrepreneurs' motivation to export to new market(s) in the future.

Generally, promoting intention or entrepreneurial intention involves both feasibility and desirability (Ajzen, 1991; Krueger et al., 2000; Shapero & Sokol, 1982). However, the results of this study reveal that ethnic groups adjust to the resources which differ substantially across societies (Aldrich & Waldinger, 1990). The implication is that international entrepreneurship is not necessarily driven by both feasibility and desirability. Under certain circumstances, international entrepreneurship may be solely driven by desirability.

The non-significance of Normative Beliefs on Export Intention corroborates with previous studies in an entrepreneurship setting. In addition to attributing this non-significance to behaviour and population under investigation (Fishbein & Yzer, 2003), this non-significance can be explicated by tracing the previous level of antecedent in the proposed integrative framework, particularly Self-direction. Hence, the proposed integrative framework revises the 'How' and 'What' of the Theory of Planned Behaviour to accommodate this new information (Whetten, 1989). The theoretical critique is to extend the Theory of Planned Behaviour when applied to the domain of entrepreneurship or other similar settings.

In an endeavour to address the non-impact of subjective norm on entrepreneurial intention, several suggestions have been forwarded. For example, Krueger *et al.* (2000) suggest specifying different measures as well as multiple-item measures; Davidsson *et al.* (2001) propose more referents and Linan and Chen (2009) suggest alternative measures of subjective norm, that is, belief composites approach. Despite incorporating these suggestions into this study, the results reveal that Normative Beliefs is non-significant in predicting Export Intention. Although far from conclusive, these results support the notion that subjective norm (or Normative Beliefs) does not predict entrepreneurial intention irrespective of individualistic or collectivistic society.

Despite little research to investigate subjective norm of network members, Krueger *et al.* (2000) conjecture that the subjective norm of network members may have greater impact than family members and friends on intention. However, analysis of Normative Beliefs reveals that the impacts of these three referent groups are about the same.

It is suggested in the literature that subjective norm is less predictive of intention for subjects with a high internal locus of control (Ajzen, 1987 cited in Krueger *et al.*, 2000) and internal locus of control is similar to Self-direction (Looi, 2013). This will mean that high scores on self-direction will diminish the effect of subjective norm (or Normative Beliefs) on Export Intention. Once again, this explanation demonstrates the utility of the proposed integrative framework.

Moderator effect implies that theory needs to be altered based on cultural contingencies (Kirkman *et al.*, 2006). The analysis by observed heterogeneity (gender, ethnicity and current exporting status) and unobserved heterogeneity (Segments One and Two) lends credence to the theory that the relative importance of the determinants of

intention (except subjective norm or Normative Beliefs) will depend on the population under investigation (Ajzen, 2006; Fishbein & Yzer, 2003).

### **5.5.2 Methodological implications**

This scientific inquiry is guided by the post-positivist paradigm. To recap, in terms of ontology, this paradigm assumes that reality exists but can never be fully apprehended; hence, hedging words are used. In terms of epistemology, this paradigm assumes that the inquirer can be separated from the knowable but subject to external guardians; hence, this study uses the third party (that is, this researcher) and is subject to comments and critiques from the academic community. Finally, in terms of methodology, the findings in the present study is based on as many sources as possible – data, investigators, theories and methods. For example, instead of interpreting the results of each PLS test independently which is the norm, this study synthesises the results of various tests for a broader understanding of the phenomenon under investigation.

Overall, results suggest empirical support for the proposed integrative framework, thus adding credence to the hypothesis that entrepreneurial values impact entrepreneurial beliefs and Export Intention. It is believed that the use of a Malaysian entrepreneur sample extends the empirical scope of entrepreneurship literature.

To the best of this researcher's knowledge, this research is probably the first to operationalise and validate the belief items in the Theory of Planned Behaviour in the domain of international entrepreneurship. An instrument is typically constructed within a particular cultural environment and is likely to be idiosyncratic, for example, in the formulations of items (Poortinga, 1989). However, the measurement invariance tests

provide evidence that the items in the present study are reasonably well-developed on the basis of the Theory of Planned Behaviour and relevant literature to measure the constructs of interest and hence, add to the body of knowledge in international entrepreneurship. This validated instrument can become a reference point for future similar research.

In contrast to other studies that merely describe the demographic characteristics of the sample, this study took the analysis one step further with a multi-group analysis based on gender, ethnicity and current exporting status to generate additional and interesting insights.

Despite the increasing popularity of Partial Least Squares (Hair et al., 2014), there are some tests recommended in Partial Least Squares literature but, to date, not incorporated into SMARTPLS software. Some examples would include testing of outlier, normality, *t*-test and probability. Therefore, even though Partial Least Squares is a viable alternative to the more popular covariance-based SEM approach, the users of Partial Least Squares will have to be competent in operating several different statistical softwares in order to perform a thorough data analysis.

Multi-group analysis (MGA) is becoming increasingly common in Partial Least Squares to test for the moderation effect of observed and unobserved heterogeneity. This study applied the techniques of *t*-test and probability for a proper multi-group analysis. Although testing for measurement invariance is a pre-requisite for multi-group analysis in Partial Least Squares, but, to date, no Partial Least Squares literature has explicitly explained the procedures for testing measurement invariance to the best of this researcher's knowledge. As a result, testing of measurement invariance is either not done or done incorrectly. This problem is complicated by the unavailability of multi-group

analysis and multi-group Confirmatory Factor Analysis techniques in SMARTPLS software.

In contrast, this issue is rather well-addressed in covariance-based Structural Equation Modelling (CB-SEM) where multi-group Confirmatory Factor Analysis (MG-CFA) is available in covariance-based software such as AMOS to test measurement invariance. Therefore, this issue needs to be addressed as the continuing lack of a measurement invariance testing procedure in the context of Partial Least Squares which could impede progress in the empirical application of multi-group analysis. In other words, when there is no evidence indicating presence or absence of measurement invariance, the tests for differences, as well as the basis for drawing scientific inference, is severely lacking and conclusions are equivocal (Horn & McArdle, 1992).

### **5.5.3 Practical and public policy implications**

Besides statistical significance, the literature also recommends establishment of practical significance, the 'so what?' to link findings and practice in important fashion (Hair et al., 2006). The Going Export Programme initiative under the Malaysian SME masterplan aims to develop more and better international entrepreneurs. As such, a deeper and richer understanding of the dynamic process by which export intention evolves can raise small and medium-sized entrepreneurs' export intentions as well as make their export intentions more realistic. The utilities of the theoretically-grounded and empirically supported integrative framework lie in several areas.



First, entrepreneurship education and training programmes could benefit from this new knowledge by highlighting and incorporating the values associated with international entrepreneurship. To avoid the danger of trans-locating education and training programmes from the West, a pre-requisite is to understand participants' values and mindset (Dana, 2001).

Second, with the insights gained from this study, especially for observed heterogeneity (gender, ethnicity and current exporting status) and unobserved heterogeneity (Segments One and Two), it is possible to affect SME entrepreneurs' beliefs about exporting through changing or forming salient beliefs or entrepreneurial motivations identified to have a strong influence on Export Intention. Communities, trade associations, trainers and other stakeholders will be able to take specific actions related to these salient beliefs that, in turn, will promote the SME entrepreneurs' Export Intention, particularly among non-exporters.

By identifying salient accessible beliefs that drive Export Intention, we gain insights into the underlying cognitive foundation of SME entrepreneurs. This information is invaluable in designing effective behavioural intervention programmes that aim to change SME entrepreneurs' beliefs and strengthen their Export Intention.

Although it is often easier to produce change by introducing information designed to lead to the formation of new beliefs than it is to change existing beliefs (Ajzen, 2006), in reality, it may not be easy for entrepreneurs to adopt new beliefs or change existing beliefs. Recently, Morris (2014) argues for the rationalisation of beliefs (whether new or existing) to one's existing values. This suggestion may be applied to SME entrepreneurs to reinforce their Export Intention. Morris's (2014) argument attests to the utility of the

proposed integrative framework as both the pertinent values and salient beliefs pertaining to export are captured and their relationships analysed simultaneously. Moreover, to rationalise beliefs, the relevant value or values are already known from their structural relationships and this knowledge will result in a more effective intervention programmes.

Government in many countries try to promote entrepreneurship as well as export by small and medium-sized enterprises with an aim for a positive effect on economic growth. Contrary to the view that individual propensities to engage in entrepreneurship may not be very susceptible to policy measures due to the stability of values (Freytag & Thurik, 2010b), based on this initial enquiry, it may be reasonable to argue that the Malaysian government has succeeded, to a certain extent, to encourage Malay SME entrepreneurs to engage in export.

The insights from this study provided additional information for consideration by public policy makers who currently adopt a generic approach to SME development, that is, irrespective of sector, gender, and ethnicity (SME Masterplan 2012 – 2020, p. 37). Public policy to promote entrepreneurship needs to consider values and beliefs of target population (McGrath et al., 1992b). A ‘one-size-fits-all’ public policy to promote international entrepreneurship is unlikely to be effective as this study demonstrates that different groups and segments are motivated by different forces. Depending on the target group, public policy designed to facilitate international entrepreneurship can be directed at one or more of its determinants: Behavioural Belief Strength, Control Belief Strength or Normative Beliefs. Therefore, the policy implication from this study is that policy makers now know exactly what to encourage for different groups so that policies are compatible with different entrepreneur groups.

At the same time, public policy makers should not neglect the unobserved segments. For example, the unobserved Segment Two represents the most ready group to venture into new market(s) in the future as they are driven by the most important entrepreneurial value of Self-direction and are rational in their cognitive process towards export.

In sum, the results of this study inform the construction of differentiated and segment-specific public policy targeted at different sub-populations of SME entrepreneurs to train, nurture, support and incentivise their sociological and psychological motivation to export to new market(s) in the future. There is even a possibility of national synergy of division of labour where the strengths of certain groups can be harnessed to enter certain international markets to achieve greater effectiveness. All these efforts to facilitate international entrepreneurship among SMEs can further the position of Malaysia in world trade.

### **5.6 Limitations of study**

It is almost impossible for a researcher to know all the potential limitations of a theory's applicability (Whetten, 1989). Nevertheless, several limitations are identified in this study. In line with prior studies using the Theory of Planned Behaviour, firstly, this study omits feedback loops at various stages of the Theory of Planned Behaviour. In other words, this structural model is recursive (Hair et al., 2014) where feedback from behaviour to beliefs (Fishbein & Ajzen, 1975) and to values are omitted. Secondly, this study also excludes interactions among antecedents of intention.

Thirdly, this study controlled several extraneous variables in order to establish internal validity. On the other hand, the threat to external validity is the findings are specific to the SME entrepreneurs studied. Moreover, the findings are specific to the

particular context of export by SME entrepreneurs from food, beverages and the agriculture produce industry in Malaysia. Nevertheless, there is no construct effect, which means the particular constructs studied are not specific to any group as shown by measurement invariance tests.

The results should be taken with caution because the observed similarities and differences are limited to the two specific groups involved, that is, Malays and Chinese.

### **5.7 Suggestions for future research**

Stage 6 of the structured approach to multi-variate model building is to validate the multi-variate model, which is validating the generalisability of the results to the total population. This step is to ensure that the results are the most descriptive of the data and generalisable to the population (Hair et al., 2006).

The proposed integrative model is still at exploratory stage and should be considered more suggestive than conclusive. Additional work is needed to move from validation of theoretical model in limited situational context to cross-validation of theory in more real life situations (Paulin et al., 1982). Specifically, in order to empirically determine how robust or generalisable is the proposed integrative framework (Amit et al., 1993; Johnson & Duberley, 2000), this work should be replicated in multiple countries, ethnic groups, industries and contexts, that is, relaxing the three controlled variables of product, stage of internationalisation and country. Additionally, a larger sample size may increase the reliability of this study.

Considering that the paths from beliefs to export intention in the Theory of Planned Behaviour are better researched whereas the paths from values to beliefs is only exploratory, the lower coefficient of determination ( $R^2$ ) for the three beliefs may signal

that more future research is needed in order to better understand the value-belief links.

The remaining six values that are hypothesised irrelevant to entrepreneurship are excluded in present study. It should be theoretically interesting for future research to use the trade-offs among motivationally opposed values that influence attitudes and behaviour to generate hypotheses about the relationships between values and other variables (Schwartz, 2007). For example, in another research directed at undergraduate sample (Looi, In press), Hedonism (which is positioned between Stimulation and Achievement) is found to be a significant and negative predictor of new venture intention.

Furthermore, it is suggested that future discussions of this emerging field of culture or values and entrepreneurship (Freitag & Thurik, 2010b) should be more specific rather than using the term 'cultural value'. It is believed that the distinction of entrepreneurial culture from entrepreneurial values will advance the research agenda for entrepreneurship.

In view of the invaluable information generated by the belief composites approach of the Theory of Planned Behaviour, future research can usefully employ this approach.

Due to time constraints to complete this thesis, the cross-sectional approach was chosen. Although the results obtained are satisfactory, it is speculated that a longitudinal research would provide greater explanatory and prediction power. If the issue of non-normality of data can be detected earlier and hence, PLS is warranted, the data collection process can be reduced by half and thus, hasten the Ph.D. candidature duration.

Finally, researchers need to be concerned not only with differences but the 'why' (Earley & Singh, 1995). Future qualitative research can add an interesting dimension and provide thick description by scrutinising the 'why' of export motivation.

## 5.8 Conclusions

One of the major components in a Doctor of Philosophy programme lies in theoretical contribution. Therefore, in this final section of thesis, the conclusions from this research are best anchored upon two influential articles: 'What Constitutes a Theoretical Contribution?' (Whetten, 1989) and 'Contextualising Theory Building in Entrepreneurship Research' (Zahra, 2007). The former is from a broad management perspective and the latter is specifically related to entrepreneurship.

Seven factors are considered in judging research papers (Whetten, 1989).

1. The paper should make a significant, value-added contribution to current thinking (What's new?).

This integration or extension pushes back the boundaries of both theories because the effects on Export Intention are traced through the more proximal antecedents of Behavioural Beliefs, Normative Beliefs and Control Beliefs and eventually, the distal antecedents of values. An alternative expression is the Values Theory gains from addition of proximal variables whereas the Theory of Planned Behaviour gains from addition of distal variables.

This approach helps to promote a more systematic, theory-guided research because the researcher is guided by a general framework recognised by many as useful and productive (Leung, 1989). Specifically, the use of more levels of antecedent variables is different from current thinking and should alter scholars' extant views. Additionally, this cognitive export process model at the individual level of analysis shed new light on pertinent aspects of entrepreneurial values and salient beliefs in the context of export by SME entrepreneurs.

2. The theory is likely to change the practice (So what?).

The proposed integrative framework remedies the deficiencies of current practice of using culture and values, characteristics of entrepreneur or the Theory of Planned Behaviour via more levels of antecedent variables for behavioural predictions.

Moreover, future discussions should not use the term 'cultural value' in entrepreneurship to avoid using predictor and criterion variables at different levels of analysis. At the same time, future studies should also refrain from discussing values generally and be precise about the relevant dimensions of entrepreneurial values because values is a multi-dimension notion.

3. The underlying logic and supporting evidence are compelling (Why so?).

This thesis is built on a foundation of convincing argumentation grounded in the extensive literature together with explicit assumptions as discussed in Chapter Two Literature Review. In addition, a sound methodological approach is utilised to generate results which are then interpreted in an explicit, reasonable and believable manner to render the findings useful to relevant stakeholders.

4. The paper reflects seasoned thinking, conveying completeness and thoroughness (Well done?).

This research was conducted over a relatively long period of time with a lot of thinking work put into it. Multiple theoretical elements of 'What', 'How', 'Why', 'Who' and 'Where' are covered to give this thesis completeness and thoroughness.

i) 'What', 'How' and 'Why'

The present study works on improving existing theories, as generally done by other scholars. It demonstrates that the integration of two theories can significantly enhance our understanding of the export motivation process beyond what the individual theory can offer.

ii) 'Who' and 'Where'

'Who' and 'Where' are the contextual factors that set the boundaries of generalisability. In this study, new application in the context of 'Who' and 'Where' not only reaffirms the utilities of these two theories but provide theoretical feedback loop or give back to theory. Firstly, critiques focused on multiple elements of the theory. For instance, the results reveal that there are different combinations of significant predictors for the aggregate population and various sub-populations. Hence, the significance of each construct in these two theories is contingent upon sub-population under investigation. Secondly, the theoretical critiques are supported by compelling evidence. For instance, empirical evidence from this study is consistent with prior findings that subjective norm is not a significant predictor of entrepreneurial intention. Thirdly, the theoretical critiques propose remedies via integration of these two theories. For example, instead of the normal practice of discounting contradictory results on the basis of measurement error, this study attributes the contradictory results of subjective norm to the antecedent variable of Self-direction, which is made possible by integrating these two theories.

The arguments put forward in this thesis reflect a broad and current understanding of the topic selected through extensive literature review in several related disciplines and is constantly updated with current articles. The recurring theme in recent published work



further indicates the relevance of this research. The continuous literature review indicates that, although the items in the beliefs constructs are not exhaustive, most of the important items of accumulated international entrepreneurship knowledge are covered in the current study. This researcher has developed these thoughts over six years of candidature and has been regularly informed by extensive peer inputs through conceptual and research results presented in local and overseas doctoral colloquiums and conferences.

To disseminate these thoughts and findings, a conceptual paper on the integrative framework and a research paper on entrepreneurial values have been published. Another two empirical manuscripts are under preparation for submission to ISI journals. Therefore, a total of four papers are generated from this study.

5. The paper is well written, flows logically and the central ideas easily accessed (Done well?).

This researcher realised that communication and writing skills are essential in a doctoral training. A substantial amount of time and effort has been spent writing and re-writing, revision after revision, editing after editing to make this thesis readable, understandable, coherent and flow logically to clearly present the central ideas. For the convenience of examiners and readers, flow charts are used at the beginning of each chapter to provide clear signposts.

6. Timeliness (Why now?).

This scholarly inquiry is of contemporary interest to scholars in this area as evidenced by recent literature, for example, *Psychology of Entrepreneurs* (Baum et al., 2007),

Entrepreneurship and Culture (Freytag & Thurik, 2010a), Personality and Entrepreneurship (Caliendo & Kritikos, 2012), International Entrepreneurship Research (1989 - 2009): A Domain Ontology and Thematic Analysis (Jones et al., 2011), Cultural Values and Entrepreneurship (Krueger et al., 2013) and Beyond Entrepreneurial Intentions: Values and Motivations in Entrepreneurship (Fayolle et al., 2014). This research answered many questions raised by Krueger *et al.* (2013) and Fayolle *et al.* (2014) and are likely to advance current discussions and stimulate new discussions.

#### 7. Relevance to stakeholders (Who cares?).

This topic is relatively narrow in appeal but hopefully, it will make a significant contribution to current thinking and research practice among like-minded researchers.

In summary, according to the seven criteria recommended by Whetten in the preceding discussions, it can be concluded that this study has made a theoretical contribution to the existing body of knowledge.

This theoretically grounded and rigorous research to integrate and test theories advances entrepreneurship as a scholarly field through offering compelling arguments, providing a fair test of these arguments, offering insightful explanations, generating several important insights and using findings to refine and enrich the borrowed theories. At the same time, this research paid particular attention to the context of investigations. Contextualising the research means theories chosen are linked to the research purposes (Zahra, 2007).

The phenomenon of export by SMEs is relatively new and the theories invoked are established, resulting in a moderate contextual richness (Zahra, 2007). Consequently,

theory can best be contextualised by firstly, establishing the relevance of theory to new phenomenon. This entrepreneurship research has borrowed theories from sociology, psychology and international business into entrepreneurship. Extant literature shows that the Values Theory and the Theory of Planned Behaviour have been applied in the context of entrepreneurship and hence, they are relevant. Moreover, to avoid mismatch which could result in wrong conclusions, inconclusive findings or questioning the utility of a chosen theory, this study endeavoured to understand the assumptions of these two theories and their track record of predictions in Chapter Two Literature Review.

Secondly, theory is contextualised through a fair test of basic arguments which underlie a theory. This test was done in Chapter Four Data Analysis where the nomological validity of these two theories is established. Furthermore, contingencies that influence relationships within a given context, such as gender, ethnicity and current exporting status are recognised.

Thirdly, theory is contextualised through giving back to theory. Section 5.4.1 discussed how the results alter the assumptions and predications of theory. In summary, by understanding the nature, richness and dynamics of research contexts, an effective theory building offers fresh insights into things academic community knows and those things academic community should know.

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## **List of Publications and Papers Presented**

### **Journal articles**

Kim Hoe Looi (2013) Entrepreneurial values and export intentions: A theoretical framework, *International Journal of Entrepreneurship and Small Business* (Indexed in SCOPUS), 20(3), 363 - 381.

Kim Hoe Looi and Yusniza Kamarulzaman (2015) Convergence in the Priority of Entrepreneurial Values: Empirical Evidence From Malaysia, *Journal of International Entrepreneurship* (Indexed in SCOPUS), 13 (1), 67 88. DOI: 10.1007/s10843-014-0136-2

### **Peer Reviewed Conference Papers**

Kim Hoe Looi, Yusniza Kamarulzaman (2011) “A Conceptual Framework of the Relationship Between Values and Small and Medium Entrepreneurs’ Export Intentions” in proceedings of 6th European Conference in Innovation and Entrepreneurship, 15th to 16th September, Aberdeen, Scotland. (Indexed in ISI Proceedings)

Kim Hoe Looi, Catheryn Khoo-Lattimore, Abou Bakar (2012) “Values Priorities of Malaysian Small and Medium-sized Entrepreneurs: An Empirical Study” in proceedings of Australian and New Zealand Marketing Academy 2012 Conference, 3rd to 5th December, Adelaide, Australia.

Kim Hoe Looi (2013) “Integrating Entrepreneurial Values and Theory of Planned Behavior” in proceedings of The 16th McGill International Entrepreneurship Conference, 3rd to 4th August, Montreal, Canada. (Fellowship)

Kim Hoe Looi (2013) Doctoral Colloquium in conjunction with Australia New Zealand Marketing Academy Conference. Auckland University of Technology, Auckland, New Zealand, 30th November.

Kim Hoe Looi (2014) “What motivates small and medium-sized entrepreneurs to export? A comparison between Malays and Chinese” in proceedings of Australian Academy of Business and Social Sciences Conference, 25th - 26th August, Kuala Lumpur, Malaysia.

Kim Hoe Looi (2015) Doctoral Consortium in conjunction with Australian Center for Entrepreneurship Research Exchange Conference. Queensland University of Technology, Adelaide, Australia, 3<sup>rd</sup> – 6th February.

### **Book Chapter**

Kim Hoe Looi and Kamarulzaman, Y. (2013) “Export Intention Among Small and Medium Enterprises in Malaysia: The Role of Values”, Scarborough, N. M., Idris, A., Che Ha, N., Saad, M. N. (Ed.), Entrepreneurship and SME Development, Pearson Malaysia Sdn. Bhd., Kuala Lumpur, pp. 227 - 237.