EXPORT MODE PORTFOLIO- TRANSACTION COST ECONOMICS AND REAL OPTIONS PERSPECTIVES

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ABSTRACT

Exporting plays an imperative role in many firms' growth and survival. For that reason, a profound understanding of export operations is of interest to researchers as well as practitioners. Choosing the export mode is one of the most important strategic decisions a firm makes when exporting to its foreign markets. This decision may affect the firm's resource allocations and shape the possibility of future foreign expansion, and thus has potential performance implications.

This study acknowledges that export mode choices should contribute to the firm success initially and on a continuous basis. Hence, it recognises the interlinked nature of export mode operations, and, for the first time, adapts a holistic view on export operation modes. Introducing the portfolio logic, this study investigates antecedents of the export mode portfolio and its performance implications. Two different theoretical approaches of transaction cost economics (TCE) and real options (RO) were used to distinguish different possible export mode portfolios of a firm. The study model is empirically tested using data from 250 Chinese export firms.

From the TCE perspective, the finding suggests that firms' levels of investment uncertainty and export marketing capability are the main drivers of an internalised export mode portfolio. From the RO theory viewpoint, on the other hand, the result indicates that firms' levels of endogenous uncertainties (i.e. cultural uncertainty and technological uncertainty) are positively related to the intensity of use of Joint-Investment export modes in the portfolio of firms. In addition, as expected, the greater the preponderance of exogenous uncertainties (i.e. investment uncertainty and demand uncertainty) the higher the proportion of No-Investment export modes in the portfolio of the firm.

Further analysis of firms' export performance reveals that firms shaping their export mode portfolios according to the predictions of real options out-perform firms that shape their export mode portfolio based on TCE considerations. More specifically, firms that reduce their endogenous uncertainty, by engaging more in Joint-Investment modes of export operation across their portfolio, benefit from higher profit performance. The new model developed in this study provides a tool that enables scholars to give better advice to exporters on how they can structure their export mode portfolio for enhanced export profit.

Key words: Export Mode Portfolio, Transaction Cost Economics, Real Options Theory, Uncertainty, Export Performance

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Chapter 1: Introduction

1.1 Introduction to research background

In line with the growing trend towards internationalisation, exporting is seen as a viable foreign market entry mode, and is by far the most frequent strategic option for manufacturing companies seeking growth via internationalisation and selling abroad (e.g. Khemakhem, 2010; Leonidou & Katsikeas, 2010; Li, He, & Sousa, 2016; Sousa, Martínez-López, & Coelho, 2008). According to the World Bank (2016), exports accounted for 29.53% of world gross domestic product (GDP) in 2015.

Importantly, the international business literature tends to treat exporting as a single (unidimensional) operation mode choice that is a firm-level activity, differentiating the business from others that may engage in foreign direct investment (FDI), or joint ventures (JVs). However, the export literature has a more nuanced stance, and recognises that there are many different operation mode options that exporting firms can choose between. For instance, an exporter can export via distributors, or can employ sales agents to represent the firm in its foreign markets. The firm could use its own employees to sell directly in its export destination countries, either basing these employees in the domestic market or by being present in the foreign market more directly (e.g. setting up showrooms, sales offices, etc.), and employing and training local sales representatives. Moreover, the firm could go into the JV with foreign partners, and export using the JV's resources.

Of course, some exporters may choose to use several of these export operation modes, not confining themselves to using just one approach. For instance, a firm may employ agents in the same export markets, but might export using its own in-house sales representatives in the rest of its operations.

Choosing the right mode of export is a strategic decision and one that has potential performance implications, since it may affect the firm's resource allocations and shape the possibility of future foreign expansion (Aulakh & Kotabe, 1997; Campa & Guillén, 1999; Khemakhem, 2010).

Taking into account the entirety of a firm's export markets, it is notable that each export firm consists of different ventures (export product-markets), each representing a different degree of resource commitment to an overseas market. Unsurprisingly, each firm has a unique combination of its export venture modes, which, in fact, shapes its export mode portfolio.

Entering different export markets via different modes can certainly take in different levels of the firm's resources and, sometimes, one market mode can consume more resources at the expense of others. Overall, however, the export mode portfolio of a firm reflects the entry mode strategy of that firm, and demonstrates the holistic pattern of export entry[1] mode decisions a firm makes in its markets. As highlighted by Sousa et al. (2008), therefore, a firm's export modes are joined-up and interdependent activities that together contribute to the export performance of the company. This means that it makes sense to attempt to evaluate the export performance at a continuous and joined-up level across all of a firm's export ventures.

Despite the above reasoning, to the best of the author's knowledge, there is to date no study on how the shape of the export mode portfolio of the firm might be linked to different degrees of firm performance. Indeed, as stressed by Axinn and Matthyssens (2002, p.444), portfolio logic "in which investments and disinvestments in different countries [markets] are evaluated with their interdependencies in mind" is clearly absent in the entry mode literature. In the light of this gap in the research, there is accordingly also a dearth of research on what brings the firm to have a certain strategy towards shaping their portfolio of export modes.

[1] It is notable that throughout this study, the term "export entry mode" is used synonymously with the terms "export mode", "export mode choice" and "export mode of operation". In fact, the term "export entry mode" refers to the mode by which a firm engages with an export venture market. That is, it refers to the channel choices the firm makes, and the kinds of interactions that the firm has with key players in the export channel. Therefore, the term "export entry mode" does not exclusively refer to the initial mode of export market entry that the firm used when entering the export market. Rather, it refers to the ongoing mode of operation, unless there is explicit reference to the initial model by which the market was entered. Accordingly, the current study's focus is on the ongoing entry activities of exporters.

Looking at the export entry mode literature, it important to note that most studies tend to adopt the export venture as the unit of analysis (Aulakh & Kotabe, 1997). Export literature primarily focuses on antecedents to the mode choice of a new venture, investigating what makes a firm choose a certain export mode in that venture (e.g. examining the firm's choice of the use of sales representatives in the venture) when entering a new market. Researchers mostly relied on transaction cost theory to explain the mode choice phenomena; however, the empirical result is somewhat fragmented and inconsistent (Li et al., 2017). In addition, despite the emphasis on the importance of choosing the right mode of market entry, only a limited number of scholars empirically investigated the performance implications of the mode choice (e.g. Aulakh & Kotabe, 1997; Fernández-Olmos & Díez-Vial, 2015; He, Brouthers, & Filatotchev, 2013).

In fact, there are few theoretical models (even at the venture level) developed specifically for exporters to guide them in their entry mode decisions and likewise a dearth of empirical work on this front, let alone the absence of research at the firm portfolio level. What is clear within the export entry mode literature is that the current studies are conducted at the micro level (i.e. venture level), and not at the macro level (i.e. export firm level), in which they address more tactical entry mode decisions than strategic ones. Accordingly, lack of research attention to the strategic level of export entry mode decisions means that the exporting literature suffers on two main fronts: (a) the export performance-related outcomes of export mode portfolio remain unexplored; (b) conditions that would favor shaping export mode portfolio in a certain way need to be studied.

The following section provides a detailed discussion on these research gaps that lead to the prime focus of the current study.

1.2 Research gaps elucidated

1.2.1 Performance outcomes of different export mode portfolios

Previous research points out that entry modes, once established, are difficult (costly) to change, suggesting long-term consequences for the firm (Anderson & Coughlan, 1987; Pedersen, Petersen, & Benito, 2002). Existing studies, however, have focused

on single venture for their export performance analysis and developed models that only yield information about the performance consequences of choosing a single mode of entry to a single market.

In the light of that, some export studies link a certain type of entry mode (e.g., export distributors) to a higher level of performance. As such, some researchers maintain that choosing internalised and high commitment export modes (e.g. establishing a sale subsidiary in a foreign market) could lead to higher performance. For instance, in their studies, Cavusgil and Zou (1994) clearly illustrate that a positive relationship exists between high commitment export entry and export performance (Pauwels & Matthyssens, 1999). The reasoning is that, on the one hand, sharing marketing responsibilities with overseas partners (e.g. by using collaborative entry modes as opposed to more internal entry modes) requires that profits be shared, thus limiting the profit that the focal exporter can receive. On the other hand, because of the separate ownership and profit claims of the manufacturer and independent distributor, externalising export marketing activities to an independent distributor, often leads to arms-length trading arrangements. These in turn can lead to operational inefficiencies, slow information flows, and poorly coordinated business functions. As a result, relationships with foreign distributors and partners are hard to coordinate and high performance is difficult to achieve.

Having said that, there are other research studies that find little or no impact of mode choice on export performance (Aulakh & Kotabe, 1997; Merino & Salas, 2002). However, Aulakh and Kotabe (1997) are able to identify a contingent impact of entry mode choice on export performance. Specifically, they calculate a fit score for the firms in their sample, where fit is assessed in terms of whether the firms use an export entry mode that fits the antecedent conditions facing the business in a specific export venture, where the antecedent conditions are theoretically derived. Firms with greater fit are those that choose an entry mode that is ‘best’ for the conditions they are operating in and the findings indicate that export venture fit predicts greater export success.

Accordingly, there is some limited evidence to suggest that although there is no one best export entry mode choice, getting entry mode choice ‘right’, depending on the conditions facing the firm, might help drive export success.

Entry mode research has advanced over the past few decades (Li et al., 2017). However, as highlighted above, the empirical evidence on the relationship between export market mode and performance is somewhat limited, ambiguous, and fragmented (Sousa et al., 2008). More importantly, the main concern is that these studies were all conducted at the venture level, so that the findings are not necessarily generalizable to the firm level success.

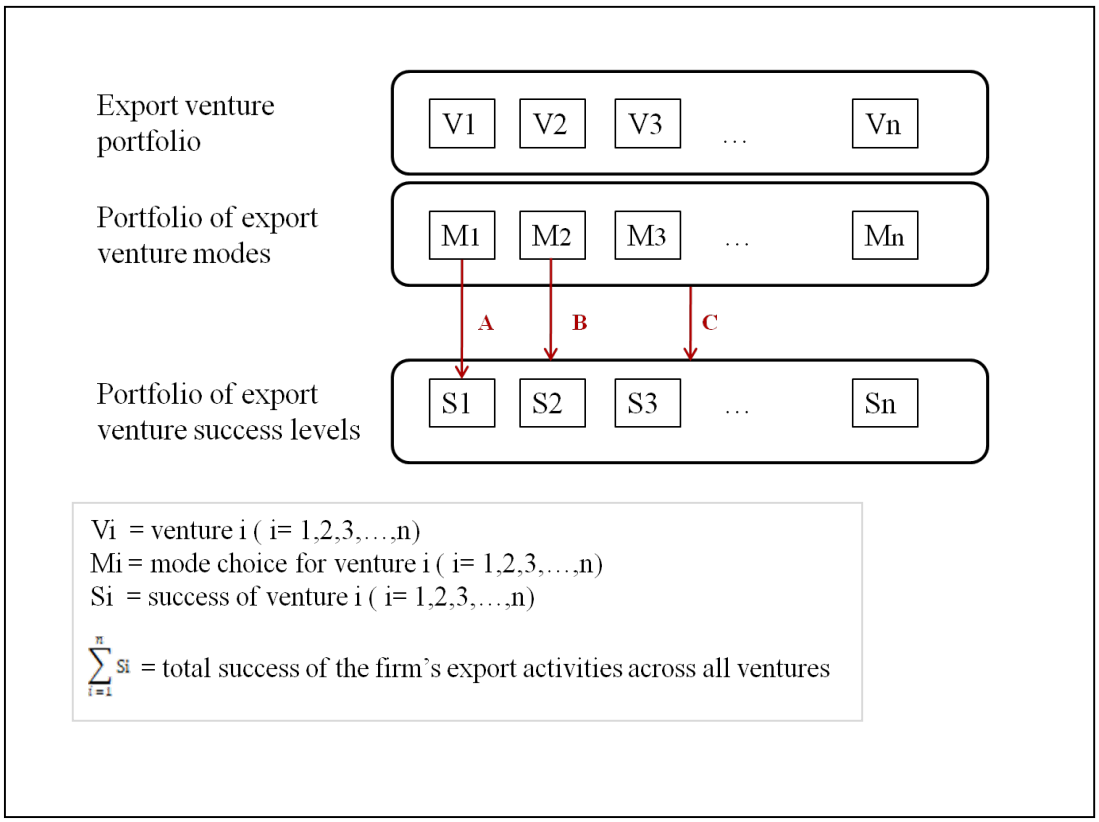
To make this matter clearer, an imaginary firm is illustrated in Figure 1.1. In this example, the export mode portfolio of the firm consists of its different ventures (V1 to Vn) represented by M1 to Mn. The success of each venture is considered to collectively contribute to the success of the export firm, and presented by S1 to Sn, subsequently. In this example, a venture level analysis is presented by arrow (A). As it stands, the arrow (A) links the export mode chosen for one venture (i.e. M1) to the same venture success outcomes (i.e. S1). Accordingly, one could clearly say the success or failure of this venture neither reflects nor guarantees the success or failure of the export firm. In other words, the success of the venture could only contribute to the success of the firm, but not be generalised to that. As a result, the venture level analysis provides little evidence to help inform the scholarly community on the impact that export market mode might have on firm level success.

Another concern with these venture level analyses is their validity. It is argued that even if the findings present internal validity for the questioned venture, the result could be questionable. As mentioned earlier, interdependencies exist between export ventures and nature of exporting activities are joined up (shared production facilities and cost, for instance). Therefore, the cost of entering a new venture might not be fully considered when reporting venture performance. In other words, there are costs other than the direct cost of setting up a venture across the firm that make the venture level results invalid. The fact is that enhanced venture performance will come at a cost and these costs will often be partly or wholly incurred outside of the venture (at the broader export function), so success at the individual export venture level may come at a price at the functional level that outweighs the benefits attained at just one single venture. However, since only a single venture is the focus of the analysis, no information is provided about its broader context, and that could make the findings invalid.

Furthermore, on a methodological front, empirical studies that analyse export venture modes have not always measured mode choice and performance at the same level, thereby increasing the possibility of drawing invalid conclusions about the role of specific entry mode in driving firm outcomes (Sousa et al., 2008). This relationship is shown by arrow (B) in Figure 1.1.

In this figure, arrow (B) indicates that activity at the single venture level of analysis is often used to predict the success of the entire portfolio of the firm's export ventures. Using activity at the level of a single venture to predict firm level success is dangerous and may lead to erroneous conclusions. For instance, the firm may have heterogeneous activities across its export ventures, and so using only information from a single venture ignores potentially important information about activities in other ventures, as well as ignoring interdependencies and trade-offs between ventures.

Figure 1.1 Level of analysis in export success studies



Revealing the shortcomings of the venture level studies, a fundamental research gap in the extant literature becomes obvious. As illustrated in Figure 1.1, arrow (C) reflects a strategic, and macro level of analysis that considers the export mode decisions at an aggregate level (export mode portfolio) as a cause of success of the export firm's activities across all ventures. Addressing this research gap has been one of the primary drivers in conducting the current research study.

In this section, the need to address how different export mode portfolio could outline different export performance was justified. Now, the next potential questions would be what the possible shapes of the export mode portfolio are, and what makes firms shape their portfolio in a certain structure. These questions lead to the next research gap of the study. It is worth mentioning that to study the issue this study acknowledges the work that has been done in the export venture level literature as well as the broader international strategic marketing domains.

1.2.2 Drivers of different export mode portfolios

The mainstream research on export entry modes primarily focuses on the determinants of the decision to use a particular kind of mode, such as the factors that influence a firm to choose to use in-house export sales representatives. Although no complete listing of mode structures is available, the literature review reveals quite a number of different modes an exporter can choose to structure their export market in a foreign country. The most commonly explored mode choice is that between integrated (proprietary) and non-integrated (independent) export modes (e.g. Anderson & Coughlan, 1987; Aulakh & Kotabe, 1997; Khemakhem, 2010; Kim, Kim, & Lee, 2002; Rialp, Axinn, & Thach, 2002; Shervani, Frazier, & Challagalla, 2007). Other researchers investigated the choice between direct and indirect export mode choices (e.g. Fernández-Olmos & Díez-Vial, 2015; Fernández-Olmos & Díez-Vial, 2014; Hessels & Terjesen, 2010; Trabold, 2002). Some scholars have looked into the determinants of the choice between the export modes within the same category. For instance, Bello and Lohtia (1995) explored non-integrated export channel modes and examined determinants of choosing agent vs. distributor. Klein et al. (1990) and Manolis et al. (1997) studied determinants of the level of control in export channel choices. Nevertheless, despite this widespread research on export

entry modes, there is no evidence of research examining determinants of the export mode portfolios, or the strategic patterns of mode choice for the export firm.

Moreover, studies conducted at the venture level notably lack a clear-cut definition of export entry mode. There is no consensus in the field on how to categorise export entry modes. For example, it seems different scholars use different criteria to distinguish direct vs. indirect export entry modes (Khemakhem, 2010). Therefore, it is crucial to identify different types of entry modes before embarking on the study of the possible outcomes of, and causes of, different shapes of mode portfolio.

In terms of identifying determinants of mode choices, scholars have mostly relied on Transaction Cost Economics (TCE). In fact, to date, the TCE framework has been used almost exclusively to guide research on the entry mode in the international business and export marketing literature (Aulakh & Kotabe, 1997). Assuming that there are threats of opportunism when working with partners and third parties, TCE suggests that higher control mode options (e.g. through ownership and internalisation when entering a new foreign market) are best since they can mitigate opportunism (Cadeaux & Ng, 2012). While focused primarily on internalisation, and commitment as a way of minimising costs (i.e. threat of opportunism or being held hostage by a partner firm), TCE has failed to explore the effect of different aspects of uncertainty, and value creation as opposed to cost minimisation in entry decisions. The TCE approach lacks attention to opportunity cost (Brouthers, Brouthers, & Werner, 2008) and the dynamics associated with learning and knowledge development resulting from different types of entry mode (e.g. agents, and export joint ventures). Based on this criticism, the international business and strategy literatures are now paying greater attention to real options (RO) theory which is shown to provide success in managing (as opposed to only minimising) uncertainty in decision-making processes.

The main assumption of RO is that ‘firm-specific’ investments are not reversible, which implies the downside risk potential of investments may be greater than traditional TCE assumes (Brouthers et al., 2008). Hence, Ro recognises that in facing uncertainty, integration might not always be an efficient solution for limiting environmental uncertainties. The RO perspective suggests that entry decisions are a dynamic rather than a static process and mode choices should correspond to the

magnitude and type of uncertainty the firm faces, and be adjustable (flexible for further change) as the state of uncertainties changes (Li, 2007; Tong & Reuer, 2007). In fact, RO logic enables the firm to be responsive to the changing status of uncertainties and to avoid being caught in a high commitment entry mode from the beginning (Pauwels & Matthyssens, 1999, p.15).However, it seems that export specific literature lags behind the international business literature in using real options lens.

In light of the above, the second major research gap identified is that concerning the lack of theoretically rich models to explain the determinants of the different export mode portfolios.

1.3 Research objectives

Having identified the research gaps, the current study aims to develop a firm level model that provides theoretical and empirical insight into how and when different export mode profiles may be preferable in terms of driving export performance. Specifically, this study has two main research objectives:

1. Investigating antecedents of the export mode portfolio
2. Investigating the relationship between the shape of export mode portfolio and export performance

In order to execute the research objectives, first, the notion of export mode portfolio was conceptualised at the firm level. Export mode portfolio is viewed as the aggregate of each individual venture's export market entries. That is, the study looks at the entire set of the firm's export entries to determine the possible export mode portfolio shapes.

Through the lens of well-established TCE theory, possible export mode portfolios are identified and the determinants of export mode portfolio are subsequently introduced. In addition, by introducing the new theory of RO, different possible shapes of export mode portfolios and their determinants are identified, accordingly.

Developing a model of potential performance outcomes, it is expected that firms shaping their export mode portfolios according to predictions of real options over-perform firms shaping their export mode portfolios based on the TCE considerations.

1.4 Contributions of this research

By addressing the identified gaps, this research makes a number of theoretical and practical contributions in the field of export marketing and international business.

1.4.1 Contribution to theory

1. 4.1.1 Contribution to the export mode operation and export performance literature

The current research contributes to marketing and international business literature on mode operations by combining and comparing the traditional TCE framework with (new to the field) RO theory to present a new theoretical TCE-RO model for predicting the optimum export mode portfolio. To the best of the author's knowledge, this is the first research that empirically analyses both theories on export mode decisions. The result of the research is expected to provide deeper insights into the export mode portfolio, its determinants, and its performance implications which could be extended to broader market entry mode decisions in the international marketing context. Accordingly, addressing the research gaps, this study seeks to contribute to the literature as follows:

Introducing export mode portfolio logic

By highlighting the requirement of investigating export mode activities at an aggregated firm level instead of a venture level, this study is the first to look at the export mode portfolio. Even though the concepts of export mode choice, export channel selection and export entry mode are relatively established in the marketing and export literature, portfolio logic is absent from empirical research. Thus, from a theoretical standpoint, this study provides new insight into the nature of export mode decisions at the aggregated firm level. Although this study acknowledges different types of established export modes in the export literature, it emphasises the importance of considering the export mode portfolio (instead of single export mode)

as a unit of analysis. The reasoning is that, firstly, in practice export activities could be interlinked. For instance, a firm may employ agents in some export markets, but might export using its own domestic sales representatives in the rest of its operations. In fact, the firm may use the same resources for several of its markets. Secondly, exporters might choose to use several of these modes for the same market and might not limit their activities to a single mode. Therefore, each firm has a unique combination of these modes that accordingly shapes its export mode portfolio.

Two different theoretical approaches are used to distinguish possible different export mode portfolios of a firm. In fact, implementing different logics (TCE or RO) and under different conditions, certain mode portfolios are expected to be more effective and efficient than others.

It is notable that the current study delivers valuable understandings of the nature of export mode portfolio, and takes the first step in introducing the portfolio logic, its importance, definition, and conceptualisation, which could have performance implications and be determined by different theoretically-embedded variables.

Revisiting antecedents of export mode portfolio

With respect to antecedents of the export mode portfolio, this study utilises the two theories of TCE and RO to discover the condition in which different portfolios are structured.

TCE-based antecedents: First, this study uses the well-established TCE theory and its core variable to examine the effect of core independent variables of the TCE on export mode portfolio of the firm. For this reason, first, the common antecedents of export mode in the export literature (behavioural uncertainty and asset specificity (in terms of R&D expenditure) are used. In addition, moving from the most common aspect of asset specificity in the relevant literature (i.e. R&D expenditure), this study argues that marketing skills and capabilities developed to sell the products are key specific assets for export firms, thus a new aspect of asset specificity is introduced, measured, and examined to predict export mode portfolio.

Moreover, in the export specific literature, studies embedded in the TCE framework investigated the relationship between different types of external environmental uncertainties and export mode decisions. This study uses an umbrella term of investment uncertainty to consider the external uncertainties a firm might face in its export operations. Thus, investment uncertainty is introduced, measured, and examined to predict export mode portfolio of the firm.

Accordingly, this study contributes to the export literature by examining the power of TCE variables in predicting export mode portfolio of the firm. In addition, it introduces a new aspect to the core variables of the theory, develops the measurement tool for them, and opens a new avenue for further research in the export context, and the broader international business field.

RO-based antecedents: What makes the application of real options theory appealing in the current study is its core variables: uncertainty including both exogenous and endogenous, and investment irreversibility. This theory appreciates the irreversibility of investments, and handles uncertainties in a different approach from TCE. Therefore, by introducing this theory to the current mainstream export mode literature, this study adds knowledge to the export mode decisions under different conditions of uncertainty, and export mode investments.

Core main effect variables in this model are different types of exogenous uncertainty (investment and demand uncertainty) and endogenous uncertainty (cultural and technological uncertainty), as well as investment irreversibility. Given the lack of a clear-cut definition and measurement instrument for different types of uncertainty in this model, new measures are created to be conceptually fit for the construct of interest, and the context of the study.

Real options theory is new to the field and its empirical studies are limited. Thus, the conceptualisation of the antecedent variables and developing measurements tools not only contribute to the export mode literature but also provide opportunities for further empirical research in the broader international business context.

Advancing export performance literature

Recognising how export mode portfolio could affect export success, this study identifies export mode portfolio as a new export performance antecedent, so that it adds to the export performance literature directly. While the existing research studies have a tactical approach towards the performance outcomes of export entry mode (single mode study), this study introduces a holistic strategic view into the nature of the relationship. In addition, it is expected that firms that structure their mode portfolios according to the TCE logic face different outcomes in terms of firm profitability from firms that align their mode portfolios according to RO theory.

1.4.2 Contribution to practice

This study is able to make recommendations to managers and policy makers to benefit from a successful export firm. It focuses on aggregated export mode operations of the firm rather than single venture mode, thus offering more potential to help managers to boost the overall export performance of their firms. In fact, by introducing portfolio logic in mode operations and by identifying what a 'good' portfolio may look like, managers can arrange their export mode portfolio strategically to achieve export success.

In the real business world, uncertainty is an inevitable part of any strategic decision (Johnson, Scholes, & Whittington, 2008). Introducing a dynamic approach to uncertainty management (RO) rather than a static one to uncertainty reduction (TCE) could give decision makers strategic flexibility in adjusting their mode operations and resource allocations in their foreign markets. As argued by Pauwels and Matthyssens (1999, p.14), "permanent market dynamics [and uncertainties] creates a change in the key success factors. Therefore, strategies regularly should be challenged and adjusted, or even adapted, to retain an optimal fit".

This study rationalises the need for introducing a new decision-making framework to look at export mode operations strategies. Therefore, it offers a prescription for export managers which acknowledges dynamic decision-making in response to business uncertainties and optimises a firm's portfolio of markets. Within this context, a new set of factors determining the decision to shape the export mode

portfolio are identified and introduced. It argues that the real options framework enables managers to value flexibility in their investment and consider some scope for them to react to new information, and adjust their investment (e.g. to expand, or withdraw). Thus, such flexibility could contribute to the success of the export firm.

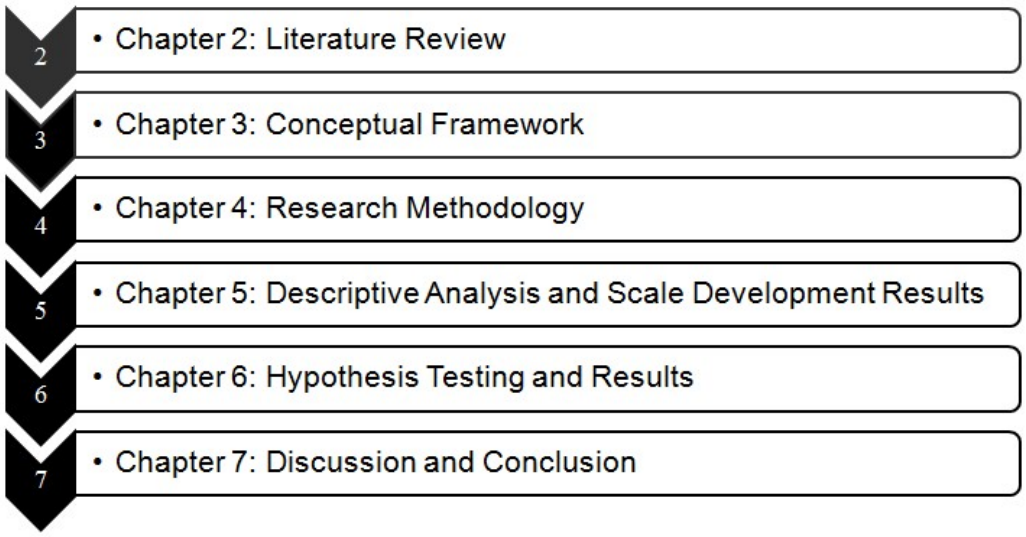
Since the data is collected from a sample of Chinese manufacturer exporters, this study will be of value specifically to Chinese export managers arranging their export mode portfolio by exporting to different markets. Considering China as the largest manufacturing economy and the largest exporter in the world, the findings of this study could enable Chinese's export managers to take into account the dynamic nature of uncertainties they face in their export markets, and to allow for different types of uncertainty in their long-term strategic decision-making. In fact, being aware of the real option decision-making framework influences patterns of managerial cognition with respect to mode decisions. It helps managers to create flexible platforms to reverse managerial choices to avoid unfavourable outcomes.

Having an economy heavily reliant on export, Chinese policy makers might use the insights from this study as tools to provide specialist programmes for Chinese entrepreneurs, and help businesses export and grow into global markets. The lessons learned in this study might also be directly applicable to exporters located in other transition economies.

1.5 Thesis structure

As illustrated in Figure 1.2, this thesis is structured in seven chapters including the current chapter.

Figure 1.2 Thesis structure overview



Chapter two provides a review of the relevant literature in marketing, international business and strategy. It presents an in-depth conceptualisation and operationalisation of the export mode choice. Building on the venture level (one market, one product) export entry literature, a firm level (multi-venture) export entry portfolio is contextualised and discussed. The role of TCE theory in developing the export mode alternatives is explained. Furthermore, this review outlines the underpinning theories in explaining the drivers of the export mode choice mainly from TCE and other utilised theoretical perspectives in exporting literature. Then, borrowing from the broader international business literature, the relevance of the new approach of RO to this study is contextualised and justified. The performance implication of the mode choice and the performance dimension that has been used is explained.

Following the literature review, and to satisfy research objectives, *chapter three* presents the conceptual development of the hypotheses. Building on the TCE and RO approaches highlighted above, and the different way that each theory handles drivers of mode choice, a conceptual framework that manifests the competing

perspectives of both theories is developed. It is proposed that firms may gain performance advantage by following the export mode portfolio predicted by this model.

Chapter four discusses the study research methodology. This chapter specifies the main research design issues. Accordingly, information on the use of cross-sectional design and the employed survey administration methods are provided. This chapter continues by elaborating on different aspects of survey design, sampling procedure and survey administration. Finally, the measure development strategy and analytical procedure used in establishing dimensionality, reliability, and validity of the measures developed for this study is outlined.

Chapter five outlines the initial stage of the data analysis. First, using descriptive statistics, both participant firms' and respondents' profiles were analysed. Subsequently, the result of measurement development is presented. Providing valid and reliable scales, the presence of the potential CMV bias was examined. This chapter concludes with the descriptive analysis of the final constructs to be used in the model testing.

The purpose of *chapter six* is to test the hypotheses developed in chapter three and present the results and findings. Accordingly, the use of multiple regression analysis to test the hypotheses of this study will be discussed. The chapter continues with a discussion of the analysis strategy chosen for this study. The result of regression analysis is presented subsequently.

The final chapter, *chapter seven*, outlines the discussion and conclusions drawn from the study. It also offers a summary of the research, theoretical and managerial implications of the findings, limitations and future directions of research.

Chapter 2: Literature Review

2.1 Introduction

This chapter seeks to review the main body of the entry mode literature to serve as a basis for the conceptual development of the study. Focusing primarily on export specific scholarly works, this study incorporates the broader international marketing and strategic management literature on entry modes. Clarifying the notion of entry mode, and building on two theories of transaction cost economics (TCE) and real options (RO), determinants and performance consequences of different entry mode selection are identified. In this setting, the structure of the chapter is as follows.

First, amongst other factors mentioned in the extant literature, the importance of export entry modes as a strategic determinant of the export firm success is highlighted. In addition, the necessity of establishing studies at the export firm level (rather than venture level) is highlighted in this section.

Second, export entry mode's definition, types, and categories are further discussed to provide a comprehensive view on the notion of export entry mode. Subsequently, motives behind entry mode selection lead the literature review to explore entry mode determinants. Variables included in this discussion are embedded in two theories of TCE and RO. While specific export literature is reviewed to explicate the TCE perspective, real options theory literature review is dominated in international marketing and strategy literature, where it originated.

In the final section, the relationship between entry mode choice and performance is reviewed. Lastly, a summary is provided.

2.2 Export and export performance

Exporting plays an important role in firms' growth and survival (Chen et al., 2016). It ranks among the highest priorities of any government wishing to stimulate economic growth (Belloc & Di Maio, 2011). As such, a deep understanding of exporting and

export success determinants have been a growing interest not only to managers and policymakers but also to marketing researchers (Leonidou, Katsikeas, Palihawadana, & Spyropoulou, 2007).

Export performance that is an outcome of firm activities in its export market (Katsikeas, Leonidou, & Morgan, 2000; Shoham, 1998) has been much studied over the last five decades (Chen et al., 2016). It is the most researched topic in the export context and became increasing hot over time. This is attributable to the fact that "export performance is the end result of the firm's marketing efforts and other business activities in foreign markets, providing an indication of its overall success or failure and determining further continuation of or withdrawal from exporting" (Leonidou & Katsikeas, 2010, p. 884). Thus, the extant literature has consistently stressed the importance of export success and proposed alternative drivers of export performance.

To this end, several scholars reviewed the literature of export behaviour and success (e.g. Aaby & Slater, 1989; Bilkey, 1978; Chen et al., 2016; Sousa et al., 2008; Zou, Taylor, & Osland, 1998). However, researchers are still uncovering different determinants of export success. In the two latest systematic reviews on export performance determinants, Sousa et al. (2008) and Chen et al. (2016) covered publications on export performance from 1998 to 2005, and from 2006 to 2014, respectively. Examining 176 papers in total, both papers classified drivers of export success into internal and external variables. Internal factors include export marketing strategy, firm characteristics/capabilities, and management characteristics. External factors, on the other hand, are industry level, and country-level characteristics consisting of environmental factors. As illustrated in Table 2.1, export marketing strategies and firm's resources/capabilities represent the most frequent determinants of export performance in the reviewed literature.

Table 2.1 Determinants of export performance (adapted from Sousa et al., 2008 and Chen et al., 2016)

Determinants of export performance	Including but not limited to	Total frequency of use, from 1998 to 2005	Total frequency of use, from 2006 to 2014
Export marketing strategy	Product strategy; Price strategy; Promotion strategy; Distribution strategy; Proactiveness/reactiveness; Market research; Market expansion; Service strategy; General export strategy; Innovation; Risk taking; Export planning; Distribution channel relationship; Control; Process; Co-operative strategy; Strategic fit	84	76
Firm characteristics and capabilities	Firm size; International experience; Market orientation; Firm capabilities/competencies; Degree of internationalisation; Firm age; Industrial sector/product type; Organisational culture; Ownership structure; Production management; Connectedness; Conflict; Firm performance;	72	21
Management characteristics	Export commitment and support;	17	65

Determinants of export performance	Including but not limited to	Total frequency of use, from 1998 to 2005	Total frequency of use, from 2006 to 2014
	Education; International experience; Age; Innovative;		
Foreign market characteristics	Legal and political; Environmental turbulence; Cultural similarity; Market competitiveness; Environmental hostility; Economic similarity; Channel accessibility; Customer exposure;	23	10
Domestic market characteristics	Export assistance; Environmental hostility;	6	9
Industry-level characteristics	Technological turbulence; high-tech industry; industry adaptation; industry technological intensity; technology assistance; industry export orientation	-	18
Total papers reviewed		52 paper reviewed	124 paper reviewed

2.2.1 Level of export performance analysis

In examining the drivers of export performance, attention to the viable level of analysis is specifically stressed (Oliveira, Cadogan, & Souchon, 2012; Sousa et al., 2008). The established units of analysis in the export literature are export firm level, and export venture level. Some researchers argue that the appropriate unit of

analysis in export performance investigations is the export venture (Cavusgil & Zou, 1994; Morgan, Kaleka, & Katsikeas, 2004; Theodosiou & Leonidou, 2003), where, export venture is defined as “a single product or product line exported to a single foreign market” (Sousa, 2004, p. 4). The rationale is that export venture level studies might have a deeper insight into key success factors of export marketing decisions (Cavusgil & Kirpalani, 1993; Cavusgil & Zou, 1994; Sousa, 2004).

An alternative level to analyse export performance is the export firm level. Export firm level studies focus on the overall export performance achieved by the exporting entity (e.g. Brouthers & Xu, 2002; Cadogan, Kuivalainen, & Sundqvist, 2009; Ito & Pucik, 1993; Oliveira et al., 2012). As reported in Sousa et al. (2008)’s review, 75 per cent of the studies are conducted at the firm level, this figure is equal to 55 percent in the recent review paper by Chen et al. (2016). There are different justifications to account for the tendency of the researchers to study export performance in the firm level (Sousa et al., 2008). First is the fact that export managers are more willing to disclose information at this broad level (Matthyssens & Pauwels, 1996). This is because some firms organise their export operations as continuous and joined up activities. For these firms, “the idea of export venture performance is an alien concept, as they evaluate export success on the basis of broad metrics” (Sousa et al., 2008, p. 350). For them, reflecting on a single venture could be impossible, difficult or inaccurate, thus, venture would not be a viable unit of analysis (Chen et al., 2016).

Second, scholars should not ignore the fact that the ultimate aim is to enhance the overall export performance of the company, thus, they are encouraged to focus on theories that have potential value for managerial practice, and which help them to boost the overall export performance of the companies. Oliviera et al. (2012, p.122) argue that export firm theory has strong potential to aid in this respect: “factors that are shown to determine the overall performance of the export function can be flagged by researchers as potential factors to add to managers’ dashboard of malleable controls that enhance export outcomes”. On the other hand, findings from a venture performance study potentially lack strong and valid recommendations for managerial practice. The reason is that ventures are nested within the firm and their success or failure may not necessarily reflect the success or failure of the firm. In

other words, unless they are validated at the firm level, findings from single venture performance studies could not be generalised to the firm level, or provide valid managerial recommendations (Oliveira et al., 2012).

Third, the validity and sufficiency of venture level studies could be questionable. Scholars must consider that enhanced venture performance will come at a cost that might be incurred partly or wholly outside the venture (e.g. in the export function). When the focus of study is an individual venture, no broader information is provided about the broader cost unit at the function level that could make the venture-level findings invalid for the firm level (Oliveira et al., 2012). Moreover, firms usually deal with a strategic choice as to the allocation of resources between their export markets (Leonidou & Katsikeas, 1996). Thus, to ensure optimum overall performance across all the firm ventures, studying a single venture might not be sufficient in itself (Leonidou & Katsikeas, 1996).

The final underlying justification for conducting a performance study at the firm level is highlighted by Sousa et al. (2008). They maintain that firm-specific advantages contributing to the enhance performance of the firm are derived not only from the development and marketing of a particular product in a particular market but also from the total learning process of the firm operating across all its markets. Therefore, it makes sense to choose a firm as an appropriate level of study, so that the performance and its drivers are measured at the same level (Oliveira et al., 2012).

2.2.3 Export marketing strategy and export performance

As illustrated in Table 2.1, the export marketing strategy is one of the main determinants of export performance, so their relationship has been widely studied. Strategic marketing decisions are driven by a firm's internal resources and capabilities, its managers' characteristics, and the external environment (Chen et al., 2016; Katsikeas, Samiee, & Theodosiou, 2006). Mintzberg (1978) defines strategic decisions as those that have long-term effect and demand a considerable amount of resources. Among the many strategic decisions an exporting firm might make, decisions regarding export mode choices across the firm's portfolio of export operations might be considered key. Choosing right modes of export is a strategic

decision, and one that has potential performance implications, since it may affect the firm's resource allocations and shape the possibility of future foreign expansion (Aulakh & Kotabe, 1997; Campa & Guillén, 1999; Khemakhem, 2010).

Despite the potentially significant effect of export mode decisions on the firm's export performance, it is notable that exporting literature primarily focuses on the antecedents to export mode choice rather than its performance implications. As He et al. (2013) highlighted, research into export mode choice and its performance implications is less evident within the exporting literature. Amongst strategic marketing studies, those related to the examining of export mode decisions are distribution strategy, market expansion, and ownership structure of the export firm that accounts for 11.3 per cent of export success determinants' studies that Sousa et al. (2008) and Chen et al. (2016) reviewed. However, a closer look into these studies reveals that they do not fully and directly uncover the performance consequences of the export mode choices.

This review of the performance literature leads this study to further explore the existing studies on export mode strategies. Subsequently, a systematic review was conducted (see Table 2.2) on the relevant literature. To be included in this review, each paper must have a primary focus on export mode selection with an empirical nature.

Table 2.2 Export entry modes, export entry mode determinants, export entry mode performance implications

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
1	Andersons and Coughlan (1987)	TCE	Venture	Specific assets (+); Product age (NS); Service requirement (NS); Product differentiation (+); Legal restriction (NS); Existing channel (+); Relatedness to principal business (NS); Strength of patent (NS); Competitive behaviour (NS); Country of entry (cultural similarity) (+)		Integrated channels vs. independent channels	No
2	*Klein 1989*	TCE	Venture	Channel volume (+); Transaction frequency (+); Asset specificity (+); Complexity (+); Dynamism (-)	*(CO)* Dual channel (+); Distance (+)	Vertical control (centralisation and formalisation)	No

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
3	*Klein et al. (1990)*	TCE	Most Important Venture	Channel sale volume (+); Asset specificity (+); External uncertainty (volatility) (mix); External uncertainty (mix)	*(CO)* Dual channel (+); Distance (+)	Hierarchy (Foreign and domestic) vs. market and intermediate channels	No
4	*Klein and Roth (1990)*	TCE	Venture	Experience x Asset specificity (+) Psychic distance x Asset specificity (+)	*(MO)* Asset specificity *(CO)* Dual Channel (+)	Hierarchical channels (foreign and domestic) vs. market and intermediate channels	No
5	*Bello and Lohtia (1995)*	TCE	Venture	Specific Assets (product, human, physical) (+); Volatility (NS); Diversity (-); Export volume (+); Export intensity (+)		Non-integrated channel modes: agent vs. distributor	No

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
6	*McNaughton (1996)*	TCE	Venture (most important product-largest market combination)	Channel volume (+); Asset specificity (+); Volatility (+); Diversity (NS)	*(CO)* Product Customisation (+); Destination (NS)	Full control (Foreign and Domestic hierarchy modes) vs. Shared control (Market and Intermediate modes)	No
7	*Manolis et al. (1997)*	NA	Venture	Market Uncertainty (+), regulatory environment Uncertainty (NS), internal(behaviour) uncertainty (+)		Level of Vertical Control	No
8	*Aulakh and Kotabe (1997)*	ET	Venture	Asset specificity (mix); Country risk (-); International experience (mix); Firm size (NS); Market position strategy (NS);		Channel integration (Hierarchical channel vs. Intermediate	Yes

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
				Global integration strategy (+); Differentiation strategy (mix)		channel vs. Market channel)	
9	*Campa and Guillén (1999)*	Owner-ship and location factors	Venture	Intangible assets (+); standardized products (-); Resource availability (+); Export commitment(NS); Host country development (NS); export Market potential (+); Institutional and cognitive constraints (-)		proprietary foreign sales subsidiaries vs. shared-control institutional arrangement	No
10	*Burgel and Murray 2000*	NA	Current market entry	Firm size (+); International experience (NS); Manager's international experience (NS); Used channel (+); Product technology age (NS); Product customisation (+); Service requirement (NS)		Intermediary channel vs. Direct export channel	

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
11	*Rialp (2000)*	TCE	Venture	Channel volume (NS); Product line (NS); Production technology (mix); Specific Assets (+); Assets technological intensity (mix); Product differentiation (mix); Service requirement (mix); Firm size (+); Resource availability (+); Foreign capital (+); Export commitment (+); Cultural similarity (+); External uncertainty (NS); Foreign distribution advantages (+)		Proprietary forms and/ or commercial alliances vs. Independent channels	No
12	*Kim (2001)*	TCE	Venture	Transaction-specific assets (+); Service requirements (+); Sales value (+); Foreign market experience (NS); Outside distributor's capability to perform the distribution functions (mix); Age of product (NS)		Integrated channel vs. Non-integrated channel	No

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
13	*McNaughton and Bell (2001)*	TCE	Venture	Asset specificity (-); Volatility (NS); Diversity (+); Channel volume (-); Product customisation (NS); Destination (NS)		Market mode channel vs. Intermediate mode channel vs. Hierarchical mode channel	No
14	*Chung (2002)*	NA	Venture	Firm's Experience (NS); Product related characteristics (+); Home market position (NS); Export market potential (NS); Export market size (-); Buyers' business system (+); Industry (service vs. manufacturing) (NS)		Direct channel vs. Indirect channel	No
15	*Li and Ng (2002)*	TCE	Multiple Channel	Asset specificity (-); Volatility (-); Diversity (+); Channel volume (NS); Channel Growth (-); Product		Multiple channels (hybrid and plural) vs.	No

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
				customisation (NS); Destination (NS)		Single channel	
16	*Merino and Salas (2002)*	TCE	Single channel	R&D activities (NS); Standardised product (NS); Level of customer service (+); Service requirement (NS); Brand (NS); Physical and cultural distance (NS); Scale economies effect (+); Number of employee (NS); National ownership (+)		Proprietary export channel vs. Non-proprietary export channels	Yes
17	*Rialp et al. (2002)*	TCE	Venture	Firm size (+); Resource availability (+); Foreign investment (+); Structured planning of export activity (+); Product complexity (+); Product differentiation (+); Promotional activities (+); Level of customer service (+); Industrial Sector (+); Specific foreign market		Proprietary forms vs. Commercial alliances vs. Independent channels	No

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
				knowledge (+); External uncertainty (+); Export Volume (+); Product line (-); Perception of competitive advantage (+)			
18	*Trabold (2002)*	TCE	Venture	Market Distance (-); Product complexity (-)		Indirect channel vs. Direct channel	No
19	*Peng et al (2006)*	TCE	Venture	Market Distance (+); Product complexity (+)		Buy (indirect channel) vs. Make (direct channel)	No
20	*Shervani et al (2007)*	TCE	Venture	Internal Uncertainty (+); External Uncertainty (-); Asset specificity(+)	(MO)Market power(-)	Integrated vs. non-integrated channels	No

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
21	*Lau (2008)*	TCE	Venture	Firm size (+); Firm age (+); Product complexity (+)		Make(integrate channel) vs. Buy (Market channel)	No
22	*Hessels and Terjesen (2010)*	RD;IT	Venture	Perceived favourability of home country (mix); Perceived internationalisation of the operation field (NS)	(CO)Industry (+); Firm size (+); Firm age (-); Resource base (NS); Business owner's education (NS); TMT foreign experience (+); Foreign investors (+)	Indirect channel vs. Direct channel	No
23	*Khemakhem (2010)*	TCE	Venture	Product complexity (NS); Service requirement (-); Promotional activities (NS); Product knowledge (NS); Product adaption needs (+);		Independent channel vs. Integrated channel	No

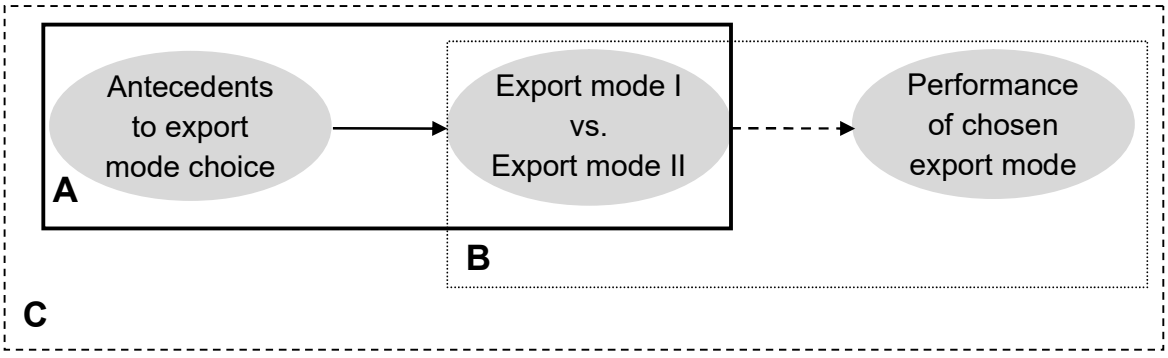
Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
				Management goal (-); Management expectation (NS); Management engagements (NS); Demand condition (NS); Competition condition (NS)			
24	*He et al. (2013)*	RBV, IT	Venture	Market orientation (+)	(MO)Institutional distance (+); (CO)Ownership (mix); Industry (mix); Firm size (NS); Export experience (NS); International experience (NS); Market experience (+); R&D (NS); Frequency (NS); Asset specificity (+); Internal	Hierarchical channel vs. Hybrid (Intermediate) channel	Yes

Item	Author	Theory[1]	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent variables studied	Are performance outcomes of export modes studied?
					uncertainty (NS); External uncertainty (NS); Market size (NS)		
25	*Fernández-Olmos and Díez-Vial (2014)*	TCA, RBV, UM	Venture	Firm size size (+); Intangible Resources (mix); Product quality (+); International experience (+)	Business group affiliation (+); Firm age (NS)	Direct channel vs. Indirect channel	No
26	*Fernández-Olmos and Díez-Vial (2015)*	RBV	Venture	R&D intensity (NS); Advertising intensity (NS); Human resources (+); International experience (NS)	(CO) Firm size (+); Information and communication technology (+); Firm age (NS)	Direct channel vs. Indirect channel	Yes

NA= No specific theory; TCE=Transaction Cost Theory; RBV= Resource Based View; IT= Institutional Theory; ET = Eclectic Theory; RCP = Relational contracting paradigm; OC = Organisational Capability; MC = Marketing Control Perspective; RD = Resource Dependency theory

All the studies demonstrated in Table 2.2 are export specific, and selected because export entry mode and export channel selection are the main issues addressed in those papers. Based on this review, and synthesizing the analysis of the extant literature and empirical work on export entry mode, it is possible to classify the literature into one of three distinct areas. As demonstrated in Figure 2.1., the mainstream research is mainly interested in understanding the drivers of entry mode choices, and so is building models that predict when firms do and should choose any mode of exporting (e.g. using independent distributors), vis-à-vis the other export mode (e.g. sales subsidiary) (box A). However, research into export mode choice and its performance implications is less evident within the exporting literature (box B). Finally, there are few studies (e.g. Aulakh & Kotabe, 1997; Fernández-Olmos & Díez-Vial, 2015; He et al., 2013) that consider both export entry choice antecedents and the performance implications of mode choice in the same study (box C). In the latter, it is the strategic fit between entry mode antecedents and chosen entry mode that determines the success of the firm (Katsikeas et al., 2006). The strategic fit is mentioned to be a key determinant of export performance that is neglected by many studies (Katsikeas et al., 2006; Morgan, Katsikeas, & Vorhies, 2012). A detailed discussion of strategic fit will be followed in a separate section in this chapter.

Figure 2.1 The state of the current research in export mode choice literature



To explore the performance implications of the export entry mode, the rest of the current chapter primarily focuses on the export entry mode, it determinants, and its performance implications. As such, first, a clear definition of export entry mode is provided, which follows in the next sections. Then, considering the two theories of

TCE and RO, main determinants of the export entry modes are illustrated. Performance consequences of entry mode choice follow subsequently.

2.3 Export entry mode revisited

Sharma and Erramilli (2004, p.2) formally defined an entry mode in its broad concept as “a structural agreement that allows a firm to implement its product market strategy either by carrying out only the marketing operation (i.e. via export modes) or both production and marketing operations by itself or in a partnership with others (contractual modes, joint ventures, wholly-owned operations”. In fact, each entry mode reflects a different level of a company’s control over its marketing mix and the degree of its commitments, and investment in the target market (Albaum, Duerr, & Strandskov, 2011).

Amongst different international entry modes, export is the most common market entry mode for the companies with different sizes (Katsikea, Theodosiou, & Morgan, 2007; Sousa et al., 2008; Zhao & Zou, 2002). In the increasingly complex and competitive business environment, an export entry mode is no longer an option but an imperative for survival (Czaja & Blair, 2005). What distinguishes exporting from other international entry modes (i.e. joint venture and wholly owned subsidiary) is the fact that there is no element of production in exporting. Moreover, it gives firms high levels of flexibility in terms of entering or withdrawing from markets (e.g. Haahti, Madupu, Yavas, & Babakus, 2005). In addition, it is assumed or postulated that exporting does not require extensive financial or human resource commitments in the foreign market when compared to other international entries (Aulakh & Kotabe, 1997; Leonidou, 1995; Sousa, 2004).

Although export entry modes are often assumed to not involve investment in manufacturing facilities and production to not involve investment in manufacturing facilities and production, they can be involved with investments in marketing and distribution operations in foreign destination countries. An export mode of entry is not a homogenous choice and has many facets (Aulakh & Kotabe, 1997). Seeking a different degree of control over their foreign marketing operations, and taking into

account their resources and capabilities (human, financial, technological, marketing, etc.) export firms face many strategic entry alternatives (sub-modes) (Khemakhem, 2010).

Albaum et al. (2011) highlighted that implementing an export mode strategy for each market is analogous to establishing a channel of distribution. Scholars often use the export channel types as a proxy for export entry modes[2]. For a product to reach the final consumer, an export-marketing channel of distribution must be in place. Alubaum et al. (2011, p. 393) defined the international distribution channel as "a system composed of marketing organisations that connect the manufacturer to the final users or consumers of the company's products in a foreign market". Sometimes an export-marketing channel is quite short when the manufacturer directly deals with customers and owns the export marketing operations. However, it can be more complex when a manufacturer utilises other independent marketing organisations or partly owns the facilities to export its products to a foreign market.

There are a range of channel types available to firms when they decide to enter a new export market including, for example, exporting via distributors, employing sales agents to represent the firm in foreign markets, or using the firm's own employees to sell directly in the export destination country (e.g., setting up sales offices in export markets). However, different terminology, definitions, and logics have been employed by scholars and practitioners to distinguish alternative structures. Inconsistent terminology for channel structures throughout the literature on the one hand, and sometimes-overlapping channel structures used by the exporters, on the other hand, made it difficult for scholars to present a crystal clear classification of distribution channel structures and export entry modes (see Khemakhem (2010) for more details).

[2] Often, when one uses the term, export distribution channel, export channel structure, export marketing channel and export entry modes, they are referring to the same concept. Accordingly, this study views these terms as being synonymous and interchangeable.

In this study, in order to be able to present a definition for each channel type (export entry mode), the classic definition of the direct/indirect channel is used as a starting point. Based on this grouping, different export channels are defined and grouped to be either direct or indirect export modes based on the ownership of the channel or the location that sales happen (see section 2.3.1). At the same time, in this section, the definition of different export entry mode is presented. In section 2.3.2, the alternative avenues in classifying export entry mode are introduced. First, the well-developed concept of export marketing integration is explained. Subsequently, the make-or-buy conception is elucidated as an archetypal logic in categorisation of export entry mode.

It is notable that, in addition to these traditional export specific entry mode classifications, the relatively new concept of option value is emerging in broader international marketing and entry mode literature which is discussed further in section 2.5. Through the lens of real options theory, entry modes can be categorised into the one with higher or lower option value. Since this theory is new to the export literature, the theory definition, background, and application are introduced in a separate section (see section 2.5).

2.3.1 Direct and indirect export explained

The most rudimentary classification of export marketing activities is into direct and indirect export. Although different descriptions of what defines direct and indirect export are presented by both scholars and exporters (Khemakhem, 2010), the structure of these two categories is founded on two dimensions of ownership and location (see Table 2.3). For instance, Root (1964) distinguishes between these two alternatives based on the location of the first sale. As such, if the first sale is located in the manufacturer's country, it is referred to as indirect export, whereas if the first consumer or customer along the distribution channel is located in the host country, the exporting is considered as direct. In their book, Albaum et al. (2011, p. 402) distinguished these two forms of exporting based on "how the exporting firm carries out the transactions flow between itself and the foreign importer or buyer". In indirect exporting, the manufacturer uses the service of different types of independent

marketing organisations or cooperative ones located in the home country. Hence, indirect exporting means the responsibility of exporting and selling jobs is carried by these other organisations, not the firm itself. In direct exporting, on the other hand, the responsibility of international sales activities is in the hands of the manufacturer, and the first selling happens in the foreign country either with the help of dependent organisations that are (administratively) part of the firm or through an independent distribution. Based on this definition, the export is considered direct even if they use a third party, an independent distributor or an agent to sell the product as far as they are located in the buyer's country (Meng, 2010).

Table 2.3 Direct and indirect export marketing channels

Dimension	**Indirect**	**Direct**	**Authors**
Location *(First country of selling)*	Selling domestically to a foreign importer or an independent marketing organisation located in the home country, they take the responsibility of selling the products	Selling directly to foreign distributors or to the consumer (see Figure 2.2)	*Root 1964; Aulakh & Kotabeh 1979; Chung 2002; Li 2010; Khemakhem 2010, Albaum & Duerr 2011;Klein et al. 1990*
Ownership *(Who perform the marketing and distribution functions)*	Distributing products in international markets through an intermediary	Using either representative based in the home country who travel to foreign markets or subsidiaries located in foreign countries to sell products	*Anderson and Coughlan 1987; Peng et al., 2006; Lau 2008; Hessels & Terjesen2010; Fernández-Olmos & Díez-Vial 2015*

As demonstrated in Table 2.3, the other dimension that direct and indirect exporting is recognised to be based on is the ownership dimension. As such, some scholars (e.g. Anderson & Coughlan, 1987; Fernández-Olmos & Díez-Vial, 2015; Hessels & Terjesen, 2010) specified that an export is considered indirect when products are marketed through an intermediary (third-party organisation), without any reference to the country in which they are located. Accordingly, direct export involves using either

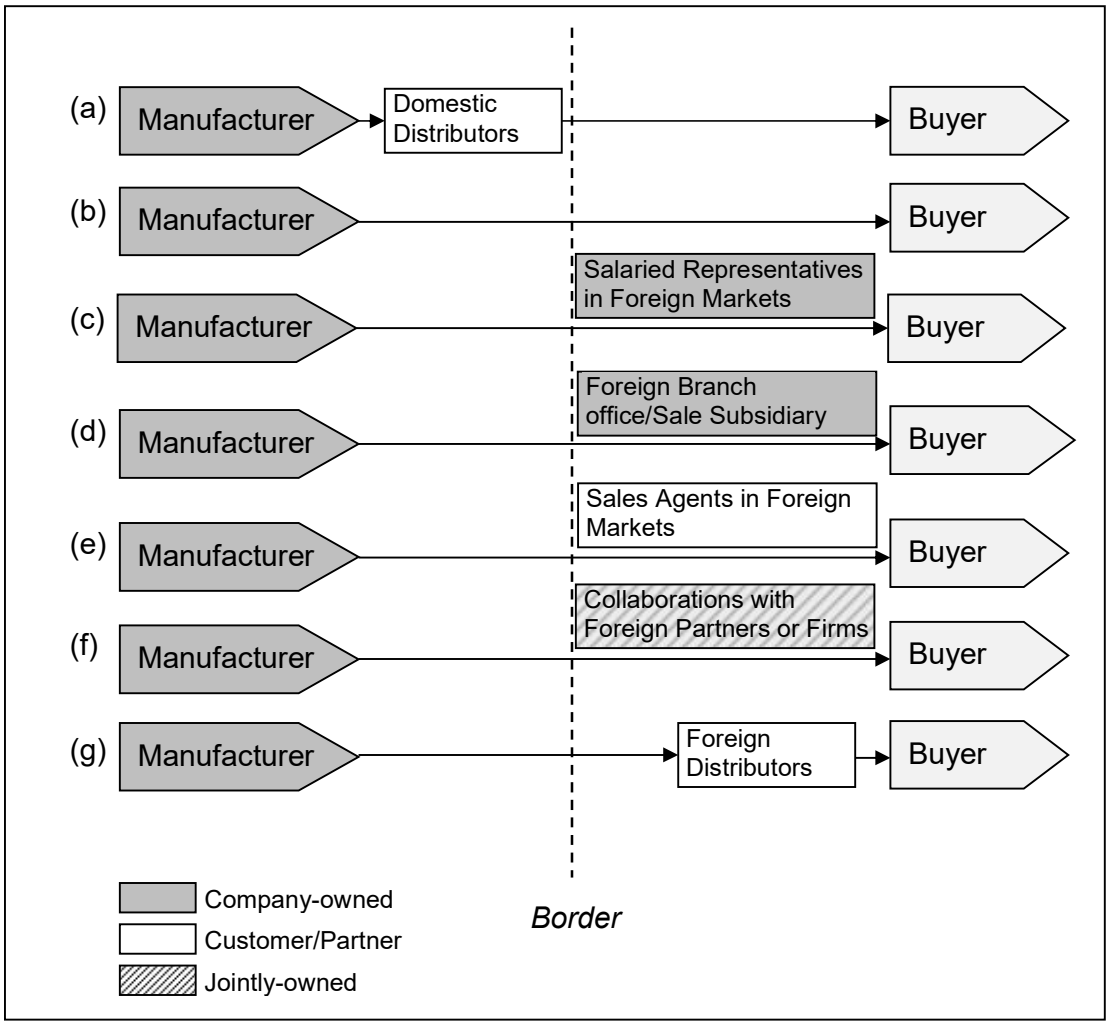
a firm's sales representatives based in the home country who travel to foreign markets or sales subsidiaries located in foreign countries to sell products.

The confusion between these dimensions probably comes from the mixed literature on sales and exporting. The concept of the direct and indirect channel of distribution in international marketing and exporting has been borrowed from the sales literature. Where in the sales literature it is assumed that channel of distribution is entirely located in the home country, the ownership and profit claim centres are the aspects of distinguishing between the direct and indirect sales distribution channels. However, when it comes to the export distribution channel, the location of the first country in which the sale activity happens is also a determinant of the direct or indirect channel. For instance, Shervani et al. (2007) utilised the direct/indirect terminology referring to the work by John and Weitz (1988) on the sales distribution channel. That is why the element of the country is not evident in their work and only the ownership is discussed to distinguish the two different channel structures.

Based on both the majority of export specific literature on export entry mode (e.g. Albaum et al., 2011; Aulakh & Kotabe, 1997; Klein & Roth, 1990), and practitioners' sources of information (e.g. Export Europe website), the location dimension is mostly considered to distinguish between direct and indirect export modes. As clarified in Figure 2.2, different entry mode types are categorised into direct and indirect based on the location dimension. The dotted line demonstrates the borderline that distinguishes the location of the home country and host market country. Accordingly, Figure 2.2 (a) illustrates the indirect export mode where the location of the buyer is in the home country, where a firm sells its products to a domestic distributor who then is in charge of selling the product to a foreign buyer. Direct export mode, on the other hand, includes different export channel shapes in which a firm deals with different foreign customers and consumers in the foreign market. Using direct modes, a firm could utilise its foreign-based company-owned facilities (i.e. sales subsidiary) and resources (i.e. sales representatives) to sell to the customers and consumers in the market. Moreover, collaborations with host market firms in different forms, or selling the products to foreign distributors and sales agents, are other forms of direct exporting. The broader view of alternative direct exporting is

illustrated in Figure 2.2 (b) to (g). The definition of each export entry mode, (a) to (g), is followed, consecutively.

Figure 2.2 Different export entry modes outlined as (a) indirect, and (b) – (g) direct



(a) Indirect exporting: where exporting involves selling products to a domestic intermediary such as export management companies, trading houses, etc. They find foreign markets for the manufacturer's products and take responsibility for the whole commercialisation process.

(b) Remote Direct Sales: illustrates the shortest distribution channel in the direct sale when a firm achieves sales, delivery management and marketing of its products from the home country. There is no local structure, representative,

partner or intermediary to conclude the sale. For the manufacturer to get involved in remote direct export, an export department or export division in home country seems necessary in order to coordinate and control the marketing and sales operations (Albaum et al., 2011)

(c) Salaried Representative: the salaried representative is an employee contracted to work for the company, resides in the home country and travels abroad to perform sales activities. This sales representative is under the firm authority and in addition to sales activities they can gather information on the foreign market competition, customer preferences, market trend, and act as a communicator (Albaum et al., 2011)

(d) Branch Office or Sale Subsidiary: this type of direct export is via a firm's local presence. While a sales subsidiary is wholly owned and controlled by the manufacturer, it is locally registered, and legally is independent of the parent company. A foreign sales branch, on the other hand, is simply an extension of the export firm in the foreign market, which facilitates a closer supervision over the sales made in a particular market area. It handles all of the sales, distribution and promotional work in a specific market. Thus, where used, it is the first link in the marketing channel in a foreign market. It can also act as the company's service centre to serve customers in the foreign market. Providing storage and warehousing facilities for the manufacturer, a foreign sale branch can maintain an inventory of the product, as well as replacement and maintenance parts (Albaum et al., 2011).

(e) Sales Agent: An exporter's sales agent, also known as a sole agent, is an independent permanent principal representative for a given territory. The agent does not take possession of the product and takes no responsibility for the goods, and only sells the products on behalf of the firm. They are paid a commission for each transaction.

(f) Collaborations: the joint export agreement is a method of export in which the company exports in co-operation with one or several foreign partners. It is a helpful method mostly for companies that lack the financial and human

resources or experience necessary to successfully attack foreign markets on their own. A partnership is one way to overcome these obstacles. By forming alliances, companies can combine their respective skills and know-how. Similarly, they can share risks and costs in order to achieve common goals, and improve competitively in the long term. There are different forms of international exporting co-operation including piggyback, commercial franchise, and export joint ventures.

(g) Foreign distributors: The foreign distributor or an importer is an independent foreign business, which buys products from the exporter, and then re-sells them at its own risk, and for its own profit. This method is also considered as direct exporting as the first selling point is in the foreign country. However, the firm has the least control on the sale in the foreign market.

It is notable that indirect exporting defined based on the location dimension has not been included in the majority of export studies, since it requires the very little involvement of the manufacturing exporting firm in its foreign markets (e.g. Aulakh & Kotabe, 1997). Accordingly, this study focuses on different types of (direct) exporting that necessitate active channel decisions in the foreign markets.

2.3.2 Export channel integration explained

Another well-discussed avenue to distinguish different export mode structures and export entry modes (instead of direct/indirect classification) is the concept of “channel integration” (Li et al., 2017). When a domestic manufacturer decides to enter a foreign market via exporting, a fundamental strategic question they must address is “should the product be distributed via a company-owned distribution channel or [whether] it is more efficient to contract distribution to an independent organisation” (Anderson & Coughlan, 1987, p. 71). While the former option is an integrated channel, the latter is referred to as a non-integrated one[3]. As Robinson (1991) debated, to a manager, this concept is the traditional "make or buy" dispute, where “make” typically refers to establishing a direct, integrated (sale) channel that

[3] It is notable that this categorisation is within direct export channel modes.

completely controls by the firm, and “buy” refers to buying service from other independent firms (e.g. intermediaries) to perform certain activities for the firm. In the same vein, Andersons and Coughlan (1987) categorised channel choices as integrated and independent channels (non-integrated). This classification was also adopted by other studies (e.g. Khemakhem, 2010; McNaughton & Bell, 2001; Ramaseshan & Patton, 1994). In this taxonomy, selling through the company sales force and company distribution division are considered as integrated, and using independent intermediaries including outside sales agents and distributors considered as an independent channel.

Instead of dichotomous integrated/non-integrated export channel type, some scholars adopted a degree of channel integration. The degree of export marketing integration then is defined as the extent to which exporting activities and operations are performed and controlled internally within the firm (Anderson, 1985; Brettel, Engelen, & Müller, 2010; Gatignon & Anderson, 1988; Khemakhem, 2010; Klein et al., 1990; Klein & Roth, 1990; Merino & Salas, 2002; Rialp et al., 2002). Khemakhem (2010, p. 225) defined integration as an internalisation process that “allows firms to perform and coordinate different business activities properly, better meeting consumer needs and receiving, in the best circumstances, some feedback from the market”.

The more the firm is involved in undertaking exporting activities, and the closer the firm is to its export markets and export customers, the more one can say that exporting is integrated in the firm, the more a firm shies away from export marketing responsibilities (e.g., by using distributors), the less integrated exporting is. As a result, export marketing integration is considered as a continuum that ranges from non-integrated to highly integrated, with shades of integration in between.

At one end of the spectrum (low integration), the manufacturer exerts no control over the marketing of the product in the export market. Exchanges with the market are very external and remote (e.g., entirely through a third party, perhaps via an independent distributor) and the relationship with the distributor is highly transactional, since using distributors does not provide the opportunity for the

manufacturer to get close to the market. Although the manufacturer used distributors, it does not use them as a method of getting close to the market, these non-integrated distributors are very external to the exporter and represent a barrier between the exporter and the export market (Rialp et al., 2002; Shervani et al., 2007).

At the other end of the export marketing integration continuum, exporting activities are completely internal within the firm. The manufacturer has almost complete control over the distribution channel and all the stages of exporting activities in the foreign market. Companies with this degree of export integration may bypass distributors and internalise the market directly (using its own sales force, for example). Indeed, the firm may establish sales branches or subsidiary units in the target country. This level of integration can be considered analogous to FDI, where the exporting activities fall short of production in the export market, but could include assembly.

At an intermediate level of integration, the manufacturer may have no direct exchanges with the export market (so the market is external to the firm), but the manufacturer's relations with its export distributors are strong. In this intermediate mode, the manufacturer may become involved in investing in the distributor (e.g., through training and other idiosyncratic investments), or investment in strategic alliances with the distributor (e.g., setting up equity-based JVs with distributors) (e.g.,Klein and Roth 1989; Rialp et al., 2002).

Three distinct degrees of channel integration are named the market mode, hybrid mode, and hierarchical mode by Klein and Roth (1990); where using distributors and intermediaries is equal to the market mode, hierarchical models are integrated channels with offices at home or in foreign markets, and the intermediate or hybrid mode involves the firm performing some functions internally and contracting out the rest. The latter type of intermediate integration mode is exemplified by the use of commission agents by Klein and Roth (1990). Positioning these three export modes along the integration continuum, the authors advised that these modes refer to general rather than specific mode alternatives.

As seen in Table 2.2, and highlighted by Li et al. (2016), there are additional approaches and typologies that have been used to classify export entry modes beyond the direct/indirect and degree of integration classifications. For example, the following terms have been used: proprietary channel/non-proprietary channel (Merino and Salas, 2002), single/multiple channel (McNaughton, 2002), and hierarchical/cooperative channel (He et al., 2013). These broad terms could be summarised under the single umbrella term of 'make versus buy'.

Make is equal to using direct, integrated, internalised, and hierarchical modes, whereas buy is considered as indirect, non-integrated, externalised, and market modes of export (Lau, 2008; Peng, Zhou, & York, 2006). Robinson (1978, p.357) maintains that the make versus buy conception is "one of the most debated and critical areas in international business". Indeed, David and Han (2004) say that the classic make versus buy (i.e. hierarchy versus market) dichotomy is the most frequently examined export entry mode variable.

In addition to inconsistencies in definition presented for different export entry modes, the other remarkable point retrieved from this systematic review is the clear absence of portfolio logic in the export mode decisions. This means that studies only investigated the entry decisions in a venture level where the decision is to choose one entry mode relative to other modes within the context of a single export product sold to a single export market. Considering the portfolio logic is particularly important when examining the success of the export firm, for two reasons. First, because the export mode choice is recognised as one of the main drivers of export performance (as discussed in section 2.2.3). Second, as rationalised in section 2.2.1, it is essential to evaluate export success at the firm level, and to test the drivers of the performance in the same level (export firm level). Therefore, there is a gap in the literature on how the "shape"[4] of the export mode portfolio could contribute to the export performance. Further to this, it is then important to explore the drivers of the

[4] Shape of the export mode portfolio simply describes how different modes of export entry are used within the firm: for instance, using the make/buy dichotomy as an example, different firms will have different profiles in terms of the percentage of their ventures that they operate in using 'make' approaches, and the percentage of their ventures that they operate in using 'buy' approaches.

export mode portfolio of the firm. Subsequently, in the following sections, the drivers of entry mode choice are reviewed extensively.

2.3.3 Motives behind entry mode choice

In the extant literature, the motivation behind choosing one export entry mode versus the other is justified and supported using different theoretical lenses (Li et al., 2017). As presented in Table 2.2, export entry mode studies are embedded in different theoretical perspectives, including transaction cost economics (TCE) (e.g. Klein et al., 1990), the Uppsala internationalisation process model (UM) (e.g. Khemakhem, 2010), the resource-based view (RBV) (e.g. He et al., 2013), and institutional theory (IT) (e.g. Hessels & Terjesen, 2010). However, amongst them TCE embraces a principal locus in explaining export entry mode decisions. The stream of research that employed TCE perspective has often framed entry mode choice as determined by the need for control to minimise comparative costs associated with the governance structure (Anderson & Gatignon, 1986; Williamson, 1985).

However, there is another stream of research developing in the international marketing and strategy context called real options theory (see Table 2.4). This perspective posits that in addition to control, ownership strategy (entry mode strategy) is also profoundly concerned with the choice between flexibility and commitment (Li & Li, 2010). As such, under certain conditions firms prefer flexible entries to committed and fully controlled ones.

In the following sections, first, the well-established theory of TCE, which is applied extensively in predicting export entry modes, is expounded. Then the entry mode selection strategy from a real option perspective is introduced. The literature for the latter is borrowed from the broader international marketing strategy context.

2.4 Transaction Cost Economics

TCE is one of the leading theoretical perspectives in entry mode and channel management studies (Chen et al., 2016; David & Han, 2004; Li et al., 2017; Shervani

et al., 2007). This theory is founded on Coase's (1937) work and then developed by Williamson (1975, 1979, 1981, 1985). Transaction cost theory was originally formulated to address make-or-buy decisions (Peng et al., 2006; Rangan, Corey, & Cespedes, 1993). As Williamson (1985) highlighted, make-or-buy decisions are paradigmatic problems central to transaction cost theory, thus, it is important to understand the factors that influence the choice between the two (Peng et al., 2006).

The focus of TCE is to minimise transaction costs through designing the governance structure that supports efficient transactions. Transaction costs are the cost of governing the transaction including both ex-ante costs (e.g. cost of negotiating and drafting a complete contract including all contingencies), and ex-post costs (e.g. monitoring and enforcing agreement) (Castañer, Mulotte, Garrette, & Dussauge, 2014; He et al., 2016). The efficiency and cost reduction considerations in TCE are founded on the assumption of human behaviour, namely bounded rationality and opportunism (Williamson, 1985).

Bounded rationality recognises that decision makers have constraints on their cognitive capabilities and limits on their rationality. In other words, their behaviour is "intendedly rational, but only limited so" (Williamson, 1999, p.1089). These limits (bounds) on rationality also make it nearly impossible to consider every contingency in advance when drawing up contracts, and that necessitate reliance on rules of thumb (Simon, 1982).

In addition to a limitation in making rational choices in complex situations, a threat of opportunism is another critical behaviour that each organisation arrangement should be responsive to (Carroll & Teece, 1999). Opportunism refers to decision makers' "intention of seeking to serve their self-interests given the opportunity" (Williamson, 1985, p.47). In Williamson's work, "self-interest seeking remains the underlying assumption regarding human motivation, but special emphasis is placed on the limitations of human rationality and on the willingness of individuals to conceal or misrepresent facts" or capitalise on strategic advantages (Carroll & Teece, 1999, p.39). Controlling or uncovering opportunism places an additional demand on bounded rationality. Thus, organisations are better off to shape transactions "as to

economise on bounded rationality while simultaneously safeguarding them against the hazards of opportunism" (Williamson, 1985, p. 432).

Under these assumptions of TCE, three factors are mentioned to mainly contribute to the transaction costs including asset specificity, external uncertainty and internal uncertainty. Asset specificity refers to the assets (tangible and intangible) that lose value in alternative use (Williamson, 1985). Thus, it is argued that firms with greater specific assets may incur higher transaction costs in safeguarding their asset from opportunism and risk of dissemination (Brouthers, 2002; Gatignon & Anderson, 1988; Hennart, 1991; Williamson, 1985). External uncertainty is when the environment of a transaction cannot be specified ex-ante, thus, makes it difficult to specify in advance all possible contingencies in a contract, whereas internal uncertainty makes it difficult to verify performance later (Brouthers et al., 2008). Considering bounded rationality in the decision-making procedure, uncertainties could increase transaction costs (He et al., 2016).

Thus, TCE advocates the use of ex-ante control mechanisms to minimise transaction costs arising from asset specificity, potential partner opportunism, and inability to predicting environmental contingencies (Li & Li, 2010; Williamson, 1985). In fact, it is the increasing cost associated with these factors that acts as the stimulus for the company to increase control over its operations by internalising its activities within the firm, as opposed to using an external party to act for the firm in its foreign markets (Aulakh & Kotabe, 1997; Brouthers, 2002; Brouthers, Brouthers, & Werner, 2003; Scherpereel, 2008; Williamson, 1985).

Consequently, based on the original Williamson (1975)'s work, the TCE framework for determining entry mode structures (make versus buy) is built on a set of these three factors. These factors and their effect on the channel structure and entry mode are elaborated in the following sections.

2.4.1 Asset specificity

Williamson (1981) defines asset specificity as the extent to which specialised investments are needed to support an exchange. They are “durable investments that are undertaken in support of particular transactions” (Williamson, 1985, p.55), and they lose value in alternative use (Williamson, 1985). Firm specific assets consist of unique tangible and intangible assets.

In the export marketing context, investment in office and warehousing facilities, as well as technological resources in host markets, are examples of a firm’s tangible assets (Brouthers & Brouthers, 2003; Brouthers et al., 2003; Erramilli & Rao, 1993; Klein et al., 1990). In addition, marketing know-how (e.g. Bradley & Gannon, 2000), marketing capability (e.g. He et al., 2013), employees training (e.g. Agarwal & Ramaswami, 1992), skill development, and human asset specificity (e.g. Anderson & Coughlan, 1987) are examples of a firm’s intangible assets.

Specific assets often involve proprietary knowledge and such knowledge needs to be protected from actual/potential competitors (Williamson, 1985). One of the traditional sources of asset specificity in firms is R&D activities and investments (Brouthers et al., 2008; Folta, 1998; Helpman & Krugman, 1985; McNaughton, 1996; Merino & Salas, 2002).

On the one hand, firms that produce and sell products as an outcome of their R&D investment are more likely to deal with tacit and implicit knowledge about the product that needs to be protected (Merino & Salas, 2002). In fact, R&D investment gives the firm opportunity to produce products with specific characteristics (Ekeledo & Sivakumar, 2004). This product uniqueness, subsequently, involves a relatively high level of product establishment process, product patent protection, sales force training, product cultural specificity, and product service and maintenance support. These characteristics are sources of competitive advantage for the firm in the host markets (Cavusgil & Zou, 1994; Ekeledo & Sivakumar, 2004; O’Cass, Ngo, & Heirati, 2012). Thus, under the assumptions of TCE, this specific investment needs to be

safeguarded against potential opportunism threats of any partner, through internalised marketing activities.

On the other hand, to enhance the economic benefit of R&D investments, firms often have 'complementary' investments in market research, and channel development to be capable of gathering significant market intelligence, and identifying customers in a fine marketing niche. These marketing capabilities and intelligence are intangible specific assets that are more likely to be found, developed, sustained, and protected in internalised (integrated) marketing operations (McNaughton, 1996).

Thus, it is suggested that firms with high direct and complementary R&D investments are likely to prefer to market their products in their export markets through internalised entry modes. It is notable that the R&D foundations and its competitive advantages are firm-specific that are driven not only from the development and marketing of a particular product but also from the total learning process of the firm from all its markets.

Moreover, apart from being R&D active or not, firms need to understand the foreign market to position their products in the host markets. Market knowledge helps the firm identify changes in products that will lead to greater acceptance and sales (He et al., 2013). Firms with strong marketing capabilities have the ability to tap information in the market (customer, competitor, and external environmental information), process that information internally, and use that information to respond effectively (Jaworski & Kohli, 1993). The marketing skills and capabilities developed to sell the products, and the firm's strength in sales are key specific assets for international firms (Sanchez-Peinado, Pla-Barber, & Hébert, 2007). These assets are especially prone to issues related to information dissemination and the exploitation of information by third parties. These skills and capabilities are developed over many years and are rooted in a firm's culture, systems, and routines, thus, need to be protected (Sanchez-Peinado et al., 2007).

As a result, to protect valuable assets from the potential opportunistic partners in the foreign market, the firm has to impose more control over its export marketing

channel (Brouthers, 2002; Gatignon & Anderson, 1988; Hennart, 1991; Makino & Neupert, 2000). Therefore, to effectively protect their assets, firms are better off to internalise their marketing channels and only enter host markets through integrated modes (Klein et al. 1990). Having said that, the positive effect of asset specificity on channel integration has received empirical support in studies by Anderson (1985), Anderson and Coughlan (1987), John and Weitz (1988), and Rialp et al. (2002). However, there are a number of studies that did not find any significant effect of asset specificity on establishing the export marketing channel (e.g. Kogut & Singh, 1988; Merino & Salas, 2002).

2.4.2 Internal uncertainty

When entering an export market, firms may choose to form a partnership with local firms in different forms of strategic alliance, joint ventures, using agents, or independent firms (Klein & Roth, 1990; Rialp et al., 2002). Although this partnership may facilitate access to market knowledge, the firm may encounter increased cost in finding and monitoring a partner either because of difficulty in estimating all possible contingencies in the agreement, or due to lack of measurable outputs (Brouthers, 2002; Williamson, 1985).

The principle argument under TCE is that potential partners may act opportunistically if not appropriately chosen (Brouthers 2002), and if not easy to be monitored (Aulakh & Kotabe, 1997; Brouthers et al., 2008; Brouthers & Hennart, 2007). In Williamson's (1981) work, internal uncertainty is considered the core factor affecting the entry mode establishment (Ahsan & Mustin 2011). Internal uncertainty arises from two sources: uncertainty concerning potential opportunistic actions of partner organisations (partner uncertainty) and the inability to monitor the performance of the partner firm (behavioural uncertainty) (Brouthers et al., 2008; Brouthers, 2002). Transaction cost theory maintains that the costs of finding and negotiating with an appropriate partner, and the costs of monitoring the performance of the partner firm influence entry mode choice (Agarwal & Ramaswami, 1992; Brouthers & Xu, 2002; Erramilli & Rao, 1993; Gatignon & Anderson, 1988; Makino & Neupert, 2000; Williamson, 1985).

On the one hand, partner uncertainty reflects the likelihood of the opportunistic threat felt from the potential partner *before* deciding to make the partnership. Therefore, the more a firm feels uncertain about the potential partners (in terms of chances of them seeking their own self-interest, or pursue free ride in the partnership), the more control and monitoring of their operations is expected, which is costly to the firm.

Another aspect of internal uncertainty that is predominantly discussed by scholars is behavioural uncertainty (Brouthers, 2002; Shervani et al., 2007). Behavioural uncertainty is the extent to which it is difficult to assess performance (Williamson 1988). When performance ambiguity is present, the firm cannot easily measure what level of performance it is getting (Shervani et al., 2007). Thus, when behavioural uncertainty is high, non-integrated market entry modes could lead to higher transaction costs, as the firm would need to seriously monitor and direct the activity of independent firms (due to no measures of results or poor measures of results).

Of course, one way to control the partner behaviour is to write complete contracts between parties involved in order to allow for any eventuality (Brettel, Engelen, & Muller, 2010; Brettel, Engelen, & Müller, 2010). However, taking into account bounded rationality of human beings, writing and enforcing complete contracts are costly and sometimes impossible (Alchian & Demsetz, 1972). Therefore, TCE predicts that as internal uncertainty increases, firms are likely to increasingly rely on more internalised export modes. As such, greater administrative control mechanisms provided by the internal solutions makes monitoring easier and eliminates the likelihood of shirking (Brettel, Engelen, & Müller, 2010; Shervani et al., 2007; Williamson, 1975). Echoing Williamson (1991)'s work, Crook et al. (2013, p.63) emphasised that "managers should select the alternative [entry mode] that minimizes transaction costs arising from identifying qualified exchange partners, negotiating contracts, monitoring performance, and adapting to changing conditions".

Although the effect of partner uncertainty on entry mode decisions has been mentioned by several scholars (e.g. Brouthers 2002), it has not been empirically investigated. Behavioural uncertainty, on the other hand, is mostly considered as synonymous with internal uncertainty. Yet the empirical results of the studies in both the export specific and international marketing literatures are mixed and

contradictory. Shervani et al. (2007), Brouthers (2002), and Manolis et al. (1997) found increased behavioural uncertainty related to the choice of integrated entry modes, while Brouthers and Brouthers (2003) found the reverse. He at al. (2013), and Brouthers et al. (2003), for example, reported that behavioural uncertainty is unrelated to the mode choice.

2.4.3 External uncertainty

External uncertainty is the extent to which it is difficult to accurately predict future states of the world (Williamson, 1981). Williamson (1985) considered external uncertainty as a condition that makes optimal contracting unrealistic. Given bounded rationality, high external uncertainty prohibits the writing and enforcement of contingent claims contracts that specify every eventuality and consequent response (Anderson & Weitz, 1986; Klein et al., 1990; Shervani et al., 2007). Further, it allows negative information asymmetries to develop and provide the potential for outside intermediaries and potential partners to behave opportunistically (Klein et al., 1990). Therefore, under high external uncertainty, transaction costs are likely to be high in the non-integrated, low control modes of market entry, which leads to greater motives for establishing higher levels of channel integration (Klein et al., 1990; Shervani et al., 2007). In this respect, internalisation may facilitate absorption of the external uncertainty through specialisation of decision making within the firm (Aulakh & Kotabe, 1997; Li & Li, 2010). It is also argued that integrated channels are the optimum choices for firms facing an uncertain and complex environment as it saves the firm unnecessary communication costs and facilitates an adaptive decision process (Klein et al., 1990).

Gatignon and Anderson (1988, p. 315) indicated that external environmental uncertainties are “generally understood to mean the extent to which a country's political, legal, and economic environment threatens the stability of a business operation”. It is an aggregate concept based on the range of factors that can make a country risky or “safe” for investment (Brouthers & Brouthers, 2003; Gatignon & Anderson, 1988). A safe country is one that is politically and economically stable and not legally restricted for foreign investors (Gatignon & Anderson, 1988).

Political, economic and social factors that configure the country risk are highly interrelated and reflect the complexity and unpredictability of the host market. Under high levels of uncertainty, it is more difficult for the foreign firm to obtain, process, and act upon the environmental changes (Delios & Henisz, 2003; López-Duarte & Vidal-Suárez, 2010). Uncertainty of the host country's formal environment may make it impossible for the foreign investor to anticipate all contingencies in advance, write a complete contract (Agarwal, 1994; López-Duarte & Vidal-Suárez, 2010), and enforce contracts (Brouthers & Nakos, 2004).

In fact, adaptations of a contract with a partner are difficult under conditions of strong external uncertainty (Morschett, Schramm-Klein, & Swoboda, 2010). If a company desires increased control, in order to decrease the risks associated with a host country (e.g. political, economic and legal risks) it has to commit additional resources (Erramilli & Rao, 1993; Gatignon & Anderson, 1988; Williamson, 1985).

In the export specific literature, studies embedded in the TCE framework investigated the relationship between different types of environmental uncertainties and export entry decisions. For instance, Manolis et al. (1997) considered market uncertainty and regulatory environment uncertainty as forms of environmental uncertainty to determine the degree of channel integration. Country risk represented external uncertainty in the studies of Aulakh and Kotabah (1997) and Sanchez et al. (2007) to predict the degree of export channel integration. Institutional distance is used in the work of Campa and Guillén (Campa & Guillén, 1999) as a proxy to external uncertainty in determining entry mode type.

Being rooted in the concepts of bounded rationality and shirking, the TCE framework maintains that to mitigate the negative impact of external uncertainty firms are advised to be concerned with the potential cost of shirking on the part of a local partner (Caves, 1996), and retain the ownership of their entry mode (Sanchez-Peinado et al., 2007). Williamson (1975) notes that because managers' knowledge is bounded, they are often unable to predict future contingencies. Thus, when entering new markets, high external uncertainty makes it very expensive to use low control entry modes since writing and enforcing contracts that specify eventualities and consequent response will be quite expensive (Brouthers et al., 2008).

The empirical evidence on how external uncertainty could affect entry mode decision is mixed. It is mainly due to the wide variation in defining and measuring this construct (Brouthers & Hennart, 2007; Zhao et al., 2004). Scholars only relied on a specific part of external uncertainty (e.g. legal uncertainty, or political uncertainty) and reported contradictory findings. As illustrated in Table 2.2, Gatignon and Anderson (1988) did not find any relationship between legal restrictions and choice between integrated and non-integrated channels. Rialp et al. (2000) also did not find a significant relationship between external uncertainty (country risk) and export entry mode selection. Shervani et al. (2007) found the opposite result and could not support their hypothesis on the positive relationship between external uncertainty and integrated export channel. Klein (1989) partly supported the effect of environmental uncertainty on integration decisions.

2.4.5 Summary notes on TCE and export entry mode

TCE demonstrates that the decision to choose a particular governance structure depends on the comparative transaction cost (Brouthers, 2002; Erramilli & Rao, 1993; Klein & Roth, 1990). Transaction cost variables are concerned with the costs of integrating an operation within the firm as compared with the costs of using an external party to act for the firm in a foreign market (Brouthers, 2002; Williamson, 1985). All things considered, managers with a ‘TCE mindset' are expected to fully control and own their operations in their foreign markets. Therefore, when considering exporting their products to their foreign markets, the likelihood to invest in modes with an external partner significantly decreases. As echoed by Anderson and Gatignon (1986), the concept of integration is embedded in the TCE mindset, and control is the focus of the entry mode literature. Integration is believed to be the single most important determinant of investment return. High-control modes have potential to increase return on investment by avoiding unwanted transaction costs. In low-control modes, on the other hand, although minimizing the resource commitment costs, their return on investment is compensated for by increased transaction costs. Employing control mechanism can be achieved through integrated operation and ownership (Brouthers & Nakos, 2004).

However, despite the established reasoning under the TCE, Table 2.2 reveals that the outcomes of the effect of TCE factors on entry mode have been inconsistent over the past two decades of export literature. While some of them support the discussion above, the others found non-significant or presented mixed results.

Moreover, referring to Table 2.2, a considerable number of studies indicated TCE as the core theory in their entry mode predictions. Nonetheless, in the majority of those studies, there have been many extensions to this theory where scholars used enhanced TCE models with additional or alternative variables to the core propositions elaborated by Williamson (1975, 1981, 1985, and 1991).

Looking into the broader international marketing literature, the entry mode studies are more focused on the main factors of the TCE framework. As is evident in Table 2.4[5], international entry mode studies fairly covered and tested the principle variables of the TCE perspective, and started to introduce the theory of Real Options (RO) referring to TCE inefficiencies. Real option theory in some ways criticizes or complements TCE, and could create a different perspective on investigating the entry mode decisions. In view of that, export literature lags behind the broader international business literature where theoretical foundation has extended to RO.

While focused primarily on integration and control as a way of minimising uncertainty and related costs, TCE has failed to explore the effect of different aspects of uncertainty, and value creation as opposed to cost minimisation in integration decisions. Thus, the decision to integrate is explicitly explained in terms of power control considerations and efficiency considerations (cost minimisations). In fact, to achieve the profitability objective, the TCE framework only distinguishes cost minimisation objectives (Merino & Salas, 2002).

TCE's approach to entry mode lacks attention to opportunity cost (Brouthers et al., 2008) and ignores the dynamics associated with learning and knowledge development resulting from different degrees of integration. Based on this criticism,

[5] To be included in this review, studies must have empirical results and mainly focus on entry mode decisions. Since the RO is a new theoretical approach in the international business and strategy context, the empirical evidence is relatively limited.

scholars of international business and strategy are now paying greater attention to RO theory which is shown to provide success in managing (as opposed to only minimising) uncertainty in decision-making processes. RO theory has its roots in financial options, and adopts a 'dynamic' rather than a 'static' approach toward integration decisions in uncertain environments. Its main assumption is that 'firm-specific' investments (including physical assets, human resource, marketing and R&D) are irreversible; so that to limit irreversible investment, integration is not the only solution to uncertainty, and entry modes should correspond to the magnitude and type of uncertainty the firm faces (Li, 2007; Tong & Reuer, 2007).

In the following sections, prominent RO theory is reviewed and assessed. One of the main reasons for choosing RO and comparing it with TCE is that both theories have explicitly considered the central role of uncertainty in international entry mode decisions (Ahsan & Musteen, 2011). In addition, specific assets and investment play a dominant role in determining entry mode in both theories. As mentioned earlier, RO is a new theory introduced to the field of entry mode decisions and, to the best knowledge of the researcher, has not been applied to the export entry mode context. Thus, this review is focused on international multinational firms' entry mode decisions and its potential extension to the export context will be investigated, subsequently.

Table 2.4 Multinational firm's entry modes

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
1	Brouthers et al. (2008a)	RBV	Last market entry	Firm specific resources (+); Dynamic learning capability(experience) (mix) Fit – performance (+)	(MO) social norms (-); country risk (-); legal distance (-)	WOS vs. JV	Yes
2	Brouthers and Nakos (2004)	TCE	Last market entry	Asset specificity (+) Internal control system (experience) (+) Environmental Uncertainty (-) Fit- performance (+)	(CO) Firm size (NS); Legal restriction on foreign firms (NS); Nationality (+); Industry type (NS)	Equity modes vs. non-equity modes	Yes
3	Brouthers (2013)	TCE, IT	Last market entry	Trans cost (monitoring) (+) Asset specificity (+) Legal restriction (-) Investment risk (NS)	(CO) Firm size (NS); Experience (NS); Industry	WOS vs. JV	

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
				Market growth potential (+) Fit-performance (+)	sector (-)		
4	O'Cass et al. (2012)	RVB IT	Last market entry	Resource availability (+) Product differentiation (+) Firm size (NS) Home market dynamism (+) Host market dynamism (+) Equity mode →performance (+)	(CO) Firm type (manufacturing vs. industry)	Equity modes vs. non-equity modes	Yes
5	Brouthers et al. (2008)	TCE, RO	Last market entry	Demand Uncertainty → DV1 (+) Strategic flexibility (experience) →DV1 (-) Investment Uncertainty →DV2 (-) Control Uncertainty→ DV2 (+) Asset specificity→ DV2 (+) AS x Investment Uncertainty→ DV2 (NS) Fit-performance (+)	(CO) Firm size, self-selection (Heckman), Industry type (MO) Asset specificity(NS)	DV1: Option vs. non-option DV2: WOS vs. JV	Yes

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
6	Sanchez et al. (2007)	TCE	Last market entry (Service firms)	Market intensity (+) Host country risk (-) Cultural distance (-) Tacit know how (+) Firm size (+) International experience (-) Global nature of strategy (+)		Full control modes (green field/acquisition) vs. Shared control modes (contractual agreements, partial acquisitions, and joint ventures)	No
7	Brouthers (2002)	TCE; IT	Last market entry	Transaction costs (+); Asset Specificity (NS); Legal restriction (-) Investment risk (-) Market potential (NS) Fit - financial and non-financial performance (mix)	(CO) Firm size(NS); international experience (NS); Industry sector (service vs. manufacture)	WOS vs. JVs	Yes

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
					(+)		
8	Brouthers and Brouthers (2003)	TCE	Service vs. manufacturing	Service industry (S): Asset specificity (+); Environmental uncertainty (NS) Behavioural uncertainty (-) Manufacturing industry (M): Asset specificity (NS) Environmental uncertainty (-) Behavioural uncertainty(NS)	(CO) risk propensity (M+), trust propensity (S-), Environmental uncertainty x asset specificity (NS); firm size (S+); region specific experience (+); , legal restrictions (S-),	WOS vs. JVs	No
9	Brouthers et al. (2003)	TCE	Last market entry	Asset specificity (+) Economic uncertainty (+) Behavioural uncertainty(NS) Economic uncertainty x Asset specificity (NS)	(MO) Asset specificity (NS) (CO) Experience (NS) Firm size(-)	Dependent variable1: WOS vs. JVs Dependent	Yes

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
				Firm size (+) Experience (+) Legal restriction (+) Industry type (NS) DV2: Performance Fit (+)	Industry type (NS) Mode (NS) Self-selection correction (-)	variable2: Performanc e	
10	Brothers and Divoka (2010)	RO; TCE (as control)	Most recent entry	Demand Uncertainty (NS) Acquisition strategic flexibility (+) Subsidiary size (+) Demand uncertainty x subsidiary size (+) Acquisition strategic flexibility uncertainty x subsidiary size (-)	(MO) Subsidiary size (Co) Technological intensity (NS) Advertising intensity (-) Host environment uncertainty (-) International experience (-) Subsidiary Related	Acquisition vs. Greenfield	No

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
					investment (+) ownership (-) Manufacturing (NS) Firm size (NS)		
11	Folta (1998)	RO, TCE (as control)	Firm	Partner dissimilarity (+) Technical value(+) Technological uncertainty (+) No. of rival in the domain (-) Technological uncertainty x Asset specificity (+)	(MO) Asset specificity (CO) Interest rate (+), Cultural differences (-)	Equity collaboration (JVs, and minor investment) vs. acquisition	No
12	Cuypers and Martin (2010)	RO	A JV	Exogenous uncertainty: Economic uncertainty (+) Local institution uncertainty (+) Exchange rate uncertainty Endogenous uncertainty:	Duration (+) Firm size (NS) Experience (-)	Smaller vs. larger foreign share	No

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
				Cultural uncertainty (NS) Development uncertainty (NS) Scope-related uncertainty(NS)			
13	Li (2008)	RO, AT	Last market entry	Exogenous uncertainty: Market uncertainty Level of competition (-) Endogenous uncertainty: project specific uncertainty (-) Behavioural uncertainty (+)		Delayed vs. soon foreign investment	
14	Lopez-Duarte and Vidal-Suarez (2010)	TCE	Last market entry	External uncertainty (political risk, cultural differences) (+) External uncertainty x language similarity (-) Political risk x Cultural differences (+)	(MO) Language similarity	WOS vs. JVs	

Item	Author	Theory	Level of analysis	Antecedents	Mediator (ME)/ Moderator (MO)/ Control (CO) Variable	Dependent Variable	Are performance outcomes of export modes studied?
15	Ruer and Tong (2005)	RO, TCE	JVs	RO: Firm's core JV (+) TCE: intellectual property protection (NS) Cultural Distance (-) political turmoil risk (-)	(CO) Equity stake (-) JV experience (NS) Host market growth (-) Industry (+)	Using explicit call option in JVs	
16	Li and Rugman (2007)	RO	Last market entry	Endogenous market uncertainty (+) Exogenous market uncertainty (-)		JVs vs. WOS vs. Export/ licensing	No

TCE=Transaction Cost Theory; RO= Real Options theory; RBV= Resource Based View; IT= Institutional Theory; AT =Agency Theory; WOS= Wholly Owned Subsidiary; JV= Joint Ventures

2.5 Real options theory

A newer approach that is proving successful in managing uncertainty in the decision-making process is RO (Cuypers & Martin, 2010; Tong & Reuer, 2007). This approach has found its roots in finance, and ascertained to be a powerful tool for analyzing international business strategy including strategic foreign investments, the choice of governance modes, and management of international operations (Driouchi & Bennett, 2011; Reed & Storrud-Barnes, 2010). However, the most extensive application of real options theory in the international business literature has been to the entry mode decisions (Eden, 2009).

The entry mode investments assumed to be irreversible and maintain uncertain future rewards (Dixit & Pindyck, 1994), the conditions that increase propensity towards establishing real options. Real options logic adopts a 'dynamic' rather than a 'static' approach toward market entry decisions (Eden, 2009) in uncertain environments. Its main assumption is that 'firm-specific' investments are irreversible; so that to limit irreversible investment, integration is not the only solution to the uncertainty. In fact, entry modes should correspond to the magnitude and type of uncertainty the firm faces, and be adjustable (flexible for further change) as the state of uncertainties changes (Li, 2007; Tong & Reuer, 2007).

Since the application of this theory in international business and decision-making field is quite new, in the following sections, the distinctive features of the theory, its definition, and its underpinning assumptions are highlighted in more detail.

2.5.1 Real options definition

The term *option* – as opposed to *alternative* – is of importance in understanding the theory's origins and boundaries. An option is a right, but not an obligation, to take some future specified action at a specified cost. "At its core is a fundamental decision asymmetry to take a future decision (e.g. to invest) only if it's beneficial to the decision maker, but not otherwise" (Trigeorgis & Reuer, 2017, p. 43). The concept of real option is derived from 'financial option'. For the first time, Myers

(1977) recognised the similarities of capital investment and financial option and brought the theory of financial option to the territory of strategic management (Li, 2007). *Financial option* gives the 'option holders' the right but not the obligation to sell or buy a financial asset at exercise price during a certain period of time. Therefore, the option holders are faced with significant upside opportunities as well as downside risks (Myers, 1977). Subsequently, *real options* were seen as "opportunities to purchase real assets on possibly favorable terms" (Meyer 1977, p. 163). This argument by Myers (1977) was later developed by Bowman and Hurry (1993). They suggested that an organisation's capabilities and assets can be considered as a 'bundle of options' for future strategic choices, as a firm buys (invests in) them in the first place to possibly benefit from them in the future. "These options are called 'real options' and can be defined as contingent investment commitments in an asset or capability, rather than in a financial contract, which secure decision-making rights in the future" (Cuypers & Martin, 2010, p.49).

Different scholars have highlighted differences between real options and financial options. For example, Li (2007) clearly described that real options are based on real assets that are not tradable and managerial actions can directly influence the value of them. Moreover, the rules for exercising real options are not as clear as financial options and they do not have formal contracts. Reed and Storrud-Barnes (2010) illustrated that real options are 'firm-specific' investments that can be employed as a 'platform for future' strategic moves. These investments, which are assumed to be irreversible, include tangible and intangible investments. Moreover, unlike financial option, there is no expiration date for exercising real option, though some investments are an exception. For example, 'skill-based' assets will lose their value if they are not used or updated (Reed & Storrud-Barnes, 2010).

In the context of international entry modes, JV arrangements over the alternatives (WOS and exporting) have been viewed as offering the firm real options (Kogut, 1991; Reuer & Tong, 2005). Brouthers et al. (2008), in their study of JVs as a real option entry mode, underlined three main differences between real option and financial option. First, real option facilitates access by the investing firm to inside knowledge and information which non-investing firms cannot obtain. On the contrary,

financial option does not provide inside information about an investment opportunity and all the investors can obtain the same level knowledge about the present and future of the investment. Second, making an investment based on real options logic gives the investors 'first mover advantage' and they can make barriers to entry to other competitors who delayed their investment. Financial option, in contrast, does not limit the opportunity for future investors who want to make the same investment. Finally, learning process associated with beneficial investment opportunities would become the firm's competitive advantage, something that is not in the scope of financial option.

2.5.2 Strategic investments as real options

As noted by Li (2007, p. 70) "making an international investment creates real options when managers in multinational enterprises obtain the right but not obligation to take future actions such as expanding, contracting or abandon." There are different types of real options in the international business context. Table 2.5 provides taxonomies of real options, namely, the option to grow, abandon, switch, and defer (Trigeorgis, 1991). Examples for each option are adapted from Li's (2007) research and depicted in Table 2.5.

Table 2.5 Types of real options in international strategy

Real options type	**Example**	**Application**
Option to ***grow***	A firm that enters the market through a joint venture has the option to acquire its partner's equity to expand in the future.	Choice of market entry mode
	A firm that enters the market at an early stage has the option to expand quickly and pre-empt market entry by competitors.	Choice of market entry timing
Option to ***abandon***	A firm has the option to reduce commitment and withdraw from the market when market conditions in the foreign country are negative.	Choice of market entry mode
Option to ***switch***	A firm has the option to switch raw materials and production across subsidiaries within a multinational network contingent on exchange rate volatility.	Choice of multinational network
Option to ***defer***	A firm has the option to delay market entry facing high uncertainty in market demand.	Choice of market entry timing

A real option provides flexibility in investment decisions, as firms can react to the uncertainty by deferring to make an upfront commitment to international market (i.e. option to defer), terminate the action, (i.e. option to abandon), or grow the business further (i.e. option to grow) (Ahsan & Musteen, 2011; Bowman & Hurry, 1993).

In reality, most firms possess a portfolio of such options within and across those categories (Trigeorgis & Reuer, 2017). Li and Rugman (2007) argue that two main valuable options embedded in the foreign market entry mode are option to grow, and option to abandon. They explained companies who have a valuable option to grow would face higher growth opportunities in comparison to companies, which do not have this option. On the other hand, having the abandon option facilitates exiting the market with less cost for companies who have this high-value option. Choosing a market entry mode that gives the managers the ability to respond to uncertainty as it is revealed, and provides them with both options of growth and abandon is of interest (Wooster, Blanco, & Sawyer, 2016). International JVs and related cooperative strategies are known to offer the firm highest growth and abandon option values (Cuypers & Martin, 2010). The option holder in a JV collaboration is able to access upside opportunities (through investing or expanding the market) while limiting downside losses (by waiting in the event of adverse developments) (Trigeorgis & Reuer, 2017). The option to defer is also valuable when firms are uncertain about the future of their investment in foreign markets. Entry modes that require a minimum of investment in foreign markets have the highest defer option value. Export entry mode and licensing are examples of low-investment market entry modes for multinational firms. Using independent distributors or direct exporting from the home country are export-specific examples of channel structure with lowest investment in an uncertain foreign market with highest defer option value.

To be considered as a real option, an investment should have three characteristics: first, decision-making carried out under uncertainty about ‘future payoffs’; second, the disinvestment is expensive; third, managers are active (not passive) and flexible to change the degree of control and commitment based on the resolution of the uncertainty (Ahsan & Musteen, 2011; Li, 2007; Reed & Storrud-Barnes, 2010).

Scholars have applied real options theory to decision making under uncertainty from the two perspectives of real options reasoning, and real options modelling, as discussed in the following sections.

2.5.3 Real options reasoning

Real options reasoning (ROR) is the qualitative application of the theory helping managers recognise the value of managerial flexibility and real options. In this approach, scholars attempt to identify and build option-like managing logics. “Real options reasoning is a conceptual approach to the strategic investment that takes into account the value of preserving the right to make future choices under uncertain conditions” (McGrath & Nerkar, 2004, p.1). It is a logical tool for firms to better structure their strategic investment decisions under uncertainty (Trigeorgis & Reuer, 2017). Moreover, it inspires dynamic management of investments, flexible decision making, and allows future contingent modification (e.g. McGrath, Ferrier, & Mendelow, 2004; Trigeorgis & Reuer, 2017). Much of the strategy literature applies ROR as this strategic and intuitive way of thinking (Folta & O'Brien, 2004; Trigeorgis, 1991).

2.5.4 Real options modelling

Real option modelling (ROM), which can be found mostly in finance and economics literature, focuses on real options valuation and uses formal mathematical models or simulation to value options (Trigeorgis & Reuer, 2017). This approach is a quantitative analysis of investment decisions (Buckley & Casson, 1998; Li, 2007). Modelling of real options offers more specificity and transparency on the theory’s key assumptions (which are often left implicit or unspecified in ROR). Nevertheless, real option valuation models can sometimes lack the practical relevance and organisational realities that are of interest to strategic management scholars and practising firms (Trigeorgis & Reuer, 2017).

2.5.5 Real options and uncertainty

Options are desirable because of environment uncertainty (Reed & Storrud-Barnes, 2010). Uncertainty makes a firm unclear about what is the best action for creating value on the road ahead. It is associated with both upside opportunities in an investment and downside risk of losing resources and assets (Brouthers et al., 2008). Cuypres and Martin (2010) noted that real option is a connection between a current strategic decision and uncertainty about future outcomes.

The difference among different market entry investments lies in their ability to obtain information and reduce uncertainty, contingent on the uncertainty type (Li & Rugman, 2007). Different types of uncertainty have been highlighted by scholars to affect the entry decision, such as uncertainty on investment, demand, market, culture, and technology. Nevertheless, based on the ability of the firm to resolve or manipulate the sources of uncertainty, RO theory has offered a more comprehensive view of uncertainty by categorising them into endogenous and exogenous uncertainty (Ahsan & Musteen, 2011; Cuypers & Martin, 2010; Folta, 1998; Li, 2007). While both types of uncertainty increase the economic value of real options, they affect entry mode investment decisions differently (Li, 2008; Pindyck, 1993).

2.5.5.1 Exogenous uncertainty and investment options

Exogenous uncertainty is the uncertainty associated with the firm's external environment and economic activities, which cannot be controlled by the firm activities and are determined by external entities (Ahsan & Musteen, 2011; Li, 2008). They are not learnable and, more importantly, their reduction is independent on the firm action and only becomes clear over time (Dixit & Pindyck, 1994). Facing this type of uncertainty, firms are advised to take a "wait and see strategy" rather than committing large investments up front (despite the desire justified by TCE to increase control through a higher degree of integration). In the 'wait and see' situation, managers initially defer investment and later make an investment, abandon the investment, or continue to wait (Ipsmiller, Brouthers, & Dikova, 2017).

Thus, the real options theory of investment advocates that due to the irreversibility of investment, when a firm experiences exogenous uncertainty, holding an 'option to invest' (i.e. option to defer) can be more economically valuable than 'immediate investment' (Li, 2008). This option offers managers the flexibility to 'defer' the investment decision until additional information is revealed (Dixit & Pindyck, 1994; Li, 2007; McDonald & Siegel, 1986; Tong & Reuer, 2007; Trigeorgis, 1991).

Investment and demand uncertainties are exogenous uncertainties, both of which can be affected by the economic, political, or financial instability in the host-country where a firm invests, and has no control over them (Wooster et al., 2016).

Investment uncertainty

Investment uncertainty, or external uncertainty in TCE language (see section 2.4.3), is the extent to which a country's political, legal, and economic environment threatens the stability of a business operation (Gatignon & Anderson, 1988). In fact, it is an aggregate concept based on the range of factors that can make a country risky or 'safe' for investment (Brouthers & Brouthers, 2003; Gatignon & Anderson, 1988). In the view of real options theory, investment uncertainty is exogenous in nature as its resolution is outside the control of the firm (Cuypers & Martin, 2010). In order to eliminate this uncertainty, firms do not need to initiate investment in the host country. The information revealed by the resolution of exogenous uncertainty is a 'free good' available to all, that increases the value of waiting to initiate investment (Folta, 1998).

This 'wait and see' strategy or 'option to defer' is the most valuable option for a firm facing investment uncertainty when deciding to invest to enter an export market. It conveys that firms delay direct investment in the uncertain host country and enter the market by using independent distributors, or directly manage selling from the home country, to avoid substantial sunk cost involved in higher investment entry modes (Folta, 1998). This option gives the firm flexibility to leave the market if uncertainty does not turn out in their favour. At the same time, it provides a toehold in the market for the firm, so that they can expand the business in the host country

(e.g. establishing JVs, or a sale subsidiary) if the uncertainty is resolved or if they learn about the market (Ahsan & Musteen, 2011; Trigeorgis & Reuer, 2017).

Demand uncertainty

Demand uncertainty is defined by Taylor et al. (1998, p.394) as “the extent to which future sales of a firm's products or services in the host country are difficult to predict”. Demand uncertainty is another type of exogenous uncertainty that also originates from economic, political, or financial instability in the host-country where a firm invests (Dixit & Pindyck, 1994; McDonald & Siegel, 1986; Trigeorgis & Reuer, 2017; Wooster et al., 2016). This uncertainty is largely unaffected by firm action, but becomes clearer over time (Folta, 1998; Chi, 2000). Ipsmiller et al. (2017) accentuated the importance of demand uncertainty as a type of exogenous uncertainty. They declared “exogenous uncertainties reside in the external environment and often involve issues to do with future demand for products” (Ipsmiller et al., 2017, p.3). Harrigan (1983) maintains that firms are not willing to make the high level of investment required by a high control entry mode under conditions of uncertain demand, instead preferring to maintain a level of strategic flexibility (Taylor et al., 1998).

With the presence of demand uncertainty, firms are unsure about the viability of large investment in the host market (Brouthers & Dikova, 2010). Therefore, in order to benefit from possible future expansion, they start the business without entering the market with high investment commitments (e.g. using independent distributors). Holding an option to defer, they can gain remote access to the market and assess the market demand (Kogut, 1991), while deferring further investment until more information is obtained and uncertainty is reduced, Brouthers and Divoka (2010) find support for this contention.

2.5.5.2 Endogenous uncertainty and investment options

Endogenous uncertainty is different from exogenous uncertainty. Specifically, endogenous uncertainties can be reduced or omitted by the firm’s action and its learning process through investment in information and knowledge over time (Folta, 1998). For example, cultural uncertainty that a firm may face in its markets can be

gradually reduced by the firm's actions and dealing with local channel members (Ahsan & Musteen, 2011; Hofstede, 2001). As explained, the uncertainty about the organisational structure in a foreign country can be solved if the firm makes a 'systematic' effort to find information about the unknown issue and undertake action according to its findings. Folta (1998) emphasises both the firm action and its learning capabilities for resolving endogenous uncertainty.

Facing endogenous uncertainty, firms should develop the capability to manage host country endogenous uncertainty by 'Learning by doing', i.e. having a presence (investing) in foreign markets. This capability evolves over time, is largely tacit in nature, and can become a source of competitive advantage and so potentially enhance performance. As Adner and Lavintin (2004) noted, the applicability of real options logic moves from the world of "wait and see" to the world of "act and see" in which uncertainty resolution is endogenous to firm activity.

In the broader international business literature, collaborative entry modes such as joint ventures or strategic alliances are recognised to be the best entry strategy for firms to reduce endogenous uncertainty by incremental investment in learning (e.g. Ahsan & Musteen, 2011; Brouthers et al., 2008; Cuypers & Martin, 2010; Folta, 1998; Kogut, 1991). They provide the firm with both the option to grow (when uncertainty resolved favourably) and the option to abandon (in the event of negative information) and make the firm flexible in reacting to endogenous uncertainty (Li & Rugman, 2007). Limited investment in the host country partnerships (e.g. JVs, using agents, strategic alliance) could provide the firm with access to knowledge about the endogenous uncertainties (Dixit & Pindyck, 1994; Ipsmiller et al., 2017).

There are examples of endogenous uncertainty in the literature including cultural uncertainty, technological uncertainty, uncertainty about development capabilities, and scope-related uncertainty. However, cultural uncertainties and technological uncertainties are the most debated uncertainties should a firm decide to expand its boundaries abroad.

Cultural uncertainty

When entering a new market, firms could be faced with the unpredictability of cultural factors (e.g. customs, practices, and norms), as the environment might be different from the home country (Cuypers & Martin, 2010). The lack of local knowledge can adversely affect the investment outcome. Local presence enables a foreign investor to better assess its own personnel and the organisation should interface with cultural differences and uncertainties in the market. As Hofstede (2001) highlighted, the success of the foreign venture (or firm) will depend on cooperation and communication with local parties who tend to have different values, beliefs and customs (Cuypers & Martin, 2010).

As the uncertainty about the culture of the host market increases, uncertainty between the parties of a collaborative activity (e.g. JVs) might also increase. Putting the TCE hat on, facing a culturally uncertain environment, firms might benefit from being locally present while fully integrated in their operation to protect their firm's interests against potential partner opportunism. Nevertheless, to mitigate this uncertainty through real option lenses, firms have been advised to avoid high levels of ownership and investment (Sanchez-Peinado et al., 2007), and retain flexibility in adjusting their investment (Ipsmiller et al., 2017) until the uncertainty is resolved. Firms are instructed to collaborate with local firms and invest in partnerships to incrementally gain knowledge about the host country culture, and being able to make better-informed decisions in future without incurring a largely irreversible investment (Ahsan & Musteen, 2011).

Cultural uncertainty is a learnable uncertainty if firms proactively seek locally-based assets, and solicit the participation of local partners (Anderson & Gatignon, 1986; Hennart, 1991; Sanchez-Peinado et al., 2007). If an appropriate entry mode is chosen, one with both valuable option to grow and option to abandon, cultural uncertainty could be viewed as having upside benefit (i.e. firm-specific learning) and being a source of competitive advantage (Ahsan & Musteen, 2011). Firms with collaborative local investments (e.g. joint-investment entry modes) are able to make informed adjustments to their investment upon receiving information. The learning

process also enables the firm to regulate the behaviour of the foreign firm (e.g. business partner) which influences the outcomes of their shared business and thereby the value of the asset underlying the investment. Acquiring knowledge through “learning by doing”, the firm can decide how far to invest in further learning and subsequently how to act proactively (Black & Mendenhall, 1990).

Although operating in a market with a high culturally uncertain environment through high commitment and investment mode could also provide the option to grow for the firm (i.e. the local presence enable firm to learn their environment), the risk of investment irreversibility is high and could affect the performance and profitability of the firm due to the high cost of investment and ownership. In other words, with high commitment investment, the value of option to abandon is extremely low.

Collaborative partnership and alliances (e.g. collaborative JVs, strategic alliances, and agent) in the foreign market enable firms to limit irreversible investment. At the same time bothoptions of grow and abandon are highly valuable in theses market settings.

Technological uncertainty

Broadly defined by Burgleman et al. (1996), technology is theoretical and practical knowledge, skills, and artefacts that can be used to develop products and services as well as their production and delivery systems (Song & Montoya-Weiss, 2001). Technological uncertainty refers to an individual's inability to accurately predict or completely understand some aspect of the technological environment (Downey, Don Hellriegel, & Slocum, 1975).

Most real options research has focused on how technological uncertainty affects governance decisions and entry mode choices (Crook et al., 2013). For instance, Folta (1998) considers technological uncertainty as an industry level factor that is only presented in industries undergoing technological changes. He suggests that when facing technological uncertainty, collaborations provide an *option to defer* internal development or acquisition of a target firm or venture, and at the same time a mechanism to capitalise on *growth* opportunities. In fact, by deferring the high

commitment investment (and internalisation of activities), the firm can limit its exposure to buying a technology that might have limited value in the future (i.e. due to the uncertain nature of the technology (Folta, 1998). The collaborative entry modes could grant management the flexibility to adapt its future actions as new information about the technology is revealed. Thus, joint ventures and minority investments economise on the cost associated with commitment.

Uncertainty about the future shape of technologies in the industry is endogenous and learnable. Technological uncertainty could be highly unpredictable, for example when the industry is experiencing some stages of an evolution (Oriani & Sobrero, 2008) or if the industry is characterised as a fast evolving industry (Sabet, Yazdani, De Leeuw 2016). In these circumstances, since the future return on investments is unknown to the firm, a toehold investment in the market would enable the firm not to miss the first-mover advantage and follow-up opportunities in the market if the uncertainty turns in their favour, while avoiding irreversible investment.

As mentioned by Vernon (1966) and echoed by Jiang et al. (2008, p. 566) “technological uncertainties arise not only from global technological changes but also from specific changes in a particular individual foreign market where those changes may not synchronize with the global changes because of market-specific situations”. This uncertainty is also endogenous in nature and can be diminished by the firm’s actions and learning capabilities (Chi, 2000; Folta, 1998; Roberts & Weitzman, 1981). Collaborative and joint investment in the market allows firms to gain additional information about the market and allows partners to both share the risk and enjoy learning advantage over the competitors in the same industry (Dixit & Pindyck, 1994; McGrath et al., 2004; Miller & Folta, 2002).

From the TCE perspective, on the other hand, inability to predict future technological development creates problems in writing contracts because these contracts are incomplete in some major aspects (Brettel, Engelen, & Müller, 2010; John & Weitz, 1988). High level of technological uncertainty necessitates the need for complex contracts between the collaborative parties involved in order to consider any possible contingency. Adjustment of the contracts increases transaction costs, thus

the internalised governance structure is suggested to avoid the undesired result. Moreover, because of the threat of opportunism, firms are less interested in a collaborative relationship, where new technological knowledge is developing regularly and needs to be protected (Brettel, Engelen, & Müller, 2010). As a result, from TCE perspective, setting up high ownership structures, while costly, may address these major issues for firms facing high technological uncertain environments.

2.5.5.3 Irreversibility of investment

Irreversibility of a firm's investment in its market serves as a key determinant of the choice between different entry modes (Wooster et al., 2016). Irreversibility refers to the degree of opportunity costs when investments are sunk (Folta & O'Brien, 2004; Folta, Johnson, & O'Brien, 2006; Jiang et al., 2008). In the entry mode concept, irreversibility stresses the fact that "the fixed costs of establishing subsidiaries, learning the market, hiring labour, or training agents are already sunk, i.e. they cannot be sold on secondary markets" (Gilroy & Lukas, 2006, p.449) or recoupable without incurring cost (Wooster et al., 2016).

Similar to the notion of asset specificity in the TCE perspective, investment irreversibility is a key variable in real options frameworks. Asset specificity and investment irreversibility have been used interchangeably in the entry mode literature (König, 2009). However, they lead to different entry mode outcomes, as they rely on different theoretical rationalities (Wooster et al., 2016). With regards to asset specificity in TCE theory, the emphasis is that specific assets could create a possibility of free riding and opportunistic behaviour from potential foreign partners, thus, they must be protected through internalisation and the ownership mechanism (see section 2.4.1). From the real options approach, however, the presence of firm-specific irreversible investment can increase the value of a ''wait and see'' strategy (Wooster et al., 2016). In effect, the value of waiting hinges on how irreversible the market entry decision is (Trigeorgis & Reuer, 2017). Degree of irreversibility is the highest when firms highly and solely invest to enter foreign markets (e.g. through FDI, or establishing sales subsidiaries, or train firm's reps for a specific market),

because such investment expenditures cannot be recovered due to the low salvage value of the assets (Wooster et al., 2016).

When investments are irreversible, or partially irreversible, and the future value of an investment is uncertain, deferral options have the highest value amongst other options (Brouthers et al., 2008; Leiblein, 2003). Market entries with lowest investment in the foreign market (specifically in the early stages) provide an option to defer. At the same time, this investment works as a platform for firms to exercise growth options in later stages of internationalisation (Li & Rugman, 2007).

From the real options perspective, entry decision is a dynamic trade-off between commitment (making an irreversible or specific investment), and flexibility (being able to change the degree of investment with the least irreversible cost) (Li & Li, 2010; Smit & Trigeorgis, 2007). The proper management of the balance between commitment and flexibility can guarantee firm success in the market.

2.5.6 Summary notes on RO and export entry mode

Entry modes are, in effect, international investments (Li 2007). Making investment under uncertain environments could create real options, if the managers are responsive to the dynamics of uncertainties (Li & Li, 2010). In fact, option investment gives managers the flexibility to take further action (e.g. deferring, expanding, or abandoning) and increases commitment or to control losses according to the resolution of uncertainty in the business environment (Dixit & Pindyck, 1994; Kogut, 1991; Kogut, 1991; Li & Li, 2010; Trigeorgis, 2002). It enables managers to respond to future changes more quickly and smoothly, constantly reconfiguring their resources (Kogut & Kulatilaka, 2001), thus is considered key to firms' international competitiveness under uncertainty (Buckley & Casson, 1998). As defined by Kogut and Kulatilaka (1994), real options investments are potential platforms for organisational learning as such firms can develop new capabilities, create value and sustain competitive advantage (Driouchi & Bennett, 2011).

The practical mechanism for considering entry mode selection consistent with real options investment is to first recognise the type and amount of the uncertainty the

firm faces in its markets. Secondly, an option investment should be chosen that gives the firm highest option value. As such, if the firm faces a high amount of exogenous uncertainty, the deferral options are valuable to limit irreversible investment. For instance, if the firm faces high investment uncertainty (exogenous uncertainty), an entry mode that provides the firm with the highest defer option value is an entry mode which requires little or no investment in the foreign market. In the export-marketing context, firms that directly export their products to the foreign market from their home countries, or using independent distributors in the foreign market to export their products, could benefit from the highest value of defer option.

On the other hand, a firm could face endogenous uncertainty in its market (e.g. cultural uncertainty). Since endogenous uncertainty is learnable, firms are advised to enter their markets with an investment option that facilitates learning and growth, as well as abandoning the market (in case uncertainty did not resolve in their favour). Using agents, JVs and collaborative exporting are entry modes that provide the firm with both option to grow and abandon.

It is argued by Li and Rugman (2007) that, intuitively, firms are capable of catching up with growth when the market is certain and predictable. However, it is in response to uncertainty that a firm with the highest amount of investment in their entry modes faces more constraints because they devote more irreversible investments thus face more obstacles to withdraw from the market.

In other words, the option to grow is important, but not all the entry modes differ significantly in their capability of taking advantage of growth opportunities (Li and Rugman, 2007). When uncertainty increases, the option to defer and abandon becomes important as well (depending on the type of uncertainty). Thus, sales subsidiary or WOS provides much less value in the option to defer than direct exporting or a JV and therefore becomes less desirable for the firm.

2.6 Entry mode and its performance implications

As explained in section 2.2.3, regardless of the applied theoretical perspective, the relationship between export entry mode and performance in the export specific literature is mostly neglected to be studied. However, within the international marketing literature (see table 2.4, section 2.4.5), examining the performance consequences of entry mode decisions is more evident.

In this respect, a considerable number of researchers (e.g. Aulakh & Kotabe, 1997; Brouthers et al., 2008; Brouthers, 2002; Brouthers et al., 2003; Fernández-Olmos & Díez-Vial, 2015; Shaver, 1998) defined the performance as a 'fit variable'. They compared the performance of "firms using theoretically predicted modes vs. those using other modes" (Brouthers & Hennart, 2007, p. 413). The reasoning is that there is no direct linkage between a specific entry mode and its performance. In fact, degree of control of the foreign operation does not, by itself, guarantee superior performance. If the most efficient direct relationship could be ruled out, all the firms in the same industry could choose the same mode of entry to achieve maximum performance (Brouthers & Hennart, 2007). Arguing the matter in the export specific context, Aulakh and Kotabe (1997, p. 155) maintained that "since the different levels of channel integration are all appropriate channel choices and each achieves a certain objective of the firm, the use of a given level of channel integration, in and of itself, will not explain channel performance". They introduced a contingency model to illustrate the performance implication of the entry mode choice. They argued that "neither the level of channel integration nor the contextual internal and external factors alone are predictors of channel performance in the foreign market. Rather, the channel integration must be matched to the [theoretical] variables and this fit is the critical determinant of channel performance" (Aulakh & Kotabe 1997, p. 155). In the same vein, Shaver (1998) suggests "theoretically predicted mode" needs to be taken in account when a researcher investigates the performance implications of the entry mode choice.

Other scholars, such as Brouthers (2002) and Brouthers et al. (2003), also examined the performance implications of mode choice according to transaction cost theory and institutional theory. Brouthers et al. (2003) observed that firms using a mode

predicted by these theories performed significantly better statistically than firms using other 'misaligned' modes. Brouthers et al. (2008) proposed that firms choosing their international entry mode based on consideration of both TCE and RO approaches would outperform firms that do not. They explained that this model considers the 'cost efficiencies' and 'value enhancements' at the same time and delivers the best optimized performance. Moreover, in their study, Brettel et al. (2010) measured the deviation of the firm's entry mode from the entry mode that predicted by the theory and proposed that firms with more deviation would underperform firms with lower deviation.

Given the importance of the fit variable in predicting performance, more detail on the concept of fit is provided in the next section.

2.6.1 Concept of fit

Fit, which is also termed coalignment, consistency, contingency, or congruency, has been a central concept in organisational research (1990). The fundamental logic underneath fit is that organisational performance is a consequence between its strategy, environment, structure, and resources (Van de Ven & Drazin, 1985). Thus, "a reasonable well-accepted proposition is that strategic coalignment (*i.e.* a match among a set of theoretically-related dimensions) has significant impact on performance" (Venkatraman, 1990, p.21). Venkatraman (1990) recognises six different perspectives of strategic fit: moderation, mediation, matching, gestalts, profile deviation, and covariation. These perspectives originate from two dominant approaches to the conceptualisations of fit, namely, reductionistic and holistic approaches. Accordingly, fit as matching, moderation, and mediation can be categorised into the reductionistic perspective, whereas fit as gestalts, covariation, and profile deviation can be regarded as the holistic perspective (Venkatraman & Prescott, 1990). The difference between these two perspectives is summarised in Table 2.6.

Table 2.6 A comparison of the reductionistic and holistic perspectives of coalignment (Venkatraman, 1989; Venkatraman & Prescott, 1990).

Characteristics	Reductionistic perspective	Holistic perspective
Dominant approach to the specification of fit	Fit between a few characteristics of environment and strategy	A broader conceptualisation of coalignment between several characteristics of strategy and several characteristics of environment
Strength	Ability to isolate precisely specified theoretical links, and impacts; systematic replication and extensions could lead to cumulative knowledge.	Ability to retain the complex, interrelated nature of linkage; system view is maintained.
Weaknesses	Specification error due to invoking *ceteris paribus condition;* inability to isolate conflicting contingencies	Complex nature of coalignment makes it difficult to hypothesise the nature of coalignment; difficulty of generalisation.
Common analytical methods	Multiple regression analysis with interaction terms; ANOVA; sub group analysis; deviation score analysis; the residual analysis	Cluster analysis; pattern analysis (i.e. profile deviation); canonical correlation analysis; second-order factor analysis.

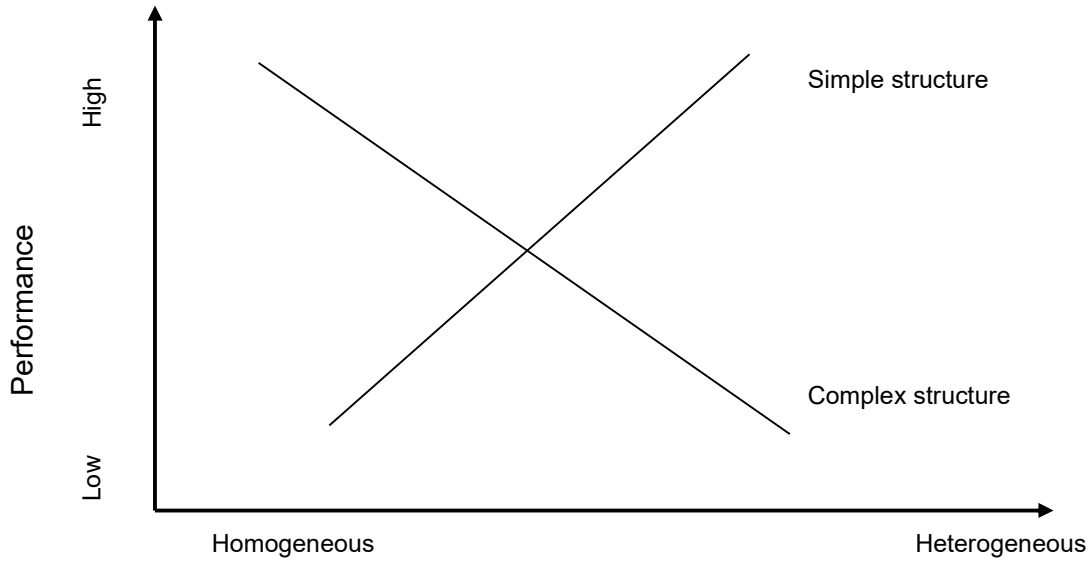
Although different ways of modelling the impact of fit between environment/context and strategy on performance are available to the researcher, the foremost approaches considered by international marketing scholars are mainly fit as either moderation (e.g. Boso, Cadogan, & Story, 2012; Hultman, Katsikeas, & Robson, 2011; Schilke, Reimann, & Thomas, 2009; Xu, Cavusgil, & White, 2006) or matching (e.g. Hultman, Robson, & Katsikeas, 2009; Katsikeas et al., 2006; Zeriti, Robson, Spyropoulou, & Leonidou, 2014). These two approaches are both from the reductionistic perspective, theoretically strong, and with fairly established analytical techniques. However, they have different implications that are discussed as follows (for a detailed discussion on different perspectives and approaches to fit, see Venkatraman (1989)).

2.6.1.1 Fit as moderation

According to the moderation (also called interaction) perspective, the impact that a predictor variable has on a criterion variable is dependent on the level of a third variable, termed here the moderator (Venkatraman, 1989). In fact, the fit between the predictor and the moderator is the primary determinant of the criterion variable (Venkatraman, 1989). Thus, the focus is more on explaining variations in organisational performance from the interaction of organisational structure and context, and not necessary on understanding the correspondence between context and structure (Drazin & Van de Ven, 1985).

A graphical example illustrated in Figure 2.3 is adapted from Drazin and Van De Ven (1985) to present a typical interaction hypothesis of environmental heterogeneity and structural complexity on organisational performance. In this example, when the structure of an organisation is simple, heterogeneity of environments leads to high level of performance. However, when the structure is complex, environmental heterogeneity leads to low level of performance.

Figure 2.3 Example of typical interaction hypothesis of environmental heterogeneity and structural complexity on performance.



In other words, the moderation approach reflects the catalyst effect of accelerating or decelerating a relationship (Drazin & Van de Ven, 1985).

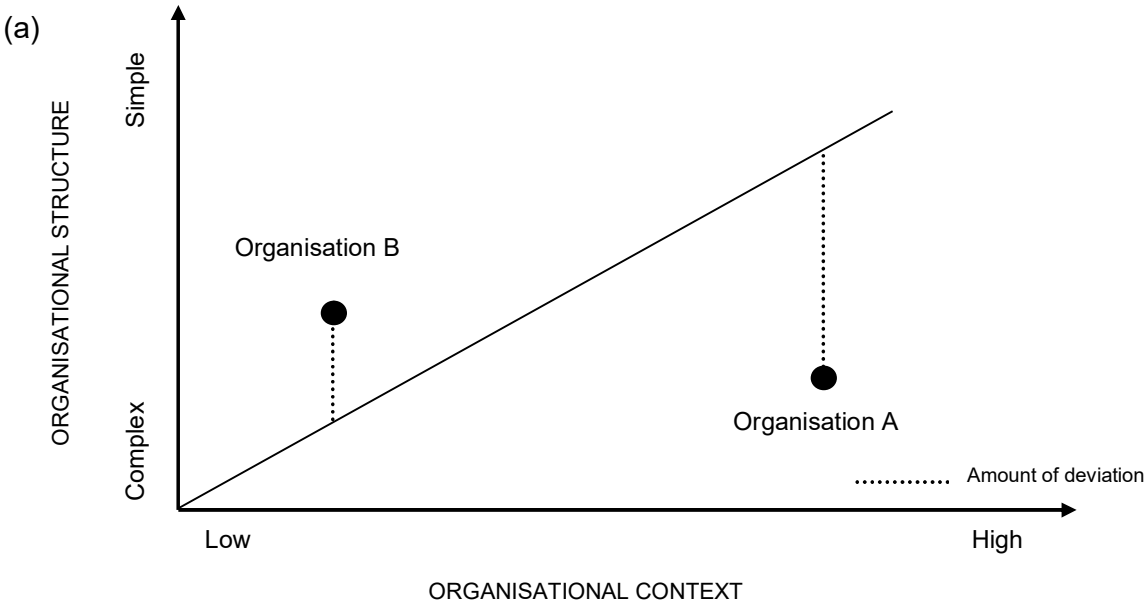
To statistically analyse and operationalise this type of fit, the interaction terms using the multiplicative interaction approach are utilised by scholars (Ping, 1995). As such, this approach computes a moderating effect by multiplying the strategy and context variables. To avoid the risk of multicollinearity related to interactive terms, researchers often use orthoginalised interaction terms (see Little, Bovaird, and Widaman (2006)).

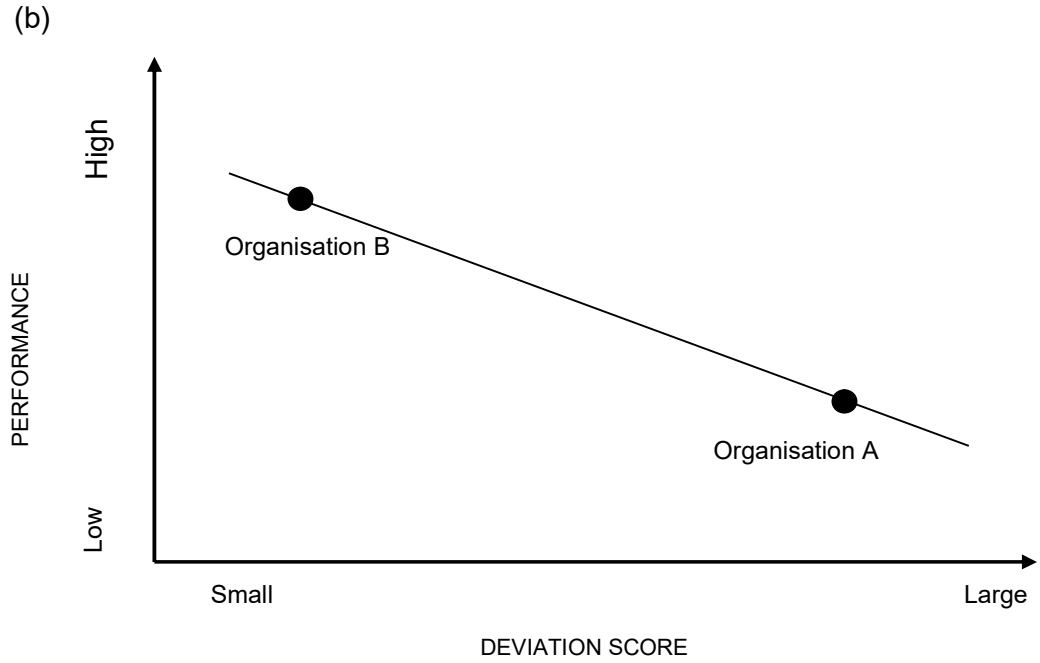
2.6.1.2 Fit as matching

This perspective is appealing to researchers developing a strategic concept in which fit is theoretically defined as a match between two related variables (Venkatraman, 1989). As such, fit is denoted "without reference to a criterion variable, although, subsequently, its effect on a set of criterion variables could be examined" (Venkatraman, 1989, p.430). Being different from fit as moderation, in this approach, a measure of fit between two variables is calculated independent of any performance implications. To analyse the fit, rather than calculating the classical interaction terms, "the impact of deviations in structure from an ideal context-structure model is investigated" (Drazin & Van de Ven, 1985). While fit is defined as adherence to a linear relationship between dimensions of context and structure, a lack of fit results from a deviation from that relationship (Drazin & Van de Ven, 1985).

Figure 2.4a and b illustrates the assessment of matching fit analysis. In this example, adapted from Drazin & Van de Ven (1985), organisation A is more distanced from the ideal linear context-structure relationship than organisation B (see Figure 2.4a). Thus, organisation B is expected to have lower performance than organisation A (see Figure 2.4b). In this method, unlike the interaction terms, a measure of structural fit is produced that is theoretically independent of either structure or performance (Powell, 1992).

Figure 2.4 (a) Deviation of Organisation A and B from context structure relationship; (b) Expected relationship between deviation scores (absolute values) and performance





To statistically analyse and operationalise this type of fit, the deviation score or residual analysis has been used by scholars (Dewar & Werbel, 1979; Fry & Slocum, 1984; Hultman et al., 2009; Katsikeas et al., 2006; Zajac, Kraatz, & Bresser, 2000; Zeriti et al., 2014).

As such, a two-step procedure is suggested to analyse the fit. First, residuals are to be calculated by regressing the contexts on the strategy variable. These residuals are the distance from the best-fitting least-squares lines and their absolute values are to be used as deviation scores. In the second step, these calculated misfit (misalignment) variables are to be regressed on the performance. For high performing firms, it is expected that the relationship between misfit and performance will be significant and negative (the greater the deviation, the lower the performance) (Drazin & Van de Ven, 1985).

As explained by Drazin and Van de Ven (1985, p.519), “this approach is consistent with an interaction approach; that is, only certain designs are expected to give high performance in a given context, and departures from such designs are expected to result in lower performance”. However, they are quite different statistically as discussed. In the moderating approach, the operationalisation and examination of fit is anchored to a particular criterion variable (e.g. performance), while in matching settings fit is adopted as a criterion-free specification (Venkatraman, 1989). Moreover, fit as interaction is limited “in attaching theoretical meanings to the interaction terms, especially multiple sets of interactions” (Venkatraman, 1989, p.428), so that this set of individual interaction terms may not adequately represent the nature of collective interaction (Van de Ven & Drazin, 1985). In the matching approach, however, “fit is a theoretically defined match between several variables, unlike moderation’s usual focus on joint effects of pairs of variables on performance” (Zeriti et al., 2014).

2.6.2 Do theoretically driven export modes pay off?

As stated earlier, performance fit examinations are largely developed for multinationals entry modes rather than for export channel strategies. In fact, only Aulakh and Kotabeh (1997) and Fernández-Olmos and Díez-Vial (2015) investigated export channel integration performance fit based on the two theories of TCE and resource based view.

The TCE argument is that in facing higher level of uncertainty (internal and external) and asset specificity, companies which are using internalised entry modes and exert more control over their marketing activities are affecting the financial bottom line profit in a more strongly positive direction (Brouthers et al., 2008). It is believed that instead of putting costly safeguards in place, including complicated contracts with external partners and monitoring systems, higher control through ownership and internalisation enables firms to exploit ownership advantages and such firms are expected to earn above average returns (Cadeaux & Ng, 2012).

Thus, as Leiblein (2003, p. 955) sated, “TCE presumes that firms whose transactions are inappropriately aligned will suffer adverse performance consequences and eventually fail”.

Competing with traditional TCE internalisation recommendations, real options theory challenges some of the hidden assumptions in profit enhancement benefit of the TCE theory. It recognizes that investment decisions are in many cases not reversible (Dixit & Pindyck, 1994). This entails that the downside risk potential of investments (internalised modes) could be greater than TCE assumes. Moreover, it maintains that investments do not have to be made immediately (the delay in investment is not a loss) (Dixit & Pindyck, 1994).

Instead of establishing the control mechanism to avoid failure, RO reasoning suggests that “the key issue is not avoiding failure but managing the cost of failure by limiting exposure to the downside while preserving access to attractive opportunities and maximising gains” (McGrath, 1999, p. 16). A real options investment provides an opportunity to postpone the majority of the resource commitment until enough market knowledge is gained. This way firms are able to select an investment mode that provides a more favourable outcome (Brouthers et

al., 2008; Capel, 1992; Driouchi & Bennett, 2012; McGrath & Nerkar, 2004). It suggests that the real options approach can provide value to the firm through flexibility and giving it a preferential option to future resource commitments while providing no obligation (Chi, 2000; Folta, 1998; Sanchez, 1995).

Thus, moving beyond TCE, and taking into account the irreversibility, delay ability, and uncertainty of investments, it is posited that real option based decisions may provide superior performance compared to more traditional decision-making models based on TCE (Brouthers et al., 2008).

2.7 Chapter summary

Emphasising the significant role of exporting in the firm's growth and survival, the importance of revealing export performance determinants was highlighted. As such, the export performance literature was reviewed. As a result of this review, first, it was recognised that export performance studies are mostly conducted at the venture level. Discussing the disadvantage of venture level success studies, this study posited the success studies to be more appropriately conducted at the export firm level. Second, in terms of the determinants of export performance, The role roll of export entry decisions was revealed to be rarely studied. Given the importance of entry mode decisions as one of the main export marketing strategies, it was recognised that a clear void in the export literature is the relationship between export entry mode decisions and export performance, and it needs addressing.

Hence, based on the identified gap, the rest of the chapter provided a concise review of the export entry mode, its determinants and performance consequences.

In searching for a unified taxonomy for referring to a specific export entry mode, the literature was synthesised and classified. Furthermore, to address the antecedents of different export entry modes, two theories – TCE and RO – were studied. These two theories were chosen for two reasons. First, both theories emphasise the principle roll of specific assets investments and uncertainty in determining the export entry modes. Second, the aim was to re-examine the established theory of TCE, and introduce RO theory, new to the field, by referring to inefficiencies in TCE. As perfectly summed up by Ahsan and Musteen (2011), and De Villa et al. (2015), and

illustrated in Table 2.7, TCE and RO theories are different in terms of their assumptions, strategic focus, and their view on uncertainty with regards to market entry mode. What makes the real option framework attractive to scholars is its different perspective towards handling uncertainty and its focus on (option) value creation rather than the cost minimisation advocated in TCE (Foss & Roemer, 2010; Kogut & Kulatilaka, 2001; Li & Rugman, 2007; Rese & Roemer, 2004).

Table 2.7 Comparison of the TCE and RO theories (adapted from Ahsan & Musteen, 2011; Deviella et al., 2015)

	TCE	**RO**
Assumptions	Bounded rationality and opportunism	Investment irreversibility and follow-on opportunities
Strategic focus	Control	Learning and flexibility
Uncertainty type	Behavioural	Endogenous and exogenous
Uncertainty perspective	Emphasizes the downsides of uncertainty (e.g. hold-up problems)	Emphasizes the upsides of uncertainty (e.g. potential for high profits).
Entry mode strategies	Develop governance structures to minimise uncertainty. That is, in high uncertainty conditions international firms should internalise their activities	Develop governance structures, which manage uncertainty and lead to competitive advantage. That is, in high uncertainty conditions firms should limit upfront commitments.
Decision criteria	Transaction cost minimisation	Value of option
Major themes	Follows a cost efficiency rational	Argues entry modes implies different values

Finally, to investigate the performance outcomes of the export entry modes, it is reasoned that there is no direct linkage between specific entry mode and its performance. Instead, scholars advocate a 'fit variable' to be the best measure of performance. As such, entry mode choices must be matched to the theoretical variables and this fit is the critical determinant of export performance.

In the next chapter, a conceptual model is presented to address the gaps that have been clearly identified in chapter one, and the current chapter.

Chapter 3: Conceptual Development

3.1 Introduction

In this chapter, an export-specific model is conceptualised to address the study research questions and investigate the relationship between export mode portfolio, its antecedents and export firm performance. The baselines for the proposed model of the study are two distinct theories of transaction cost economics and real options, where each theory emphasises specific core antecedents and entails different logic in viewing entry mode portfolios of the firm. Based on their underpinning assumptions, the contribution of each theory's core variables to a specific entry mode portfolio are discussed and conceptualised. Subsequently, a set of formal hypotheses is put forward regarding the antecedents of export entry portfolios and its impact on export profit performance. The purpose of examining performance is to compare the success of the firms making their entry mode portfolios predicted by the real options theory to those structuring their portfolio according to transaction cost model. The conceptual framework resulting from the hypotheses is shown in Figure 3.1.

This chapter is organised as follows. First, the unit of analysis selected for this study is justified. As discussed in chapter two, the preferred unit of analysis for the export performance assessment is export firm level. As such, in order to avoid methodological issues, all the variables are conceptualised, and all the relationships are hypothesised at the export firm level. Subsequently, in the second section, the export mode portfolio is conceptualised as a firm level variable. So, based on different theoretical frameworks of TCE and RO, a set of different export mode portfolio variables are defined as independent variables of the study. Moving to the next sections, the conceptual model of study (see Figure 3.1), is divided into three sub-models (one TCE model, and two RO models), where only the dependent variables are different in each model. Uncertainty and specific investments are core variables in both TCE and real options frameworks, but leading to different hypotheses predicting the export mode portfolio according to the logic of the approach. Control variables of the model are discussed in a separate section. Finally, performance implications of different export mode portfolios are

hypothesised. Using fit variable concept underpinned by contingency theory, the performance outcomes of TCE model and RO models are hypothesised and compared, and presented in a separate sub-model. This chapter concludes by presenting a chapter summary.

3.2 Unit of analysis

The ultimate aim for each export company is to be successful and meet its profitability goals. Thus, the success of the entire export firm including its whole venture as opposed to a single venture level is of interest in this study. As a result of the relevant literature review (see chapter two), it was identified that the current gap in the literature is a lack of a firm-level study to examine how aggregated firm-level export entry mode decisions could shape the export performance of the firm.

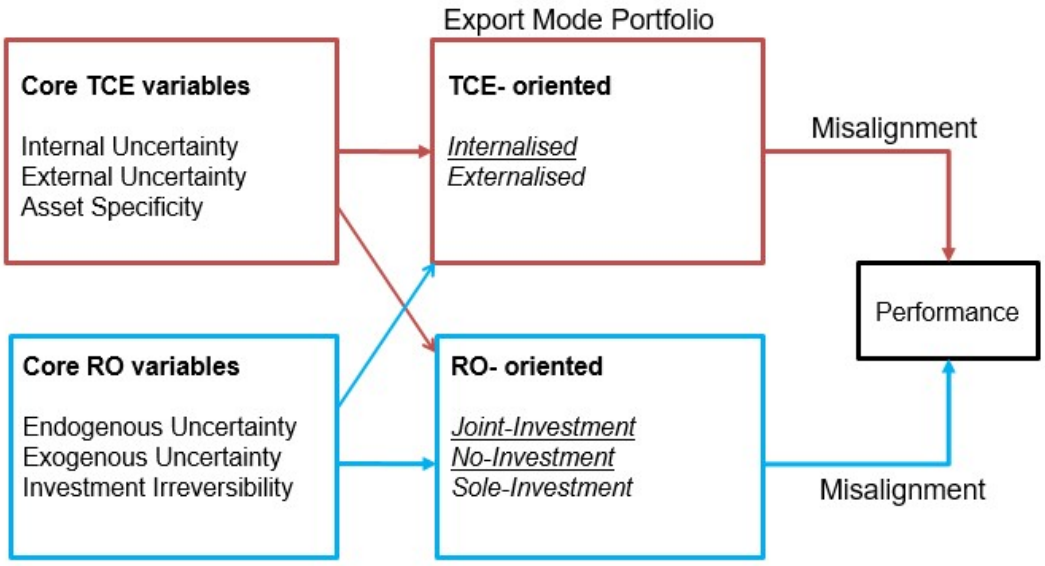
Firms are faced with specific entry mode choices for each individual market-product (venture) they enter. However, the fact is that these individual entries are interrelated with the firm's previous or parallel market entry decisions; thus, their performance consequences are not independent of each other. Having emphasised the importance of the firm-level performance, conceptualisation, operationalisation, and measurement of the export performance construct and its determinants must be addressed.

To avoid chances of incorrectly rejecting/failing to reject a hypothesis, the researcher must make sure that there is "a correspondence between the measurements and the concepts that the measurements are intended to represent" (Bagozzi & Phillips, 1982, p. 459). More importantly, antecedent and consequence variables in a hypothesis should be conceptualised and measured using the same unit of analysis. For instance, Carneiro et al. (2007) criticised Shoham's (1998) export performance framework on the grounds that the latter considered all export ventures as a unit of analysis (instead of a single export venture), while the determinant factors in his model include venture-level variables.

Oliviera et al. (2011) argue that although export performance can occur at different levels in the firm (single venture, or all ventures), export performance measured at one level may not be appropriate for testing models of determinants of export

success developed at a different level. In the same vein, they highlighted that researchers must explicitly consider antecedent variables, specific to the level of analysis chosen. In developing the conceptual framework for this study, constructs and the hypothesised relationships are considered specific to the unit of analysis, which is firm-level including all export ventures of the firm. Figure 3.1 is a graphical presentation of the model developed from the hypothesis that is discussed in the following chapters.

Figure 3.1 Conceptual model of the study



It is notable that this model is embedded in two different theoretical backgrounds. While sharing independent constructs, the export mode portfolio in relation to the specific theory is defined and conceptualised differently. Since this current research is the first to study the export mode portfolio, further elaboration on this variable was needed and is covered in the next section.

3.3 Conceptual overview of export mode portfolio

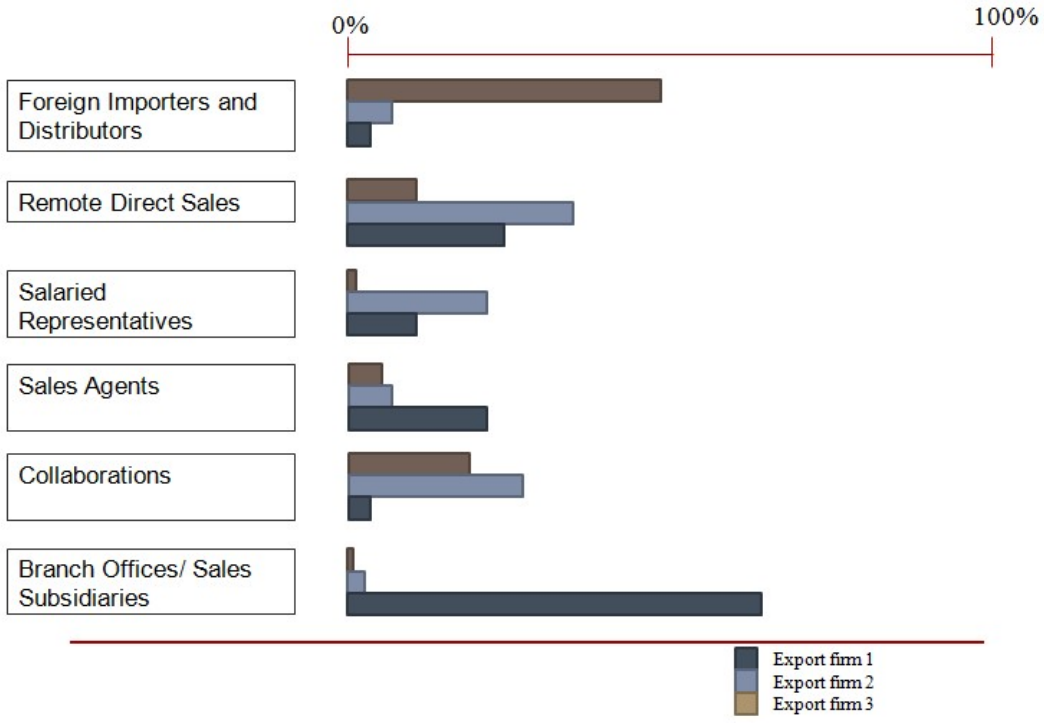
As defined and categorised in chapter two (see section 2.3), there are seven types of export entry mode that a firm could choose to enter a new market, namely, indirect exporting, foreign importer and distributors, remote direct sale, salaried representatives, sales agents, collaborations, and branch offices/sales subsidiaries. Following the majority of export entry scholars, this study excludes indirect exporting

as a mode of active exporting since it requires very little involvement of the manufacturing exporting firm in its foreign markets (e.g. Aulakh & Kotabe, 1997). Accordingly, this study focuses on six types of (direct) exporting that necessitate active channel decisions in foreign markets.

Each firm has a unique combination of these six modes that, in fact, shapes its export mode portfolio. In order to further clarify a firm's export entry portfolio concept, an illustration is used and presented in Figure 3.2. This figure demonstrates an example of three export firms in which the six different types of entry modes are hypothetically allocated to each of them. Each firm's export mode portfolio is presented using a specific colour. It is worth mentioning that export mode portfolio presents 100 percent of the firms' export entry modes, and each firm portfolio presents different dispersions of modes within the firm.

In this example, export firm one has chosen more than 50 per cent of its entry modes to be through its "branch offices/ sale subsidiaries". Whereas, the majority of export activities of firm three are through using a "foreign importer and distributors". The portfolio of firm two holds a higher level of "remote direct sale" and "collaboration" export entry modes compared to the other entry modes. Therefore, the percentage of each entry type could vary from zero to 100 percent in a firm portfolio of export markets.

Figure 3.2 A hypothetical example of export firm entry mode portfolio



Considering each export firm has a unique export entry profile, the question is whether this unique profile will lead to a different level of export performance, and what triggers choosing different mode combinations. In the next two sections, the export mode portfolio variable is conceptualised based on definition and logic of two theories of TCE and RO.

3.3.1 Export mode portfolio through the TCE lens

As mentioned in chapter two, transaction cost theory was originally formulated to address ‘make’ versus ‘buy’ decisions (Peng et al., 2006; Rangan et al., 1993). Considering TCE assumptions of bounded rationality and opportunism, it is argued that partners may act opportunistically if not controlled, the problem that may appear in buying services from other firms (e.g. intermediaries). Hence, TCE suggests that cost of control is best reduced through internalised modes of business activities (Brouthers et al., 2008). Applying this point of view, prior research has typically classified entry modes in a dichotomous manner (Ahsan & Musteen, 2011). The make vs. buy taxonomy is equal to internalised/integrated/hierarchical vs. externalised/non-integrated/market mode, which often are used interchangeably in the export literature (Li et al., 2016).

According to this classification, the level of control as well as resource commitment is highest in the case of internalised export activities with no third-party involvement. In the internalised export modes, firms solely operate their entire export activities, they use their own sales people and facilities either in the home country (i.e. remote direct sale), or abroad using the firm’s own travelling sale representatives (i.e. salaried representatives), or establishing branch offices and sales subsidiaries in the host country.

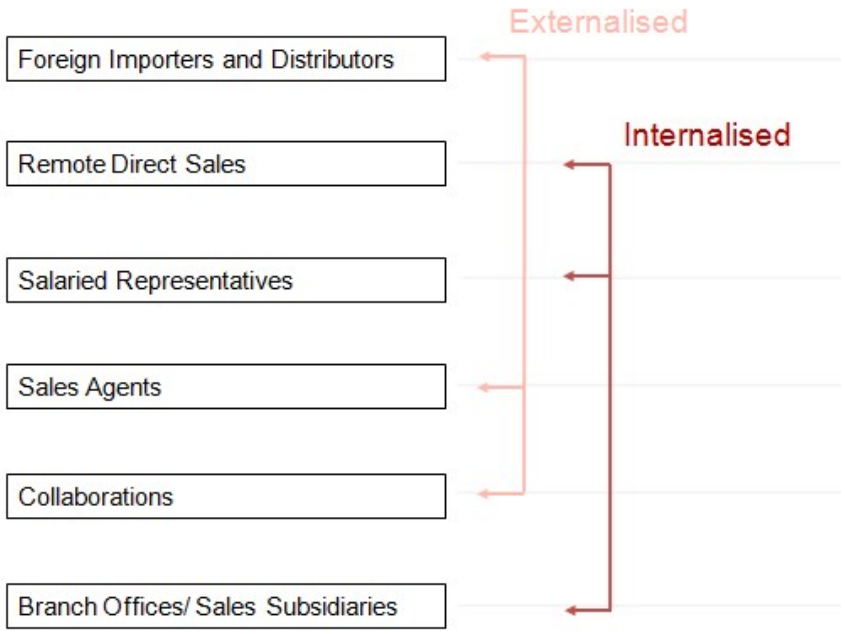
On the other hand, the level of control and commitment is lowest in the non-integrated, arm’s-length mode of export entries, when the firm’s export activities are bought entirely or partly from other marketing firms (i.e. foreign importer and distributors, agents, or other collaborations).

In the extant export entry mode literature, the concept of internalised vs. externalised entry mode choices has been always applied at the venture level, when the decision

is about the extent to which the firm performs internally all the functions needed in the marketing of their product instead of contracting them to intermediaries (Rialp et al., 2002).

Taking into account the portfolio of modes rather than a single export market mode, this theory distinguishes two different export mode portfolios: internalised portfolio vs. externalised portfolio. As illustrated in Figure 3.3, when the majority of entry modes across the firm's export markets are internalised modes (i.e. remote direct sales, salaried representatives, and branch offices/sales subsidiaries), export mode portfolio is considered to be internalised. On the other hand, when the majority of entry modes in a firm market portfolio are externalised entry modes (i.e. foreign importer and distributors, sales agents, and collaborations), it is considered to have externalised export mode portfolio.

Figure 3.3 Export mode portfolio through the TCE lens: Internalised vs. Externalised



3.3.2 Export mode portfolio through the RO lens

Real options theory conceptualises a firm as being a bundle of 'strategic options' that are strategic investments accumulated over time (Bowman & Hurry, 1993; Brouthers et al., 2008; McGrath et al., 2004). One of the strategic investments that a firm

makes is investing in foreign market entries. As highlighted by Li and Li (2010), entry modes are a firm's investment that could create real options as they provide the firm with the right but not the obligation to take a future action such as deferring, expanding, or abandoning.

The broader international entry mode literature typically identifies three main ways of entering a market (e.g. Ahsan & Musteen, 2011; Brouthers et al., 2008; Li & Rugman, 2007; Trigeorgis & Reuer, 2017) as follows:

(1) Through internal investment to build and develop resources in the foreign market (e.g. FDI, green field investment);

(2) By sharing investments to share risks and benefits of the investment (e.g. JVs or strategic alliance);

(3) Not being involved in direct/indirect investment in the foreign market and only entering the market through making contracts (e.g. export, licensing, franchising).

In this context, the real options perspective emphasizes that operations such as strategic alliances, joint ventures and arm's-length transactions (e.g. exports, licensing, franchising, etc.) have high abandon and defer option value respectively. These entry modes offer the firm a path to full ownership as uncertainties are resolved (Kogut, 1991; Reuer & Tong, 2005; Tong, Reuer, & Peng, 2008). They allow the firm to defer large irreversible investments until uncertainties at the host country are resolved or until uncertainties are reduced through learning (Majd & Pindyck, 1987; Wooster et al., 2016). Nevertheless, FDI and green field investments hold lowest value of defer and abandon, as the investment are highly irreversible (Brouthers et al., 2008).

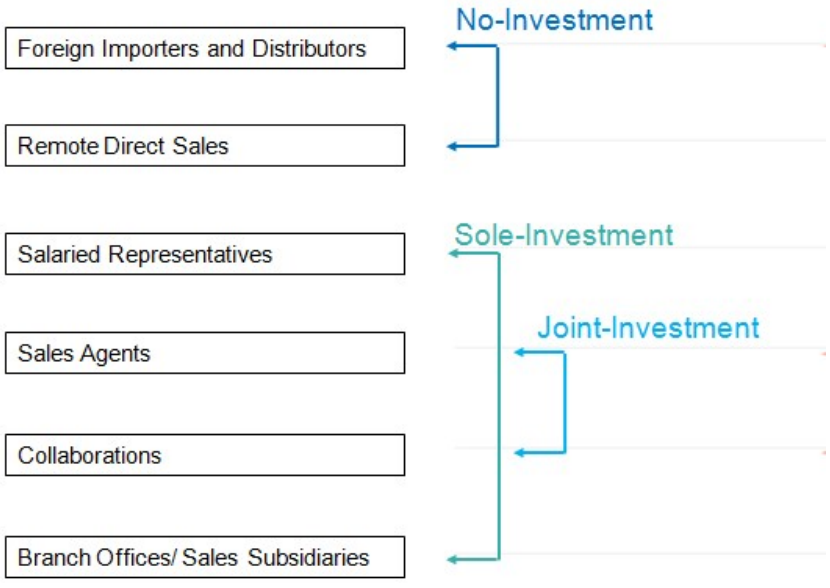
In the same vein, based on their investment contribution, three specific export mode categories could be identified in an export mode portfolio of a firm. As illustrated in Figure 3.4, export firms may operate and invest solely in the foreign market by using their company-owned sales and marketing facilities, either through the establishment of a foreign subsidiary or their sales representative. These sales representatives are under the firm authority and in addition to the sales activities; they gather information

on foreign market competition, customer preferences, market trends, and act as a communicator (Albaum et al., 2011). This category is called the 'Sole-Investment' export mode category.

On the other hand, export firms could just avoid investment and presence in the foreign market and manage their export activities directly from the home country (remote direct exporting) or through foreign importers and distributors located in the host market where they take ownership and perform all contractual functions. This category is called 'No-Investment' export mode in Figure 3.4.

The third category presented in Figure 3.4 is 'Joint-Investment'. This is assigned to the export modes that either become involved in a joint venture with another company to handle sales of their product in their market or use commission agents to accomplish export activities in the foreign market.

Figure 3.4 Export mode portfolio through the RO lens: No-Investment, Joint-Investment, Sole-Investment



Implementing option logic across the firm's different export mode operations, its mode portfolio could consist of a different combination of the above-mentioned categories. Nevertheless, to lower the risk of loss and limit the irreversible investment under different level and type of uncertainties, certain export mode

portfolios could be more effective and efficient than others (Trigeorgis & Reuer, 2017).

For instance, firm exposed to the exogenous uncertain environment in their markets could benefit from a higher proportion of No-Investment export modes in their export mode portfolios. As such, they would have a higher defer option value when contrasted with firms with more Sole-Investment export modes in their portfolio. Facing endogenous uncertainty, on the other hand, firms could benefit from the highest proportion of Joint-Investment entry modes that supports sequential investments and fosters learning.

The alternative theoretical view of RO may enlighten the possible structure of export mode portfolio in response to uncertainty beyond the control of the opportunism problem that is emphasised in the TCE. Under an RO lens, entry modes are a structural mechanism that helps the firm to manage uncertainties in a proactive manner (Reuer & Tong, 2005). As such, export mode portfolio should be structured to address uncertainties in the most efficient and value creating manner.

3.4 TCE-oriented conceptual sub-model: degree of internalisation

The first conceptual sub-model of this study is rooted in TCE theory and aims to examine the effect of core independent variables of TCE on export mode portfolio of the firm (i.e. internalised vs. externalised). Developing on the interaction of two key assumptions of human behaviour (i.e. bounded rationality and opportunism), and taking into consideration the key dimensions of foreign entry mode (i.e., asset specificity, and uncertainty), TCE advocates the export mode operations that can minimise the costs associated with monitoring foreign entry operations (De Villa et al., 2015; Zhao et al., 2004). The firm is expected to make a rational decision to shape the most cost efficient export mode portfolio.

In the following sections, the hypothesised association between TCE key factors and the firm's export mode portfolio (internalised vs. externalised) is explained.

3.4.1 The relationship between internal uncertainty and degree of internalisation

Being the central focus of the TCE, the relationship between internal uncertainty and degree of internalisation has been investigated in most of the TCE-based entry mode studies both in export specific (see Table 2.2) and international marketing (see Table 2.4) contexts. Scholars have generally viewed operation modes as a way to minimise efficiently internal uncertainty and its potential negative consequences. As discussed in chapter two, the internal uncertainty stems from the potential opportunistic behaviour of a partner firm (partner uncertainty) and its inability (or difficulty) to measure the performance of the partners in the business (behavioural uncertainty).

It is argued that export firms operating in a market could benefit from having a partner to collaborate with in different forms of a commission agent, distributor joint venture, or strategic alliance (Aulakh & Kotabe, 1997). Partnership with local businesses can foster learning market know-how, helping better positioning of the products in the market, and reduce the risk of loss. Knowledge of the market also helps the firm identify changes in products that will lead to greater acceptance and sales (He et al., 2013). Despite the mentioned benefit of partnership activities, under the TCE lens the negatives of partnership operations are magnified. It is assumed that potential partners may act opportunistically if they are not controlled and monitored. On the one hand, before entering a relationship the firm may feel that the partner might allow their self-interest to override the joint interest of the partnership, and take advantage of the relationship. The more a firm feels uncertain about the potential partner not behaving opportunistically, the more control and monitoring of export operations is expected. In this case, the partner's tendency to behave opportunistically could be reduced only through rigorous negotiation before making the contract. In doing so, the ex-ante cost of negotiating and controlling the contract could greatly increase (Erramilli & Rao, 1993). In such circumstances, when partner uncertainty exists, the firm can significantly reduce the ex-ante costs by internalising its export activities and employing its own employees and facilities to export its products to its markets.

While partner uncertainty aims to capture the opportunistic threat felt from the potential partner before deciding to make the partnership, the behavioural uncertainty reflects the difficulty of measuring the performance of sales if partners are not controlled and monitored (Shervani et al., 2007). Behavioural uncertainty refers to the difficulties associated with monitoring the contractual performance of exchange partners (Rindfleisch, Malter, Ganesan, & Moorman, 2008). It is the challenge of determining ex-post whether transaction partners' behaviour has complied with contracts (Brettel, Engelen, & Müller, 2010; David & Han, 2004; Williamson, 1975). As the behavioural uncertainty increases, the ex-post costs of monitoring the performance, and enforcing the behaviour of the parties to the contract increases (Williamson, 1985; Khemakhem, 2010). In these circumstances, TCE advocates that firms can significantly reduce their cost of monitoring by internalising their activities.

TCE suggests achieving higher control through ownership and internalisation when facing internal uncertainty (Cadeaux & Ng, 2012). Thus, companies that are able to exploit ownership advantages through higher control are expected to earn above average returns. In the extant literature, internal uncertainties have been explicitly investigated as influencing entry-mode decision (e.g. Anderson & Gatignon, 1986; Brouthers et al., 2008; He et al., 2013; Manolis et al., 1997; Shervani et al., 2007)

As a result, in facing higher internal uncertainty, export firms are expected to shape their portfolio of export markets with higher proportion of internalised entry modes.

Therefore, it is hypothesised that:

H1: *There is a positive relationship between internal uncertainty and degree of internalised export modes in an export mode portfolio of the firm. As such:*

H1a: *The greater the partner uncertainty, the greater the degree of internalised export modes in an export mode portfolio of the firm.*

H1b: *The greater the behavioural uncertainty, the greater the degree of internalised export modes in an export mode portfolio of the firm.*

3.4.2 The relationship between external uncertainty and degree of internalisation

While focused primarily on internal uncertainty, TCE research has also investigated the impact of host-country environmental uncertainties on entry mode choice (Aulakh & Kotabe, 1997; Brouthers, Brouthers, & Werner, 2000; Klein et al., 1990; Kogut & Singh, 1988).

As argued in the literature review (see chapter two, section 2.4.3), the host country environmental uncertainties in general represent the extent to which a country's political, legal, and economic environment threaten the stability of a business operation (Gatignon & Anderson, 1988), and is believed to have common outcomes in relation to the entry mode decisions. Using an umbrella term of investment uncertainty, Brouthers et al. (2008) refer to “the perceived stability of the social, economic, and political environment in the target country”, as well as “the investor's perception of target country political attitudes toward foreign firms” (Brouthers & Brouthers, 2001, p. 181). It is argued that in the condition of high investment uncertainty, multinational enterprises typically enter new markets via wholly-owned subsidiaries (Chang, Kao, Kuo, & Chiu, 2012). In the international marketing literature, different environmental uncertainties have been explicitly investigated as factors influencing entry-mode decision. These uncertainties include, among others, investment risk (Brouthers, Brouthers, & Werner, 2002) (Brouthers & Brouthers, 2001; Brouthers, 2002), economic uncertainty (Brouthers et al., 2003; Brouthers & Brouthers, 2003), political risks (López-Duarte & Vidal-Suárez, 2010; Reuer & Tong, 2005), demand uncertainty (Brouthers & Dikova, 2010), and exchange rate uncertainty (Campa & Guillén, 1999; Cuypers & Martin, 2010).

In the export specific literature, studies embedded in the TCE framework investigated the relationship between environmental uncertainties and export entry decisions. For instance, Manolis et al. (1997) considered market uncertainty and regulatory environment uncertainty as forms of environmental uncertainty to determine the degree of channel integration. Country risk represented external uncertainty in the studies of Aulakh and Kotabeh (1997) and Sanchez et al. (2007) to predict the degree of export channel integration. Institutional distance is used in the

work of Campa and Guillén (1999) as a proxy for external uncertainty in determining entry mode type.

Under the assumptions of the TCE approach, for firms that facing investment uncertainties, the external host market environment cannot be predicted or control due to bounded rationality (Klein et al. 1990). In fact, investment uncertainties enhance negative information asymmetries and inability to write complete contracts, thus increase the possibility of external intermediaries to behave opportunistically (Klein et al., 1990). Gatignon and Anderson (1988) suggest that facing investment uncertainty firms need greater control to protect their firm from opportunism and environmental contingences, hence, prefer more internalised modes to enter their markets.

Thus, it is hypothesised that:

H2: *The greater the investment uncertainty (external uncertainty), the greater the degree of internalised export modes in an export mode portfolio of the firm.*

3.4.3 The relationship between asset specificity and degree of internalisation

Along with uncertainties, asset specificity has been studied overwhelmingly as a core attribute of market entry decisions (Zhao et al., 2004). Asset specificity concerns a broad scope of resources, specifically ones that enable a firm to differentiate its strategy and products (Zhao et al., 2004). Traditionally, investments in R&D are considered as a source of asset specificity. This is a knowledge-based asset embedded in the firm's employees and one that provides the firm with monopolistic advantages to exploit in its foreign markets (Zhao et al., 2004). The nature of specialised assets necessitating safeguarding to reduce potential partner opportunism (Hesterly & Zenger, 1993). Klein et al. (1990) argue that high presence of specialised assets (e.g. proprietary technology) tends to lead to a high degree of integration and control in the firm export operations. In addition to the threat of information dissemination that could cost the firm, translation and transition of

implicit knowledge to the partner firm could be difficult and costly, thus it also creates a need for internalisation of operations (Dunning, 1981).

It is also argued that marketing skills and capabilities developed to sell products, as well as the firm's strength in sales, are key specific assets for international firms to operate successfully in their market (He et al., 2013; Sanchez-Peinado et al., 2007). These assets are especially prone to issues related to information dissemination and the exploitation of information by third parties. These skills and capabilities that are developed over many years and are rooted in a firm's culture, systems and routines could be developed, strengthened and protected through the internalisation of export operations and equip firms with a competitive advantage (Sanchez-Peinado et al., 2007).

The positive effect of asset specificity on internalised export entry modes has received empirical support in studies by Anderson (1985), Anderson and Coughlan (1987), John and Weitz (1988), and Rialp et al. (2002). Nonetheless, a number of studies did not find any significant effects of asset specificity in establishing the export mode (e.g. Kogut & Singh, 1988; Merino & Salas, 2002).

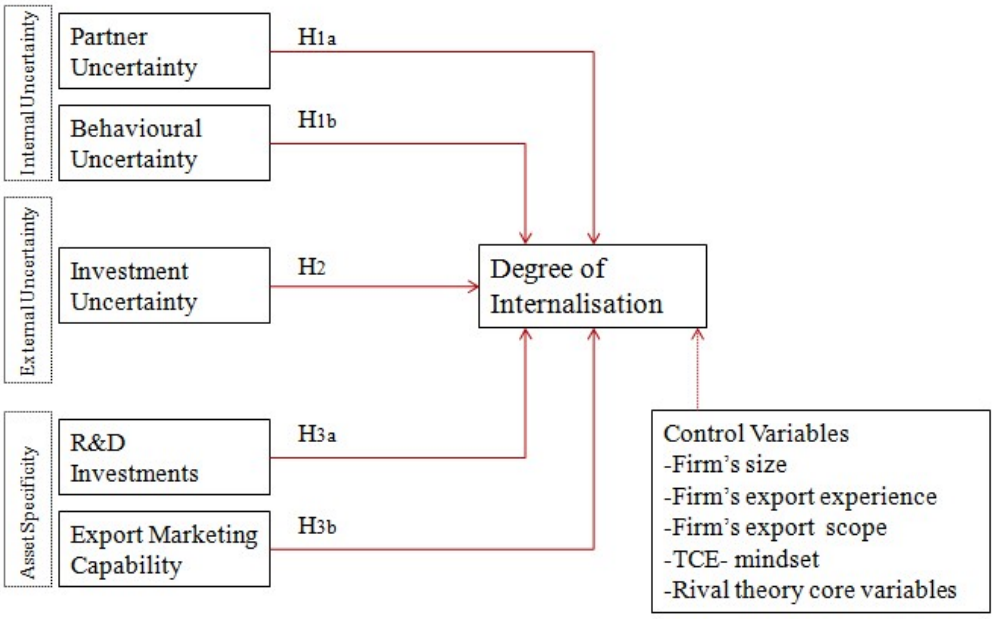
Therefore, it is hypothesised that:

H3: *There is a positive relationship between asset specificity level and degree of internalised export modes in an export mode portfolio of the firm. As such:*

H3a: *The greater the R&D investments, the greater the degree of internalised export modes in an export mode portfolio of the firm.*

H3b: *The greater the level of the firm's export marketing capability, the greater the degree of internalised export modes in an export mode portfolio of the firm.*

Figure 3.5 TCE-oriented export mode portfolio: degree of internalisation



3.5 RO-oriented conceptual sub-models

The second set of conceptual models in this study are embedded in RO theory.

As mentioned in chapter two, the main difference between the TCE framwork and the RO approach towards entry mode strategies is the different emphasis they put on the source of uncertainty and the way they handle uncertainty (Foss & Roemer, 2010; Kogut & Kulatilaka, 2001; Li & Rugman, 2007; Rese & Roemer, 2004). The RO theory of investment suggests that in a world of uncertainty, since the investments are at least irreversible, firms avoid high commitment investment. Instead, they prefer to minimise current investments, while securing an option to invest at a later time, when they have obtained more information and are able to re-evaluate the uncertainties involved (Brouthers et al., 2008; Li, 2008).

As explained in section 3.3.2, from the RO point of view, three different categories of firm's export entry mode are recognised including No-Investment, Joint-Investment, and Sole-Investment export operation modes.

It is argued by Li and Rugman (2007) that intuitively, firms are capable of catching up with growth when the market is certain and predictable. However, it is in response to uncertainty that a firm with the highest amount of investment in their entry modes faces more constraints because it is devoted to more irreversible investments thus faces more obstacles to withdraw from the market. In other words, the option to grow is important, but not all the entry modes differ significantly in their capability of taking advantage of growth opportunities (Li & Rugman, 2007). When uncertainty increases, the option to defer and abandon becomes important as well (depending on the type of uncertainty). Thus, sales subsidiary, for example, provides much less value in the option to defer than to holding operations such as direct exporting or a collaborative operation and therefore becomes less desirable for the firm.

Given the high emphasis on toehold operations (i.e. Joint-Investment and No-Investment) as oppose to high-commitment operations (i.e. Sole-Investment), and their high abandon and defer option value, it is expected that an RO-based export mode portfolio of the firm will consist of a higher degree of No-Investment and Joint-Investment entry modes. These entry modes offer the firm a path to full ownership as uncertainties are resolved (Kogut, 1991; Reuer & Tong, 2005; Tong et al., 2008), while allowing the firm to defer large irreversible investments until uncertainties at the host country are resolved or until uncertainties are reduced through learning (Majd & Pindyck, 1987; Wooster et al., 2016).

Given the above reasoning, the RO-based model in this study has two dependent variables of 'degree of No-Investment modes in export mode portfolio', and 'degree of Joint-Investment modes in export mode portfolio'[6]. Core main effect variables are different types of exogenous and endogenous uncertainties, as well as investment irreversibility. In the following sections, two sub-models, each with one dependent variable, are introduced.

[6] It is notable that throughout the thesis, two dependent variables of 'degree of No-Investment modes in export mode portfolio' and 'degree of Joint-Investment modes in export mode portfolio' are shortened and referred to as 'degree of Joint-investment' and 'degree of No-investment', respectively.

3.5.1 RO-oriented sub-model 1: degree of Joint-Investment

3.5.1.1 The relationship between endogenous uncertainty and degree of Joint-Investment

When firms are faced with endogenous uncertainty in their market entry investments, they have the opportunity for information updating and learning. This type of uncertainty can be reduced or omitted by the firm's action and its learning process, through investment in information and knowledge over time (Folta, 1998). Hence, extant RO research has encouraged firms to invest jointly in the foreign market to benefit from learning opportunities and future growth (Li, 2008; Pindyck, 1993; Roberts & Weitzman, 1981).

In addition to high value of growth option (when uncertainty resolved favourably), Joint-Investment in the foreign market could provide the firm with a high value of abandon option (in the event of negative information). Thus, this type of investment would make the firm flexible in reacting to the endogenous uncertainty (Li & Rugman, 2007). Limited investment in host country partnerships (e.g. JVs, using agents, strategic alliance) could provide the firm with access to knowledge about endogenous uncertainties, reduce them through learning by doing, and finally, increase the capability of the firm in taking advantage of growth opportunities (Dixit & Pindyck, 1994; Ipsmiller et al., 2017).

Among different types of endogenous uncertainty, a firm may face in its markets; cultural uncertainty and technological uncertainty are discussed to be the most likely ones should a firm decide to expand its boundaries abroad. See section 2.5.5.2 in chapter two for a comprehensive discussion on this.

Cultural uncertainty stems from unpredictability of cultural factors (e.g. customs, practices, and norms) in the foreign market (Cuypers & Martin, 2010). Local presence as well as cooperation and communication with the local parties who tend to have different values, beliefs and customs enable a foreign firm to better assess its own personnel and organisation (Cuypers & Martin, 2010; Hofstede & Hofstede,

2001). Cultural uncertainty is a learnable uncertainty if firms proactively seek locally-based assets, and solicit the participation of local partners (Anderson & Gatignon, 1986; Hennart, 1991; Sanchez-Peinado et al., 2007). For firms with higher proportion of Joint-Investment in their export mode portfolio, cultural uncertainty could be viewed as having an upside benefit (i.e. firm-specific learning) and being a source of competitive advantage (Ahsan & Musteen, 2011). It prevents irreversible investment since firms are able to make informed adjustments to their investment, upon receiving information in sequential stages.

In addition to cultural uncertainty, most RO research has focused on how technological uncertainty affects governance decisions and entry mode choices (Crook et al., 2012). Technological uncertainty could arise from either unpredictable changes in the industry (Folta 1989) or unpredictable technological changes in foreign markets (Jiang et al., 2008). Due to the endogenous nature of this uncertainty, it can be reduced by the firm's actions and its learning capabilities (Chi, 2000; Folta, 1998; Roberts & Weitzman, 1981). Thus, collaborative and Joint-Investment in the market allows the firms to gain additional information about the market and allows partners to both share the risk and enjoy learning advantage over the competitors in the same industry (Dixit & Pindyck, 1994; McGrath et al., 2004; Miller & Folta, 2002). Thus, firms could benefit from the upside of the technological uncertainty if they structure their export mode portfolio with a higher degree of Joint-Investment.

Therefore, it is hypothesised that:

H4: *There is a positive relationship between endogenous uncertainty and degree of Joint-Investment export modes in an export mode portfolio of the firm. As such:*

H4a: *The greater the cultural uncertainty, the greater the degree of Joint-Investment export modes in an export mode portfolio of the firm.*

H4b: *The greater the technological uncertainty, the greater the degree of Joint-Investment export modes in an export mode portfolio of the firm.*

3.5.1.2 The relationship between exogenous uncertainty and degree of Joint-Investment

Exogenous uncertainty is the uncertainty associated with the firm's external environment; it is not learnable and, more importantly, its reduction is independent of firm action (Dixit & Pindyck, 1994). Hence, exogenous uncertainty could affect the investment decisions of the firm differently (Li, 2008). Facing exogenous uncertainty, delay in investment is more beneficial than investing since it provides the flexibility to invest in future if uncertainty is resolved more favourably, while limiting up front commitment (Li, 2008).

Two main types of exogenous uncertainty are investment uncertainty and demand uncertainty. They could both be affected by economic, political, or financial instability in the host country where a firm invests (Wooster et al., 2016). Unlike endogenous uncertainties, these uncertainties are not learnable, and cannot be controlled by the firm. Thus, investment, even partially in forms of Joint-investment, cannot help the firm to reduce uncertainties, while increase, the risk of losing investment if the uncertainty is not resolved favourably.

Therefore, it is hypothesised that:

H5: *There is a negative relationship between exogenous uncertainty and degree of Joint-Investment export modes in an export mode portfolio of the firm. As such:*

H5a: *The greater the investment uncertainty, the lower the degree of Joint-Investment export modes in an export mode portfolio of the firm.*

H5b: *The greater the demand uncertainty, the lower the degree of Joint-Investment export modes in an export mode portfolio of the firm.*

3.5.1.3 The relationship between investment irreversibility and degree of Joint-Investment

When investments are irreversible, or partially irreversible, and the future value of them is uncertain; option to invest (defer option) is more valuable than the investment itself (Brouthers et al., 2008; Leiblein, 2003). Specifically, at the early

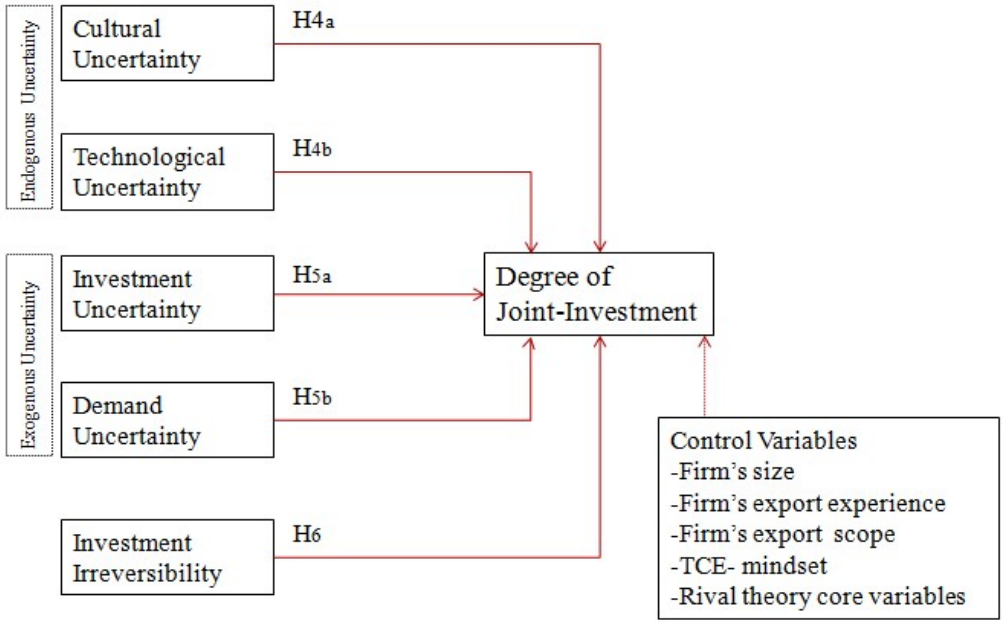
stages of market entry, avoiding high-commitment/Sole-Investment in the foreign market is recommended to avoid high set up cost of investment in the foreign market (Lukas, 2007; Wooster et al., 2016). Smarzynska (2004) argues that investors with high irreversible assets are more likely to focus on [independent] distribution rather than having local presence, especially if they are new to the market.

As discussed earlier, Joint-investments have high value option of growth and abandon. Nevertheless, since firms with Joint-Investment market entries have already invested in propriety assets that are irreversible; they have lower value of defer option, compared to non-investment entry modes.

Therefore, from the RO point of view, it is hypothesised that:

H6: *There is a negative relationship between investment irreversibility and degree of Joint-Investment export modes in an export mode portfolio of the firm.*

Figure 3.6 RO-oriented export mode portfolio: degree of Joint-Investment



3.5.2 RO-oriented sub-model 2: degree of No-Investment

3.5.2.1 The relationship between exogenous uncertainty and degree of No-Investment

As justified earlier in section 3.5, the RO model in this study recognises two types of option entry modes: Joint-Investment entry modes (see section 3.5.1) and No-investment entry modes. From the RO point of view, the relationship between exogenous uncertainty and arm's-length market entries (No-Investment) is highlighted in the international business literature (Ahsan & Musteen, 2011). It is argued that facing exogenous uncertainty, firms are not able to control the uncertainty or reduce it through their investment. In other words, an investment in the exogenous uncertain markets does not provide learning opportunities. Hence, delay in investment is more beneficial than investing since it provides the flexibility to invest in future if uncertainty is resolved more favourably, while limiting up front commitment (Li, 2008).

The RO theory proposes an opposite strategy to TCE recommendations in facing exogenous uncertainty (i.e. investment uncertainty). TCE emphasises internalised export channel to be chosen over arm's-length market transactions to benefit from of managerial control and reduced 'cost of monitoring' (Campa & Guillén, 1999; Root, 1964). RO, on the other hand, stresses the benefit of a 'wait and see strategy' to allow firms to defer large strategic investments in foreign markets, and limit irreversible 'cost of investment' in foreign markets, until environmental contingencies at the host-country level are resolved, and (Majd & Pindyck, 1987).

Therefore, from the RO point of view, it is hypothesised that:

H7: *There is a positive relationship between exogenous uncertainty and degree of No-Investment export modes in an export mode portfolio of the firm. As such:*

H7a: *The greater the investment uncertainty, the higher the degree of No-Investment export entry modes in an export mode portfolio of the firm.*

H7b: *The greater the demand uncertainty, the higher the degree of No-Investment export entry modes in an export mode portfolio of the firm.*

3.5.2.2 The relationship between endogenous uncertainty and degree of No-Investment

To keep the consistency among the proposed models, as discussed earlier, the same independent endogenous variables – cultural uncertainty and technological uncertainty – are of interest in relation to No-Investment export entry modes. RO theory maintains that deferring investments in foreign markets does not provide the firm with market learning opportunity. In fact, facing endogenous uncertainty the efficient strategy moves from “wait and see” to “act and see” (Adner & Levinthal, 2004). No-Investment entry modes, such as using independent distributors, do not allow the firm to engage in information gathering and learning the cultural and technological uncertainties in the market. No-Investment modes are not the right investment strategy in facing endogenous uncertainty, since they do not provide the firm with benefits from relationships with local officials, businesses, and current and potential customers to reduce related endogenous uncertainty (Wooster et al., 2016).

Therefore, it is hypothesised that:

H8: *There is a negative relationship between endogenous uncertainty and degree of No-Investment export modes in an export mode portfolio of the firm. As such:*

H8a: *The greater the cultural uncertainty, the lower the degree of No-Investment export modes in an export mode portfolio of the firm.*

H8b: *The greater the technological uncertainty, the lower the degree of No-Investment export modes in an export mode portfolio of the firm.*

3.5.2.3 The relationship between investment irreversibility and degree of No-Investment

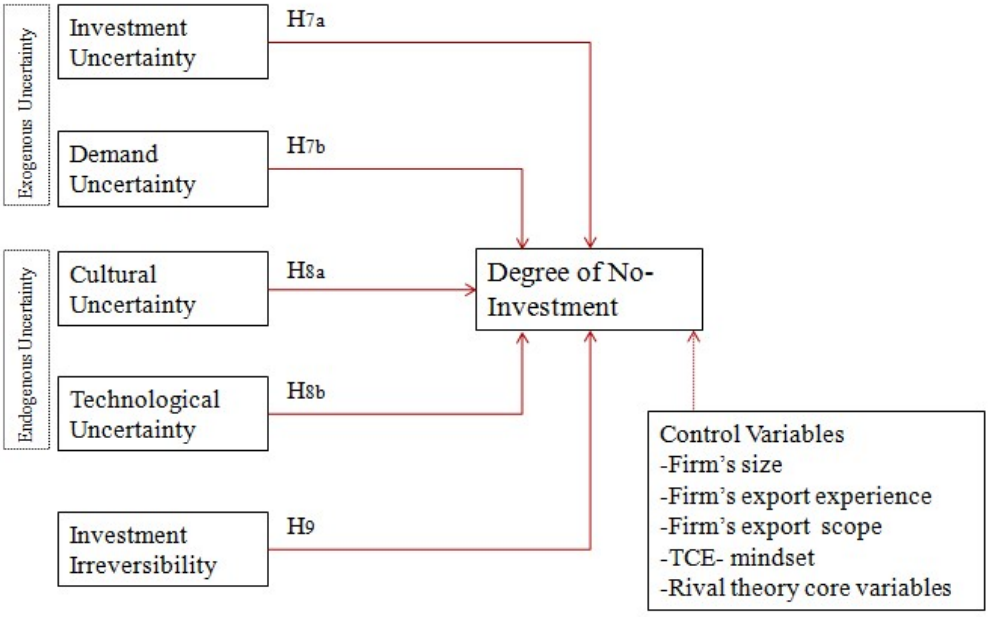
Based on the traditional logic of TCE, exporting through internalised channels is a means to achieve efficiencies in the presence of opportunism that might threaten specific assets of the firm. By contrast, RO theory puts more emphasis on minimising the irreversibility of the investments and rationalises that entry modes

that require no investment in the foreign market are preferred in order to achieve higher efficiencies. Market entries with no investment abroad, specifically at the early stages, provide an option to defer investment (solely or jointly). At the same time, they work as a platform for the firm to exercise growth options in the later stages of internationalisation. As Li and Rugman (2007) highlighted, this rationale also lends support to internationalisation theory, where international firms usually start from low-investment market entry modes, then switch to sole-commitment market entry modes when they know the market better.

Therefore, it is hypothesised that:

H9: *There is a positive relationship between investment irreversibility and degree of No-Investment export modes in an export mode portfolio of the firm.*

Figure 3.7 RO-oriented export mode portfolio: degree of No-Investment



3.6 Control variables

Previous scholarly literature has established that firm size, international experience, and scope of international business have entry mode choice consequences (e.g.

Brouthers et al., 2008; Brouthers et al., 2003; Cuypers & Martin, 2010; Erramilli & Rao, 1993; Fernández□Olmos & Díez□Vial, 2014; Gatignon & Anderson, 1988; He et al., 2013; Hennart, 1991). In line with the extant literature, this study controls for these variables.

In addition, given the centrality of 'control mechanism' and internalisation in the entry mode literature (Anderson & Gatignon, 1986; Anderson & Weitz, 1986), it is important to examine the extent to which firms, explicitly or implicitly, have adopted this TCE mindset in their export marketing activities, and operations. Hence, this study controls for the TCE mindset of the decision makers.

Finally, as discussed earlier, the rival theory variables are kept as control variables in each model.

Firm size

A considerable number of entry mode scholars examine the effect of firm size on entry mode decisions (e.g. Anderson, 1985; Brouthers et al., 2008; Brouthers et al., 2003; Leiblein, Reuer, & Dalsace, 2002; Merino & Salas, 2002; Reuer & Leiblein, 2000).

It is argued that larger firms enjoy economy of scale and scope. They have greater resources, which enable them to afford greater resource commitment and internalise their activities. Moreover, firms with different sizes might have different perception of the uncertainties surrounding a mode choice (Brouthers et al., 2008). This may affect the entry mode choice of the export firm in that larger firms choose internalised export entry modes, or opt for higher investment (solely or jointly) in foreign markets, since they have more resources at their disposal and can mitigate the effects of an unfavourable environmental condition (Lee & Makhija, 2009).

Export experience

International experience is also found to have important mode choice implications (Brouthers et al., 2008; e.g. Brouthers et al., 2003; Buskirk & Andrus, 2014; Erramilli & Rao, 1993; Fernández-Olmos & Díez-Vial, 2015; Gatignon & Anderson, 1988; Hennart, 1991). Luo and Peng (1999, p. 270) put forward that "experience is a prime

source of learning in organizations." Firms with more international experience are expected to have more market knowledge and be more responsive to the change of uncertainty status. As Brouthers and Divoka (2010) maintained, firms with little or no international experience could find it difficult to identify and negotiate with potential partners. Hence, they prefer to make substantial resource commitments, and internalise their international operations to avoid downside risks. It is notable that empirical evidence on the effect of experience on entry mode choice has been mixed (Brouthers & Hennart, 2007). However, Zhao et al.'s (2004) meta-analysis confirms that experienced firms tend to prefer internalised and high commitment entry modes.

Scope of international business

In addition to the length of international experience, scope of experience is believed to effect entry mode decisions (Brouthers & Nakos, 2004). Firms that have export operations in more countries develop knowledge-based resources that lead them to different strategic market entry choices. Compared to the firms lacking such internal resources, these firms are likely to perceive lower downside risk potential in a given investment opportunity, leading them to invest in joint operations (Brouthers et al., 2008).

On the other hand, as discussed by Wu et al. (2007), diversity of foreign market experience provides the export firm with a greater flexibility to operate in different markets. Thus, it is expected that percentage of internalised export operations in the export mode portfolio of the firm decreases when the scope of international business increases.

TCE mindset

As stated in chapter two, managers with a 'TCE mindset' are expected to fully control and own their operations in foreign markets. Therefore, when consider exporting their products to foreign markets, the likelihood to invest in modes with an external partner significantly decreases. In fact, it is believed that the concept of integration is embedded in entry decisions, and control is the focus of the entry mode literature. Integration is believed to be the single most important determinant of investment return (Anderson & Gatignon, 1986; Anderson & Weitz, 1986). Although it has been mentioned implicitly throughout the entry mode literature, it has never been tested and examined directly and explicitly.

Taking into account the aggregated level of export entry modes, this study is interested to control for the so-called TCE mindset of the managers towards shaping their export mode portfolio. That is, the study looks across the entire set of the firm's exporting operations to determine the degree of TCE mindset towards integration and internalisation and avoiding joint operations.

3.7 Performance implication

In line with the previous entry mode research (e.g. Aulakh & Kotabe, 1997; Brouthers et al., 2008; Brouthers, 2002; Brouthers et al., 2003; Fernández-Olmos & Díez-Vial, 2015; Shaver, 1998), in this study the underpinning theory for assessing performance outcomes is contingency theory. By employing fit concept to examine the performance consequences of different export mode portfolios of the firm, this study aims to answer the following questions:

Is there any fit between theoretical predicted export mode portfolios and firm performance? Do the firms that structure their export portfolio according to a certain theory outperform those that do not?

As illustrated in chapter two (see section 2.6.1.2), fit variable could be defined either as ‘fit as moderator’ or ‘fit as matching’. In the moderator approach, the focus is more on explaining variations in organisational performance from the interaction of organisational structure and context, and not necessary on understanding the correspondence between context and structure (Drazin & Van de Ven, 1985).

In the matching approach, however, fit is denoted “without reference to a criterion variable, although, subsequently, its effect on a set of criterion variables could be examined” (Venkatraman, 1989, p.430). Being different from fit as moderation, in this approach, a measure of fit between two variables is calculated independently of any performance implications. As such, the misfit (misalignment) variables are calculated and their relationship to performance is examined. For high performing firms, it is expected that the relationship between misfit and performance will be significant and negative (the greater the deviation, the lower the performance) (Drazin & Van de Ven, 1985).

In this study, fit is defined and conceptualised as matching in order to compare the relationship between performance and the misalignment of different theoretically predicted export mode portfolios of the firm.

As maintained so far, TCE theory posits that firms select the entry modes that provide the least (transaction) cost solution (Brouthers et al., 2003). Hence, TCE performance is a cost-inclusive performance. From this point of view, firms choosing a higher proportion of internalised export modes in their entry profile are expected to be more profitable than firms that do not. It is notable that TCE's central efficiency concern is to minimise cost of control in facing internal and external uncertainties. However, it ignores the fact that highly internalised entry modes are costly to establish and operate (Shervani et al., 2007). To operate integrated export channels, high investments are needed in employees, sales forces, different sorts of equipment and facilities (e.g. warehouses, delivery vehicles, software), and services (Harrigan, 1983; Shervani et al., 2007). Subsequently, the cost involved in these investments can affect the bottom line profit of the firm in a negative way.

Competing with TCE internalisation and ownership recommendations, real options theory challenges some of the hidden assumptions in profit enhancement benefit of the TCE theory. RO appreciates irreversibility of the investment decisions (Dixit & Pindyck, 1994). It recognises that the downside risk of investments (internalised modes) could be greater than TCE assumes. Relying on the option to invest instead of investment, RO maintains that investments do not have to be made immediately. Delay in investment is not a loss. In fact, it limits the irreversible cost of investment in uncertain environments (Dixit & Pindyck, 1994). By suggesting not investing in exogenous uncertain markets and highlighting the benefit of Joint-Investments in facing endogenous uncertain markets, RO-based export mode portfolio certainly looks different from TCE-based export mode portfolio.

Thus, it is expected that moving beyond TCE, and taking into account the irreversibility, delay ability, and uncertainty of investments, RO-based decisions might be more cost-effective. Therefore, firms arranging their portfolio of entry modes based on an RO viewpoint may benefit from higher profitability compared to more traditional decision-making models (Brouthers et al., 2008). In other words, the TCE-based export mode portfolio's misalignment might not reduce profit

performance, but the RO-based export mode portfolio's misalignment can reduce profit performance of the export firm.

Therefore, it is hypothesised that:

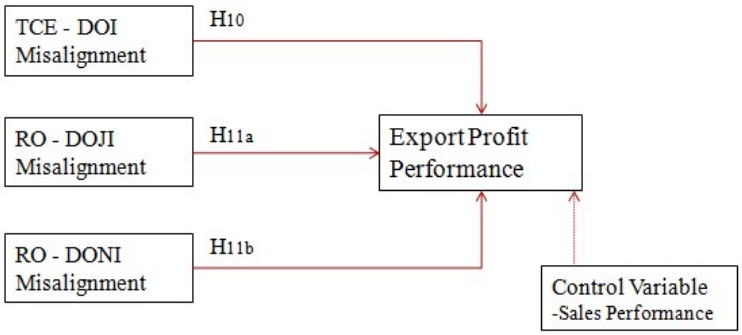
H10: *Firms structuring their export mode portfolio predicted by RO model(s) have higher levels of profit performance than firms structuring their export mode portfolio predicted by TCE model. As such:*

H10a: *Firms with high degree of internalised export mode portfolio prescribed by the TCE do not outperform those with portfolio not prescribed by the TCE. Thus, Degree of Internalisation (DOI) misalignment is positively related to export profit performance.*

H10b: *Firms with high degree of Joint-Investment export mode portfolio prescribed by the RO do outperform those with portfolio not prescribed by the RO. Thus, Degree of Joint-Investment (DOJI) misalignment is negatively related to export profit performance.*

H10c: *Firms with high degree of No-Investment export mode portfolio prescribed by the RO do outperform those with portfolio not prescribed by the RO. Thus, Degree of No-Investment (DONI) misalignment is negatively related to export profit performance.*

Figure 3.8 Theoretically predicted export mode portfolio misalignment and export profit performance



As discussed, TCE and RO are related to the cost-inclusive (profit) performance. However, export sales performance is considered as a control variable in this model as a predictor of profit performance.

3.8 Chapter summary

In this chapter, first, a holistic conceptual framework of the current study based on two theories of TCE and RO was presented. This conceptual framework consists of different sub-models underpinned by different theoretical approaches.

The first sub-model examines the relationship between core TCE variables, namely internal uncertainty, external uncertainty and asset specificity and the degree of internalised export entry modes in the export mode portfolio of the firm. It was proposed that TCE variables are positively related to the degree of internalisation.

The next two models are based on the RO approach, and examine the relationship between RO core variables, namely exogenous and endogenous uncertainty, and investment irreversibility, with Degree of Joint-Investment and Degree of No-Investment modes in export mode portfolio of the firm. Mainly, it was proposed that Degree of Joint-Investment in an export mode portfolio of the firm is expected to increase as the endogenous uncertainty increases, and Degree of No-Investment in an export mode portfolio of the firm is expected to increase as the exogenous uncertainty increases. In addition to general control variables (firm size, export experience, scope of international business, and TCE mindset) that all models share, each model controls for the rival theory variables.

Finally, applying the concept of fit underpinned by contingency theory, it was proposed that firms structuring their export mode portfolio predicted by RO model(s) have higher levels of profit performance than firms structuring their export mode portfolio predicted by TCE model.

The following chapter describes the methodology used to implement the study.

Chapter 4: Research Methodology

4.1 Introduction

This chapter outlines the research design of the current study. Research design refers to a plan for a research study and includes the outlined logic and structure for collection, measurement, and analysis of data (De Vaus, 2001). Subsequently, this chapter specifies the main research design issues in five sections. First, comparing different research designs, the use of cross-sectional design for this study is explained. Second, the pros and cons of different survey administration methods are discussed, and the choice of both interview and mail survey for the purpose of this study is justified. The third section consists of all aspect of questionnaire design. Within this section, scale development strategy is also explained in detail. These sections are followed by both pre-test and main survey designs and processes. The final part illustrates and justifies the analytical procedure used in establishing dimensionality, reliability, and validity of the measures developed for this study.

4.2 Research design

A strategic choice of research design should come up with an approach that ensures research questions will be addressed in the best possible way, within the given research constraints, mainly regarding time and budget (Ghauri & Grønhaug, 2005).

There are different ways of structuring research designs to help to draw convincing causal inferences from the research (De Vaus, 2001). Four prominent research designs are experimental design, cross-sectional, longitudinal, and case study (De Vaus, 2001). While case studies and experimental research designs are widely used by researchers, according to Iacobucci and Churchill (2009), cross-sectional and longitudinal designs are more commonly used in marketing research. However, in terms of the time dimension associated with each study, the difference between cross-sectional and longitudinal designs must be distinguished (Wilson, 2014).

4.2.1 Longitudinal versus cross-sectional design

Since causes cannot be observed, they must be inferred from observations (De Vaus, 2001). A longitudinal design is intended to observe and study a particular case(s) over a period of time so that the researcher is able to examine changes that take place over a specific time span (De Vaus, 2001). This design represents a sequence of events and typically is used in business and management studies to map changes (Bryman & Bell, 2015). Since the longitudinal design gives the researcher insight into the time order of variables, it is discussed that it may be more able to allow causal inferences to be made (Bryman, 2016).

The cross-sectional design, on the other hand, involves the study of a number of cases only at a single point in time, with only one observation per study. The cross-sectional design is often called a survey design (Bryman, 2016). For these studies, data on the variables of interest is collected simultaneously and the researcher does not know what happens before or after the snapshot is taken (De Vaus, 2001). For this reason, cross-sectional design studies rely on variation in the dependent variable across the cases in a sample, and therefore causal relationships are more difficult to establish.

Although longitudinal data is considered more comprehensive and stronger for making causal inferences, the marketing and specifically 'entry mode' literature lacks these types of studies (Brouthers & Hennart, 2007; Canabal & White III, 2008). One of the main reasons for this shortage is the difficulty of the scholars in obtaining longitudinal data. In fact, in addition to being time-consuming and costly, there is a number of methodological and design issues that each longitudinal study may face. Sample attrition is probably one of the most frustrating issues faced by longitudinal researchers. It is highly likely that some of the respondents might not be able to follow the study for different reasons and they withdraw from the study before its completion. In addition to participants, researchers engaged in the study also need to be committed over a long time and changing any of these can have a negative impact on the research findings and consequent bias (Wilson, 2014). This issue could be addressed prior to conducting the study mainly by determining the optimal number of observations and their intervals (Ployhart & Vandenberg, 2010). Longitudinal research might also suffer from weaker causal attributions if the

designed time intervals between the baseline study and final study are very long. It is possible that during lengthy intervals other intervening variables could influence the relationships in the study (Oppenheim, 1992).

Another potential threat to the validity of the longitudinal study is the “testing [effect], where performance by participants is enhanced due to practice or familiarity with the measurement tools and/or procedures” (Teti, 2008, p.10). As a result of this unintentional practice, the sample becomes less representative of the underlying population and thus less reliable. Data analysis complexities and lack of clear guidance in conducting this research design compared to cross-sectional surveys also discourage researchers (especially doctorate researchers with limited time and budget) to consider longitudinal designs (Bryman & Bell, 2015).

On the other hand, although the cross-sectional design is straightforward and can be completed over a relatively short period and with less cost compared to a longitudinal study, the validity of this research is becoming increasingly questioned by scholars. Because cross-sectional data are often collected from single respondents at one point in time, they are assumed to be prone to common method variance (CMV) bias and suffer from a limitation in causal inferences (CI) (Rindfleisch et al., 2008).

This concern is stronger when both the dependent and independent variables are perceptual measures (Chang, Van Witteloostuijn & Eden, 2010; Morgan et al., 2004; Podsakoff & Organ, 1986; Podsakoff, MacKenzie, Lee & Podsakoff, 2003). In such cases, self-report data can create false correlations if the respondents have the propensity to provide consistent answers to survey questions that are otherwise not related. Nevertheless, multiple respondent surveys are rare and almost always occur in studies of large firms rather than small firms where only one person is in charge of most decisions (Ganesan, Malter & Rindfleisch, 2005).

Moreover, using multiple sources of data to address CMV is also not always feasible due to cost, time and data accessibility limitations. To avoid CMV, using alternative longitudinal surveys are also recommended by scholars (e.g. Ostroff, Kinicki & Clark, 2002; Podsakoff & Organ, 1986). They highlight that being extended over a longer period of time and the “temporal separation [between the data collection] will reduce

the cognitive accessibility of responses to predictors collected at an earlier time, which in turn reduces the likelihood that these earlier responses will influence subsequent responses to outcome variables" (Rindfleisch et al., 2008, p. 263). However, as discussed earlier, this solution can also be associated with some limitations and will not be employed in this current research.

In order to decrease the risk of CMV bias and enhancing CI, cross-sectional surveyors are encouraged to apply some *ex-ante* procedural remedies in the design stage (Guide Jr. & Ketokivi, 2015; Podsakoff et al., 2003).

In this study, in order to minimise the common method variance issue, as advised by Podsakoff et al. (2003), three approaches in designing the questionnaire were considered: (1) varying the scales anchors and response format for different constructs; and (2) reverse coding some items in the questionnaire. In addition, there are also several statistical remedies to detect and control for any possible common method variance. Following previous studies (e.g. Chang et al., 2010; Podsakoff et al., 2003) an *ex-post* examination, namely Harman's one-factor test, was carried out by modelling common method bias factors in the measurement models to assess and attenuate for potential method bias issues (see section 4.7.3.5 for a detailed discussion).

4.3 Survey administration method

The cross-sectional survey was justified as an appropriate design for investigation of the research problems of this study. The next concern to address is choosing an appropriate method for collecting data. Essentially, survey data collection methods can be categorised into two major groups of interviewer-administrated and self-administered questionnaires (Hox, DeLeeuw & Dillman, 2008). Interview surveys can be conducted either face-to-face or over the telephone. The most well-known and well-used self-administered survey is the mail survey. However, computerised versions of the self-administered surveys (online survey and email survey) are rapidly becoming popular amongst researchers (Dillman, 2011).

Each of these data collection methods is associated with advantages and disadvantages. Several aspects come into play in choosing the data collection

method, including: administrative and resource issues, namely cost and length of data collection period, geographic distribution of the sample; questionnaire design issues, such as length of the questionnaire, complexity of the questionnaire, sensitivity of the topics; and data quality issues, specifically response rate and measurement errors (Czaja & Blair, 1995). In the following sections, the interviewer-administrated questionnaires are evaluated in relation to self-administered questionnaires against the different criteria as above.

4.3.1 Administration and resource issues

4.3.1.1 Cost and duration of survey

Cost is a major disadvantage for face-to-face surveys. The major costly elements in this method are that it requires skilled interviewers and a supervisory network to collect high-quality data and to maintain quality control. Since the presence of an interviewer makes a difference in the quality of data and measurement error associated with that, training the interviewer plays an important role in achieving high quality data in interviewer-administered surveys (Bryman, 2016; Groves et al., 2009).

Although telephone interviewers also need training, the variety of skills they need to conduct the interview is less than those needed by face-to-face interviewers. Moreover, being in a centralised setting, cost of quality control and travelling is much less in telephone interviews (De Leeuw, 2008; De Leeuw, 1992). In terms of duration of the study, as can be expected, face-to-face surveys are highly time-consuming compared to the other modes. In addition, the cost of travelling for a face-to-face interview could also be considerably higher when respondents are spread over a wide geographical area.

Self-administered surveys demand less cost in terms of travelling and quality control. In particular, the popularity of online surveys is growing substantially, mainly because a large number of completed questionnaires can be collected in a very short time and at low cost (Dillman, 2011). Moreover, to enjoy the benefits of self-administered surveys a well-designed questionnaire and pre-notifying respondents before conducting the study can increase both response rate and response quality (Churchill & Iacobucci, 2005).

4.3.2 Questionnaire design issues

4.3.2.1 Questionnaire length

Face-to-face interview has the most potential when lengthy questionnaires are being conducted. The physical presence of the interviewer makes the respondent complete a long questionnaire and eventually produces a higher response rate. Hanging up in the middle of a telephone interview, or terminating and discarding a mail or an internet survey is much more likely, especially when the survey is long (De Leeuw, 2008). Increase in the non-response rate is the main weakness of long questionnaires. As a rule of thumb, successful telephone interviews are those with an average length of 20-30 minutes. According to Dillman (1978, p.55), mail questionnaires of up to 12 pages which contain less than 125 items can be used without adverse effects on the response rate. Blair, Czaja and Blair (2013) emphasised that internet surveys must be kept short with an average of 10-15 minutes completion time.

4.3.2.2 Question format and complexity

Dealing with complex questions is much easier for respondents when an interviewer is administrating the questionnaire. Moreover, the interviewer can also spot if the respondent has misunderstood the question and help to clarify the question while being careful not to lead respondents to a particular answer (Brace, 2008). However, compared to telephone interviews, face-to-face interviews are more flexible as both channels of communication (i.e. visual and auditory) are available for information transmission and feedback. A researcher can benefit from designing the questionnaire using different measurement instruments or a complex questionnaire with navigating questions, since a well-trained interviewer is present and can provide detailed explanation and clarification for the respondent in case any ambiguity arises (De Leeuw, 2008).

In this regard, telephone interviews are relatively inflexible, as the visual indications are absent in this form of data collection. When listening to the questions read by the interviewer, respondents have to rely on their memory to answer; for this reason, questions must be short and simple when conducting interviews over the telephone (De Leeuw, 2008).

In handling the complexity of a questionnaire, mail surveys and internet surveys both benefit from visual aids and graphical language. Moreover, to give a more accurate response to difficult questions, respondents to a self-administered questionnaire have the advantage of postponing the response until they get exact information (Dillman, 2011).

4.3.3 Data quality issues

Response quality is determined by how carefully the respondent completes the process of understanding the question, retrieving information, integrating information to form an overall judgement and formulate a response (Lindhjem & Navrud, 2011; Tourangeau, Rips & Rasinski, 2000). Choosing different modes of data collection is expected to affect data quality. Conducting a meta-analysis on 67 papers comparing different data collection modes, De Leeuw and Desiree (1992) found that major differences in data quality are found between modes with and without an interviewer. As described over the following sections, the 'interviewer effect' can affect the data quality both positively and negatively.

4.3.3.1 Response rate

In interview-based studies, a well-trained interviewer has the opportunity to persuade the respondent to complete the survey, clarify the questions and provide additional information when necessary (De Leeuw & Hox, 2008). In the case of face-to-face interviews, the non-verbal communication also helps to maintain the flow of information. Accordingly, face-to-face and telephone surveys typically yield a higher response rate than mail and online surveys (De Leeuw & Hox, 2008; De Leeuw, 2008).

To achieve a high response rate in self-administered surveys, however, different efforts are required mainly at the contact phase of the study and in the design of the questionnaire (De Leeuw & Hox, 2008). The importance of respondent-friendly questionnaire design using graphical language, in addition to verbal and numerical labels in achieving higher response rate in online questionnaires, has been emphasised by Dillman (2011).

4.3.3.2 Survey satisficing

Satisficing is a cognitive process involved in answering survey questions that entails minimising the amount of effort involved (Bryman, 2016). It is very possible that some respondents who initially agreed to participate in a study do not feel committed to maintain a high response quality as they progress in completing the survey due to task difficulty and lack of motivation (Bryman, 2016; Holbrook, Green & Krosnick, 2003; Krosnick, 1991). Two forms of satisficing are non-differentiation responding and no-opinion responding where the respondent consistently agrees or disagrees with a set of question or chooses neutral or 'do not know' answers amongst the offered options (Krosnick, 1991). Face-to-face interview is believed to be best conducting mode in order to limit the satisficing effect in surveys. Drolet and Morris (2000) suggested that face-to-face contact improves cooperation on complex tasks. In fact, the physical presence of the interviewer and specifically non-verbal communication between respondent and interviewer improves cooperation. In telephone interviewing, however, the likelihood of the satisficing issue increases as respondents are not observed and they may devote less time and effort to generating thoughtful and careful answers (Holbrook et al., 2003).

In mail and online surveys, the respondent is the sole controller of the response quality and they may not expend enough effort to come up with the best response for the questions. In particular, participants in online surveys are more prone to the satisficing issue as they are generally less patient with the web than they are with paper; they may have more screens open at one time, and jumping from one topic to another could lead to a more superficial cognitive process (De Leeuw & Hox, 2008).

4.3.3.3 Social desirability bias

The limited effective impact of the interviewer in telephone surveys relative to face-to-face interviews can also have a positive influence on the respondent by giving them personal space (De Leeuw, 1992). Self-administered surveys, on the other hand, introduce a greater feeling of personal space and anonymity that results in reducing the tendency of respondents in the associated self-presentation and social desirability effects (Bryman, 2016; De Leeuw, 1992). The positive effect of interviewer absence in self-administered surveys, especially online surveys, has

been reflected in recent research studies (e.g. Duffy, Smith, Terhanian & Bremer, 2005; Newman et al., 2002; Taylor, Krane & Thomas, 2005). In their comparative study, Duffy and colleagues (2005) reported that participants in online surveys demonstrated the greatest honesty in answering questions prone to social desirability bias. Moreover, online surveys have been seen by respondents as the most anonymous form of survey (Brace, 2008; Szolnoki & Hoffmann, 2013).

4.3.3.4 Variability effect

Although the assumption is that interviewers do the same job, their characteristics, the way they read and interpret questions, and their mood may vary from one interviewer to another (Brace, 2008; Bryman, 2016). As a result, this interviewer variance may add some additional variance to the sample responses. Given the characteristics of face-to-face interview and the complex task of the interviewer compared to telephone interviews, it is likely that interviewers become the source of measurement error. In order to minimise the interviewer error, a researcher is responsible for constructing the questionnaire that is suitable for a standardised interview (Brunton□Smith, Sturgis & Leckie, 2016; Loosveldt, 2008). Moreover, using alternative self-administered questionnaire could be a significant advantage, specifically for studies that are likely to suffer from different types of interviewer effect (Duffy et al., 2005).

4.3.4 Study survey administration method

Going through the comparative strengths and weaknesses of different survey administration methods, and considering the available resources to conduct the fieldwork for the current study, an interview-based survey method was chosen mainly to benefit from a high response rate. The questionnaire for this study is very long – 23 pages – and includes many skipping questions, which adds to its complexity. As mentioned earlier, interview surveys guarantee a higher response rate. However, due to the geographical spread of the sample, high cost, and limited time, a telephone interview method was selected. This survey was conducted by a marketing research agency in China, with a group of well-trained interviewers so the shortcomings associated with this method were not a big issue in this research.

The study's pilot survey, however, was conducted using mail survey. There are a number of reasons supporting employing mail survey rather than more popular online/ email surveys for this occasion. First is the possibility of low response rate associated with online data collection. For instance, in some companies, there are strict policies against opening email attachments due to the risk of virus infection, so that the response rate will be affected directly. In addition, as Stern, Bilgen and Dillman (2014) suggested, an even bigger challenge in conducting online survey is that the percentage of people using their smartphone and other mobile devices to check their emails and browse the internet is rising significantly. Nevertheless, when they receive the online survey request on their mobile devices, completing the questionnaire will be almost impossible on such a device. Hence, they may forget to reopen and answer it on their laptops, should they open the email on their mobile device first. Moreover, asking questions on a smart device requires utilizing simple formats (Stern et al., 2014). Consequently, some traditional question formats may not be usable. It becomes an important concern for this study, acknowledging a significant portion of the study sample (export managers) are likely to travel frequently for business and rely on mobile devices to check their emails (Buskirk & Andrus, 2014; Stern et al., 2014).

Given the limitation associated with the online survey method, and emphasising the advantages of the mail questionnaire, the data for the pre-test phase of the study was collected through mail survey.

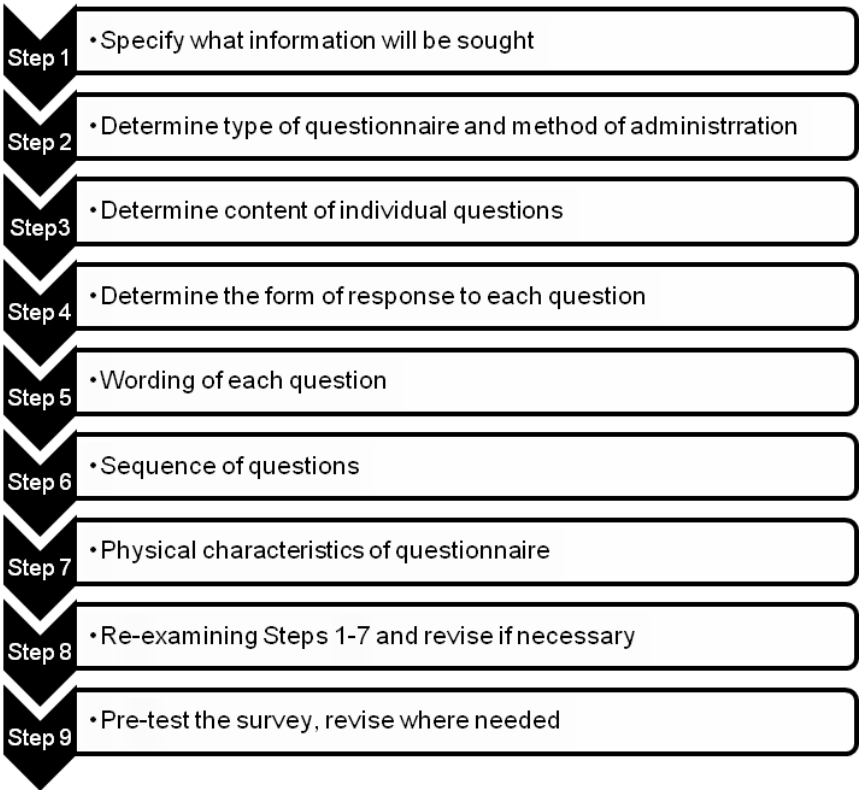
More detail on the sampling frame and sample size for the pre-test and the main survey is given in sections of 4.5 and 4.6 respectively.

4.4 Questionnaire design

This section presents the procedures for developing and designing the questionnaire. The role of the questionnaire is to elicit the information that is required to enable the researcher to address the objectives of the study (Brace, 2008). Designing the questionnaire is an important element in conducting successful data collection. As represented in Figure 4.1, to design the questionnaire for the current study, the procedure suggested by Iacobucci and Churchill (2009) was followed. However, as mentioned by the authors, this picture presents a general procedural

template and the steps might be modified via some iteration and looping where needed. Step two of the questionnaire design (see Figure 4.1), demonstrating the alternative “type of the questionnaires and method of administration” is covered in section 4.3. Moreover, since step one is particularly interconnected with steps three, four and five (content of individual questions, a form of response to each question, and wording of each question), they are covered in section 4.4.1. Within this section, the procedure of developing new scales will also be discussed. Beside the content of the questions, designing physical characteristics of the questionnaire has also been emphasised and discussed (see section 4.4.2). As specified in Figure 4.1, to evaluate the questionnaire in terms of its accuracy and consistency, the final step before conducting the main survey is to pre-test the designed questionnaire.

Figure 4.1. Procedure for developing a questionnaire (Iacobucci & Churchill, 2009)



4.4.1 Information sought

The conceptual model and hypothesis framed in the earlier stage of the study determines what information will be sought and from whom (Iacobucci & Churchill, 2009). The measurement scales for the constructs of this study were gathered from two different sources. After conducting an extensive literature review, sufficient knowledge on the availability and appropriateness of the measurement scale was provided. Where possible, the available scales were used directly or were partially modified if necessary to be compatible with the content of the current study. However, new scales were developed when 'off-the-shelf' measurement tools were either inappropriate, inadequate or unavailable (DeVellis, 1991; Hinkin, Tracey & Enz, 1997). A list of the key constructs for this study and their measurement scale sources is given in Table 4.1 (a) and (b). The following sections represent detailed information on the measures of the study. Nevertheless, the theoretical procedure undertaken for developing new scales is provided in the subsequent section (see section 4.4.1.2).

Table 4.1 (a) Constructs of interest with existing measurement scale

Measurement scale borrowed from export literature
Export mode portfolio • *Company owned Sales Force and company owned distribution division (Establishing sales subsidiary)* • *Company owned Sales Force (no owned overseas investment or distribution division)* • *Contractual arrangement whereby some export functions are performed internally and others are performed by outside agents* • *Independent distributors who take ownership and perform all contractual functions*
Asset Specificity (R&D expenditure)
Behavioural Uncertainty
Export Performance • *Sales performance* • *Profit performance*
Firm Profile Information • *Total employee number* • *Business experience* • *International experience* • *Total annual turnover* • *Export destinations* • *Industry characteristics* • *Size of export sales* • *Business type* • *Customer groups* • *Regions served*

Table 4.1 (b) Constructs of interest with newly developed measurement scale

Newly developed measurement scale
Endogenous Uncertainty • *Cultural uncertainty* • *Technological uncertainty* **Exogenous Uncertainty** • *Investment uncertainty* • *Demand uncertainty*
Investment Irreversibility
Partner Uncertainty
TCE mindset
Asset specificity (Export Marketing Capability)

4.4.1.1 Measurement scales for constructs of interest

Newly developed measurement scales

Cultural uncertainty

In a broader entry mode literature, cultural uncertainty has often been measured as cultural distance, using measures derived from Hofstede's cultural dimensions (Hofstede, 1980; Hofstede, 2001). The most frequently used measure for cultural distance is a composite index created by Hofstede (2001). For each country, this index measures the deviation along each of Hofstede's four cultural dimensions (i.e. uncertainty avoidance, individuality, power distance, and masculinity–femininity) from the score of a given focal country (Cuypers & Martin, 2010; Sanchez-Peinado et al., 2007).

The critique for using this measure for the current study is twofold. First, it is not conceptually fit for the construct of interest. While cultural distance might be a source of cultural uncertainty (Cuypers & Martin, 2010), being culturally distant does not necessarily mean being culturally uncertain. Moreover, referring to Hofstede's indices of cultural distance, Kogut and Singh (1988) also highlighted that using measures of national cultural attitudes, which were developed for other purposes, might not be appropriate and valid for a firm level study. Second, the unit of analysis in this study is firm-level (and not venture-level) which accounts for the export mode portfolio of the firm being most probably based on more than one country. Thus, even if this research were to use this index measure for cultural uncertainty, it would not be feasible due to the multi-country nature of assessment.

Lacking a clear-cut definition and measurement instrument for cultural uncertainty, it was important to develop a new measure for this construct. Accordingly, in the current study, cultural uncertainty is defined as 'not knowing how to engage with other businesses and customers in foreign markets, because of the cultural differences'. This measure is believed to capture the perceived cultural uncertainty from a person who is in charge of making strategic export decisions, regardless of general country level of cultural differences. For example, it could be the personal experience or cultural background of the decision maker that results in different levels of cultural uncertainty, not the country where the firm is established.

Consequently, cultural uncertainty was measured by three items. As can be seen in Table 4.2, participants were asked to rate the cultural uncertainty they experienced in their export ventures. In asking these questions, respondents were provided with examples of cultural factors including customs, practices and norms. All the items were measured on a seven-point Likert scale, ranging from 1 = “Not at all” to 7 = “To an extreme extent”.

Table 4.2 Cultural uncertainty scale

Construct	Measurement items
Cultural Uncertainty	Consider ALL your export ventures. To what extent have you experienced the following over the last 3 years? (1 = ”Not at all”; 7 = “To an extreme extent”) • Cultural factors (e.g. customs, practices, and norms) have been hard to predict in our export ventures. • We have experienced uncertainty about the cultures in our export ventures. • We have been uncertain when it comes to understanding the cultures of our export ventures.

Technological uncertainty

In marketing and international business, technological uncertainty is mostly associated with technological changes in industries (Folta, 1998). For example, Brettel et al. (2010) defined technological uncertainty as “the difficulty to predict accurately the technological requirements in a relationship between two parties as a result of general technological developments or unpredictable changes in the specifications of components or end product”. However, they measured it by developing a scale assessing the intensity of the technological changes both in the industry and in the product features, rather than the unpredictability of the technological change. In the current study, technological uncertainty was defined as the extent to which the shape of future technology in the industry has been uncertain. To measure this construct, a four-item scale was developed (see Table 4.3). Respondents were asked to rate their degree of agreement with the statement items on a seven-point scale ranging from 1 = “very strongly disagree” to 7 = “very strongly agree”.

Table 4.3 Technological uncertainty scale

Construct	Measurement items
Technological Uncertainty	Consider ALL your export ventures. Over the last 3 years, what number best represents your levels of agreement with the following? (1 =”Very Strongly Disagree”; 7 = “Very Strongly Agree”) • It has been difficult to predict the future direction of technological changes in this industry. • In the industry that we are doing business in, the trajectory of technology advances has been unpredictable. • The shape of future technology in this industry has been uncertain. • Technological developments in our industry have been unpredictable.

Demand uncertainty

Demand uncertainty and market uncertainty are defined and used interchangeably in the marketing literature. In this study, demand uncertainty is defined based on the definition of Taylor (1998) as “the extent to which future sales of a firm’s products or services in the host country are difficult to predict”. Taylor (1998) used a single item to measure demand uncertainty. In addition to this single item, this study adapts two more measures from the study by Brettel et al. (2010). However, the wording for all the items was changed to be compatible to the context of this study. As illustrated in Table 4.4, all items comprising the demand uncertainly scale were negatively worded and measured on a seven-point Likert scale, with anchors ranging from 1 = “not at all” to 7 = “to an extreme extent”.

Table 4.4 Demand uncertainty scale

Construct	Measurement items
Demand Uncertainty	Consider ALL your export ventures. To what extent have you experienced the following over the last 3 years? (1 =”Not at all”; 7 = “To an extreme extent”) • Sales volumes in our export ventures have been easy to predict. • There has been little uncertainty in our estimates of our future sales volumes in our export ventures. • We have been certain when it has come to forecasting our sales figures in our export operations.

Investment uncertainty

In the extended international marketing literature, investment uncertainty is measured using a multidimensional measure capturing the stability of the political, social and economic conditions, the risk of repatriating income and the risk of government actions against the firm (e.g. Brouthers et al., 2008; Brouthers & Brouthers, 2003; Brouthers et al., 2003).

In this study, investment uncertainty was considered as an aggregated entity and a reflective construct, defined as "the extent to which predicting what would happen to investments in the export ventures has been difficult". Three items were developed using a seven-point Likert scale, ranging from 1 = "not at all" to 7 = "to an extreme extent".

Table 4.5 Investment uncertainty scale

Construct	Measurement items
Investment Uncertainty	Consider ALL your export ventures. To what extent have you experienced the following over the last 3 years? (1 = "Not at all"; 7 = "To an extreme extent") • We have felt uncertain when making decisions about whether to invest in our export ventures. • Predicting what would happen to investments in our export ventures was difficult. • We felt that investing in resources in the countries of our export ventures could be quite risky.

Investment irreversibility

Investment irreversibility is associated with the risk that an investment cannot be easily redeployed, or can only be sold at a discount (Folta & O'Brien, 2004; Folta et al., 2006; Kogut & Kulatilaka, 2001). It is expected that, in the presence of high investment irreversibility, the firms will be careful in evaluating the uncertainty level of the investment opportunity (Jiang et al., 2008; Pindyck, 1991).

Investment irreversibility and asset specificity are sometimes used interchangeably in the literature (König, 2009; e.g. Wooster et al., 2016). However, in this study, investment irreversibility is specifically defined as the extent to which the investment made in a foreign country, including both tangible and intangible, could not be recouped without incurring cost. Based on this definition, three items were

developed to measure the investment irreversibility scale on a range of 1 to 7 (see Table 4.6).

Table 4.6 Investment irreversibility scale

Construct	Measurement items
Investment Irreversibility	When you enter export ventures, you possibly invest in them in several ways such as investing in training, skill development, physical facilities, marketing, and so on. If you were to withdraw from exporting altogether, how much would the following statements be true? (1 ="Not at all"; 7 = "To an Extreme Extent") • We would lose a lot of investment made in these ventures. • It would be impossible to recoup the investment made in these ventures. • The resources invested in them could not be rechannelled to other projects.

Partner uncertainty

Some firms might decide to share their export marketing activities with other firms (partners) in a host country. Partner uncertainty is associated with the extent to which they feel certain about the potential partner to behave opportunistically if they are not controlled. In this study, partner uncertainty is defined slightly different from behavioural uncertainty (see Table 4.12). While partner uncertainty aims to capture the opportunistic threat felt from the potential partner before deciding to make the partnership, behavioural uncertainty reflects the difficulty of measuring performance of sales if partners are not controlled and monitored. As illustrated in Table 4.7, to measure this construct, three items were developed using a seven-point Likert scale, ranging from 1 = "not at all" to 7 = "to an extreme extent".

Table 4.7 Partner Uncertainty scale

Construct	Measurement items
Partner Uncertainty	Over the past 3 years, when thinking about the possibility of sharing export marketing responsibilities with other businesses, we felt that other businesses might... (1 ="Not at all"; 7 = "To an Extreme Extent") • allow their self-interests to override the joint interests of our collaboration. • try to behave opportunistically. • try to take advantage of the relationship.

TCE mindset

As discussed in chapter two, internalising export market operations vs. externalising them make vs. buy) is a central concept in TCE theory, and a well-discussed concept in export entry decisions. Drawing on relevant literature (e.g. Anderson, 1985; Brettel, Engelen & Müller, 2010; Gatignon & Anderson, 1988; Khemakhem, 2010; Klein et al., 1990; Klein & Roth, 1990; Merino & Salas, 2002; Rialp et al., 2002), TCE mindset is defined as the extent to which the firm's exporting activities and operations are controlled, and performed internally within the firm.

To measure the percentage of the marketing internalisation the Juster scale was used. This scale consists of an eleven-point numerical scale, ranging from 0 to 10, each point associated with both a verbal and a numerical statement (Juster, 1966). The Juster scale was found to be a suitable measure of internalisation as it provides the respondents with the opportunity of rating their internalisation degree from 0 to 100 percent. Accordingly, this construct was measured by three items. As can be seen in Table 4.8 all the items were measured on the eleven-point Juster scale, ranging from 0 = "Almost none<1%"; 10 = "Almost all>99%".

Table 4.8 TCE mindset scale

Construct	Measurement items
TCE-mind set	Across your export ventures, you might share marketing responsibilities (i.e. sales, pricing, distribution, advertising, commercializing, retailing, market growth, marketing strategy, etc.) with other entities, like agents, distributors, partners and various collaborations. Please answer the following questions. (0 = "Almost none<1%"; 10 = "Almost all>99%") • What percentage of marketing do you control in your export operations? • What percentage of marketing are you actively doing yourself in your export countries? • What percentage of marketing activities across all your ventures does your firm take responsibility for?

Asset specificity: Export marketing capabilities

Export marketing capability is a firm-specific capability and defined as the ability of the firm to "turn an understanding of export customers' needs into a strategy for competitive advantage". It reflects the firm's specific knowledge, and its ability to learn and utilise market knowledge. As highlighted by Carroll and Teece (1999, p.91), asset specificity could describe a variety of specific investment "including

both specialized physical and human capital, along with intangibles such as R&D and firm-specific knowledge or capabilities." Thus, in the view of TCE, possessing strong export marketing capability represents a high level of dedicated capital, specific to a market(s) (He et al., 2013). In the current study, moving from the traditional most common measure of asset specify (i.e. R&D expenditure), the export marketing capability measures were developed to reflect different aspect of asset specificity. As illustrated in Table 4.9, three items were developed using a five-point Likert scale. Respondents were asked to rate the strength of their marketing capability from 1 = “Capability Poorly Developed” to 7 = “Capability Highly Developed”.

Table 4.9 Asset specificity: Export marketing capabilities scale

Construct	Measurement items
Asset specificity: Export Marketing Capabilities	Please indicate the extent to which your firm has displayed real competency on the following fronts over the past 3 years (1 = ”Capability Poorly Developed”; 5 = “Capability Highly Developed”) • Turning an understanding of export customers’ needs into a strategy for competitive advantage. • Ensuring that business objectives are driven primarily by export customer satisfaction. • Creating export customer value. • Responding to changes in foreign customers’ product or service needs.

Borrowed and/or adapted measurement scales

Export Mode Portfolio

As discussed in the literature review chapter, to date, export entry modes have been conceptualised and categorised in different formats, and studied at the venture level. In this study, however, the export mode portfolio of the firm is under examination (see chapter three). Accordingly, export entry portfolio of a firm is defined as the extent of different export entry modes that a firm has used across all its export markets (in a three-year time span). Each firm has a unique combination of the type and extent of the entry mode they opt to operate their export marketing activities in its markets. The classification of export entry types in industrial and international marketing literature is inconsistent in terms of their definition and terminologies. Nevertheless, building on the previous export channel studies (e.g. Anderson &

Gatignon, 1986; Aulakh & Kotabe, 1997; He et al., 2013; Klein et al., 1990; Kogut & Singh, 1988), this study could distinguish between six types of export entry modes (see Table 4.10). In view of that, respondents were asked to consider all their total export activities and allocate an approximate percentage to each defined export entry type. The constant sum scaling was used to reflect the proportion of each export entry type in terms of their entire export marketing operation.

Table 4.10 Export mode portfolio scale

Construct	Measurement items
Export Mode Portfolio	Roughly how much of your firm's total export marketing operations (i.e. sales, advertising, distribution, pricing, etc.) are performed directly by: (Please note that the sum should be 100%) • People operating from your domestic office (and not travelling overseas). • People operating from your foreign offices and subsidiaries. • Other company employees (salaried sales reps) operating in your foreign markets. • Foreign sales agents. • Foreign importers and distributors. • Collaborations (e.g. Joint Ventures, piggy-backing, commercial franchising, or licencing).

Asset specificity: R&D expenditure

Williamson (1985) defines asset specificity as "durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated." Specific assets often involve proprietary knowledge and such knowledge needs to be protected from actual/potential competitors (Williamson, 1985). R&D expenditure is a common measure of asset specificity (Merino & Salas, 2002). Folta (1998), following other scholars (e.g. Armour & Teece, 1980; Caves & Bradburd, 1988; Gatignon & Anderson, 1988; Hennart, 1991; Levy, 1985), argued the degrees of R&D investment represent the levels of human and dedicated capital specific to a transaction. To this end, and following Brouthers et al. (2008) and Chang & Rosenzweig (2001), the relative firm-level R&D spending to industry-level spending is considered as a measure of the asset specificity of the firm. Hence, two items were used to measure asset specify (see Table 4.11). First, respondents were asked to quote "Approximately what percentage of total sales turnover was spent on R&D?" Then, in a different question, they were asked to rate the level of R&D expenditure in

their industry from 1 = ”extremely low” to 7 = “extremely high”. Consequently, the asset specificity for each firm will be calculated by dividing the firm R&D expenditure by the industry R&D expenditure.

Table 4.11 Asset specificity: R&D expenditure scale

Construct	Measurement items
Asset Specificity: R&D expenditure	Approximately what percentage of total sales turnover was spent on R&D? Overall in our industry … Companies’ R&D expenditure is: (1 = ”extremely low”; 7 = “extremely high”)

Behavioural uncertainty

Behavioural uncertainty, which is also referred to as internal uncertainty, is the extent to which it is difficult to assess performance (Williamson, 1981). In the channels context, the ability of the firm to determine what is contributing to sales with end customers is the key performance issue and is presented by behavioural uncertainty (Anderson, 1985). The measure of behavioural uncertainty is adopted from previous studies (Anderson, 1985; e.g. Brouthers et al., 2008; John & Weitz, 1988; Shervani et al., 2007). As illustrated in Table 4.12, respondents were asked to rate the difficulty of monitoring and evaluating the performance of their entire export sales activities over the last 3 years on a seven-point Likert scale, ranging from 1 = “has been difficult” to 7 = “has been easy”.

Table 4.12 Behavioural uncertainty scale

Construct	Measurement items
Behavioural Uncertainty	Monitoring and evaluating the performance of our entire export sales activities over the last 3 years… (1 = “has been difficult”; 7 = “has been easy”)

Firm performance

The common approach for assessing firm performance is to use ‘subjective’ measures (Brouthers et al., 2008; Brouthers & Brouthers, 2003). There are several factors that support the use of perceptual or subjective measures in the context of international marketing. First, these measures are cost effective; in essence, the subjective performance data can be collected through questionnaire and directly

assessed through statistical analysis tools. In addition, past studies reveal that some companies might not be willing to provide financial data of their foreign subsidiaries and openly respond to absolute values (Katsikeas, Piercy & Ioannidis, 1996). Moreover, some companies suffer from lack of available financial data. Furthermore, in export context research, the focus is on the international activity of the firm in which differences in accounting practices, financial reports and exchange rates may make it impossible to use financial 'objective' measures (Brouthers et al., 2003; Woodcock, Beamish & Makino, 1994); even if the data is translated, they may suffer from translation errors (Brouthers, 2002). Besides, the majority of the exporters are often small and medium size organisations which often do not have separate records for their exporting activities in particular (Lages, 2000).

Second, in the view of the firm, export performance could be a very complex factor since financial success for one company may be considered failure for another. This could explain why managers tend to use their own perceptions of performance rather than absolute objective numbers when making strategic decisions (Lages, 2000).

Taking into consideration the time frame (annual performance in the previous financial year) and the unit of analysis (export performance at the firm level/ performance of all the export ventures), this study captured performance of the export firms through subjective measures.

Export performance is a multidimensional construct. Two aspects of firms' economic achievement in their export markets include export sales and export profits. In the current study, as discussed in chapters two and three, the profit outcomes of the entry mode decisions are of interest, since both the RO and TCE theoretical frameworks are cost-based. However, as illustrated in the conceptual framework (see chapter three), sales performance is used as a control variable to predict profit performance.

Each dimension is measured against different satisfaction criteria (see Tables 4.13 and 4.14). Satisfaction is one of the most studied subjective performance variables in marketing, and is also well established in export marketing (e.g. Cadogan, Diamantopoulos & Siguaw, 2002; Lages, 2000; Shoham, 1998). In the current study, export profit is the main dependent variable and measured as overall satisfaction with export firm profit. Export sales measures are also comprised of overall export

sales satisfaction items. These items, as specified in Tables 4.13 and 4.14, were partly sourced from Cadogan, Diamantopoulos and Siguaw (2002) and the rest were newly developed for this study.

Table 4.13 Profit performance scale

Construct	Measurement items
Performance: Profit	Consider your firm's ENTIRE EXPORT OPERATIONS. For each of the following statements, please tick a box. • All things considered, we did well to achieve last year's export profit level (1 = "Very Strongly Disagree"; 5 = "Very Strongly agree") • Overall, our profit margin last year was… (1 = "Extremely Poor" ; 5 = "Exceptional") • How satisfied are you with your export profit for last year? (1 = "Strongly Dissatisfied"; 5 = "Strongly Satisfied") • In terms of our export profit objectives, last year's performance was… (1 = "Far Below Expectations"; 5 = "Far Above Expectations")

Table 4.14 Sales performance scale

Construct	Measurement items
Performance: Export sales	Over the past financial year, across the firm's entire export operations, how satisfied are you with … (1 = "Very Strongly Satisfied"; 7 = "Very Strongly dissatisfied") • Export sales volume • Export sales turnover • Export market share • Rate of new market entry • Export sales growth rate

Profiling variables

Profiling variables included questions about both the company operations and informant's characteristics. This information helps to draw a preliminary picture of the studied firms and respondents within the firms. Moreover, in the data analysing stage, this detailed information can help to interpret the result and discuss findings in more detail.

Firms' Characteristics

In total, respondents were asked to respond to 12 questions seeking information on the firm's operation in general and export activities in particular. Many of these variables are commonly used in international business and export research. However, in this research they are mainly sourced from Cadogan's (1997) PhD study. In addition to providing general information on firms' activities, some of these variables (e.g. firm size, experience, and scope of business) are considered as control variables in the main conceptual model of this study. Firm size is measured by the total number of full-time employees in line with previous studies (e.g. Brouthers et al., 2003, Brouthers et al., 2008). Some scholars (e.g. Balabanis & Katsikea, 2003) considered the firm's total annual turnover as an additional measure of firm size. Although respondents were asked to provide their annual turnover, firm size as a control variable was measured only using the number of employees, due to the possible inter-country differences in accounting standards (Brouthers, 2002; Gatignon & Anderson, 1988).

The market offerings were measured by asking respondents to provide information on the proportion of export sales generated by providing services to customers (Cadogan et al., 2002). Since the targeted firms in this study were manufacturing companies, we do not expect to see firms with 100 per cent service exporting activities. Additionally, respondents were asked to indicate the proportion of export sales generated through business-to-consumer and/or business-to-business to indicate the target customer group.

The questionnaire also assessed scale of the firm's export activities by measuring experience, scope, and degree of export activities. Two questions assessing general business experience (number of years firms have been in business) and particular export experience of the firm (number of years firms have been exporting) were included in the questionnaire. To evaluate the scope of the firm's export activity, in addition to measuring the number of countries firms exported to, respondents were asked to identify their firm's relative export share in different regions worldwide. As mentioned earlier, the firm's export experience, and the number of export countries were used as controls in the study model. To measure the degree of the firm's

involvement in the export activity, the percentage of annual sales that was accounted for by export sales was asked for.

It was also of interest to evaluate firms in terms of their export specificity by examining the existence of an export department in a firm and the number of staff involved in export activities. All the firm's characteristics, variables and items are provided in Table 4.15.

Table 4.15 Firms' characteristic variables

Variables	Measurement item(s)
Industry	In which industry does your company operate?
Firm size	Approximately how many full-time staff does your company employ on the home-country wage book?
	Approximately what was the annual sales turnover of your company?
Market offerings	On average over the past 3 years, approximately what percentage of your company's export sales was generated by … Physical products % Services % Total 100 %
Target customer group	On average over the past 3 years, approximately what percentage of your company's export sales was directly generated by … Business to Consumer sales % Business to Business sales % Total 100 %
Business Experience	Approximately how long has your company been in business?
Export Experience	Approximately how long has your company been exporting?
Scope	Over the last financial year, approximately how many countries did your company export to?
	What is the percentage of your company's exports to each region of the world? (Please note that the sum should be 100%) EU % Eastern Europe % North America % Mainland China % Other Asian Countries % South & Central America % Middle East % Australia/ New Zealand % Africa %
Degree	Approximately what percentage of your company's total sales turnover was generated by exports?
Export Specificity	Of this number (total full-time staff), approximately how many are directly involved in the company's export activities?
	Does your company have a separate formal export department? (Please tick one) No Yes

Key informants' status and knowledgeability

The very last part of the questionnaire seeks information about the respondents' status. Respondents were asked to indicate their job title, their position within the company and their role experience (see Table 4.16).

Table 4.16 Key informants' status

Variables	Measurement item(s)
Respondents' status	What is your job title?
	What would you consider to be your employment role? (please tick the appropriate box) Owner/CEO/Managing Director ☐ Senior Manager ☐ Middle Manager ☐ Junior Manager ☐ Other (Please specify) ☐
	How long have you been in your current role?
	Are you a person with responsibility for export decision making? (Please tick one) Yes ☐ No ☐
	How long have you been with your company?

Moreover, in addition to the steps taken to ensure proper selection of the key informants, a formal post hoc check was conducted on the knowledgeability of the respondents on the issues examined in the questionnaire. For this purpose, we asked survey respondents to rate their knowledge of their own firm's export operation in four separate questions on a seven-point scale with one being "Strongly disagree" to seven reflecting "Strongly agree" (see Table 4.17). The first two items were sourced from Boso's PhD (2011), and the next two items were borrowed from Morgan et al. (2003).

Table 4.17 Key informants' knowledgeability

Construct	Measurement items
Knowledgeability	Please indicate your agreement with the following statements. (1 = "Strongly Disagree"; 5 = " Strongly Agree") • This questionnaire deals with issues I am knowledgeable about. • My answers to the questions in the questionnaire are accurate. • I am competent to answer the above questions. • I am confident that my answers reflect the company's situation.

Other variables

A number of additional variables are included in the questionnaire for the purpose of future research and publications beyond the defined context for this study. These variables seek information on venture-level export entry decisions, environmental uncertainties and performance. Several additional variables capturing adaptation strategy and entrepreneurial orientation of the firm were included in the questionnaire. Further export firm performance variables and information on CSR and global marketing strategy of the firm are also amongst the extra sets of questions included in this questionnaire (see section 4.6 for more detail on the questionnaire).

4.4.1.2 New scale development procedure

As discussed in chapter 2, the real options theory and its underpinning constructs are quite new to the international marketing and business field. The current study is the very first one in the export context to employ this theory. As a result, the researcher was concerned that not only should the available measurements for these constructs be adopted to the export context, but also the new measures developed to capture and reflect the constructs of interests where needed. The same rationale was applied to the TCE-based variables, where the available measures did not satisfy the research objectives.

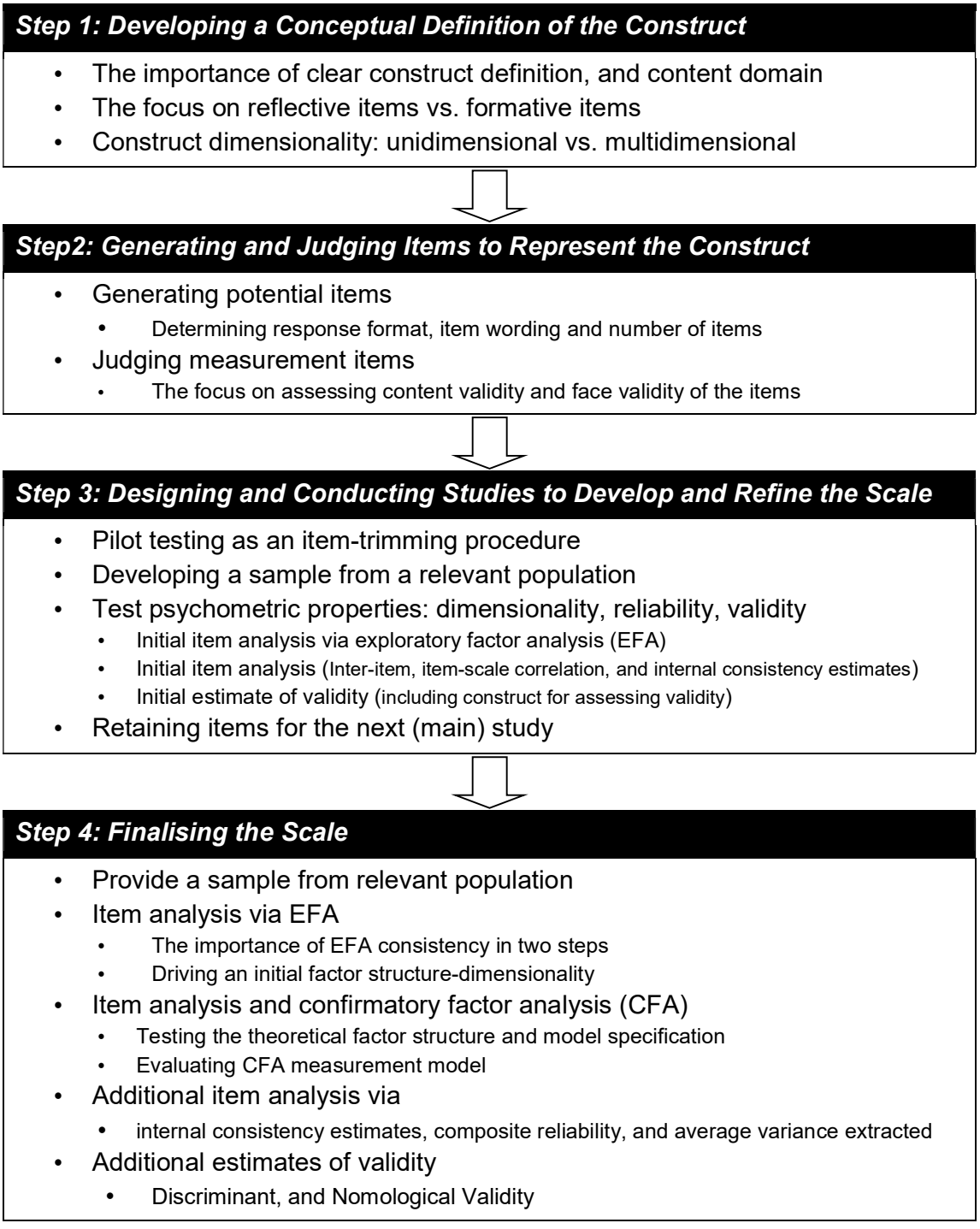
To develop new measurement instruments in this study, the principals proposed by Churchill (1979), Spector (1992), Hinkin (1997), Netemeyer et al. (2003), MacKenzie et al. (2011), and DeVellis (2012) were reviewed (see Table 4.18). However, this study mainly followed the four-step approach introduced by Netemeyer et al. (2003) as they seemed to be clearer in terms of instruction while being consistent with much of the extant scale development literature. As presented in Figure 4.2, scale development procedure for the current study included four major phases and each step is explained accordingly.

Table 4.18 Overview of the scale development procedures

Step	Churchill (1979)	Spector (1992)	Hinklin (1997)	Netemeyer et al. (2003)	Mackenzie et al. (2011)	DeVellis (2012)
1	Specify domain of construct	Define construct	Item generation	Define construct and content domain	Conceptual definition	Define construct and content domain
2	Generate sample of items	Design scale	Content Adequacy Assessment: *content validity by expert judgment or statistical analysis*	Generating and judging measurement item: *including face and content validity*	Generating items and examine content validity	Generate item pool
3	Collect data	Pilot test : *Small sample size to establish content validity*	Questionnaire administration: *inclusion of validation items to examine discriminant, convergent, and criterion-related validity*	Refining the scale in a pilot study: *initial EFA, internal consistency, validity*	Model specification: *reflective, formative, first order, second order*	Determine the format for measurement
4	Purify measure: *internal consistency, EFA (to establish content validity)*	Full administration: *100-200 sample size to establish internal consistency*	Inter-item correlation, EFA *to one sample,* CFA *on the whole original items on another sample (then comparing results if they return the same*	Finalising scale in the main study: *final EFA (consistency of results of step 3 and 4 is important), CFA, internal consistency, and validity*	Scale refinement: *collect data to pre-test, CFA, convergent validity, discriminant validity. Then reliability (Cronbach's alpha)*	Initial item pool revised by experts

Step	Churchill (1979)	Spector (1992)	Hinklin (1997)	Netemeyer et al. (2003)	Mackenzie et al. (2011)	DeVellis (2012)
			number of factors)			
5	Collect data	Validate and Norm: *content, convergent validity, discriminant Validity, criterion-related*,	Internal consistency assessment: *based on CFA*		Validation on new sample: *-scale validity -cross-validate the scale*	Inclusion of validation item (e.g. social desirability items)
6	Assess reliability: *coefficient alpha and split half*	Reliability and norms: *Internal consistency using different samples withfinalised items. Norms by descriptive statistics*	Further validity assessment: *convergent validity, discriminant Validity, criterion-related validity on a new data set*		Develop norms	Administrate items to a development sample (pilot study)
7	Assess validity: *Construct validity, criterion validity, discriminant validity*		Replication on new sample: *CFA, internal consistency reliability and construct validation*			Evaluate the items: *item-scale correlation, item variance, item mean, coefficient alpha*
8	Develop norms: *Average and other statistics Summarizing the distribution of scores*					Conducting factor analysis: *EFA, CFA, validity*

Figure 4.2 Steps in scale development and issues to consider in each step (adapted from Netemeyer et al., 2003)



Step 1: Develop a conceptual definition of the construct

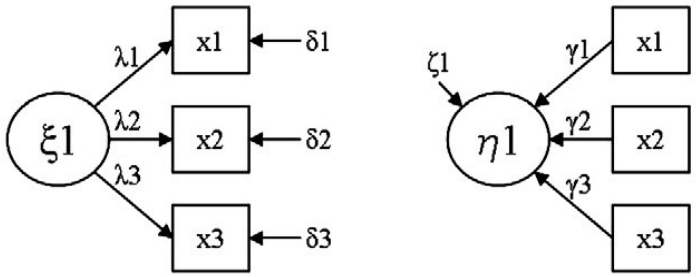
A construct is a conceptual term used to describe a phenomenon of theoretical interest (Cronbach & Meehl, 1955; Edwards & Bagozzi, 2000; Howell, Breivik, Wilcox & West, 2007). According to Nunnally and Bernstein (1994, p.85) 'to the extent that a variable is abstract and latent rather than concrete and observable, it is called a construct'. Due to the abstract nature of the constructs, researchers use multiple measures of constructs (MacKenzie, 2003) to: (a) better capture the full domain of complex constructs (Churchill, 1979), and (b) enhance the reliability of measurement (Nunnally & Bernstein, 1994). Hence, the first step in measuring a construct is to clearly define the conceptual domain of the construct (DeVellis, 2012; MacKenzie, 2003; Nunnally & Bernstein, 1994; Spector, 1992).

A vague definition of a construct only conveys general information about the nature of the variable (Ghiselli, Campbell & Zedeck, 1981) and makes it difficult to avoid using contaminated measures (by including unrelated factors) or deficient measures (by under-representing the conceptual domain). As a result, the probability of deviance between the concept and its measures increases (Adcock, 2001; Goertz, 2006; Podsakoff, MacKenzie & Podsakoff, 2016).

Since, construct definition will be used as a guide for the creation of its items (Hinkin et al., 1997), a clear-cut definition of a construct is essential in order to correctly specify how the construct should relate to its measures (measurement model). Psychometric literature distinguishes between two different types of measurement model, namely reflective and formative (Bollen & Lennox, 1991). Being based on the classical test theory, reflective measurement items are dependent on the value of the latent construct. Therefore, as presented in Figure 4.3(a), the causality flows from the latent construct (ξ_1) to the measurement items (x_i) in the sense that the construct explains the variation in the measures. On the other hand, in the formative model, the latent construct is conceptualised as a summary of its measurement items (Jarvis, MacKenzie & Podsakoff, 2003). As demonstrated in Figure 4.3(b), in this model the causal relationship flows from the formative measurement items (x_i) to the latent construct (η_1) meaning that measures jointly influence the latent construct and the full meaning of the construct is derived from its measures (Bagozzi & Fornell, 1982; MacKenzie, Podsakoff & Jarvis, 2005). The error term in two models

also differs. In reflective measurement model, the error terms (the δs) are random errors (see Figure 4.3(a)). While in formative models (see Figure 4.3(b)), the error term (ζ1) "is a term that includes all other determinants of [η1] that are not included in the [x_s]" (Bollen, 2007, p.220).

Figure 4.3 Measurement model with (a) reflective indicators, (b) formative indicators.



Provided with the above initial information on these fundamentally different measurement models, it is understandable why it becomes more difficult to determine which of these measurement relations is the most appropriate when the definition of a construct is not clear in the first place.

Overall, as MacKenzie (2003, p.323) summarised it, failure on adequate conceptualisation of a construct will result in "a sequence of events that undermines construct validity (primarily due to measuring deficiency/contamination), statistical conclusion validity (due to the biasing effects of measurement model misspecification), and ultimately internal validity (due to a combination of factors)".

Unfortunately, despite the importance of developing precise, clear conceptual definition of a construct, it remains a constant issue for scholars (Gerring, 2011; Goertz, 2006; MacKenzie et al., 2011; Podsakoff et al., 2016) and researchers often use or develop "sloppy, careless, or subjective" definitions (Gerring, 2011, p.415).

A good construct definition requires clear conceptual thinking (MacKenzie, 2003). To present adequate and specific conceptual meaning for the constructs of interest in this study, the researcher has spent a considerable amount of time of the doctoral training on the construct conceptualisation process through conducting an extensive literature review and seeking experts' and practitioners' advice as the study progressed. When conceptualising all the new constructs in this study, the

researcher considered unidimensional (conceptually representing one distinguishable facet of the construct) and of a reflective nature.

It is argued by Borsboom (2005) and Mackenzie et al. (2011, p.302) that "constructs are not inherently formative or reflective in nature, and most can be modelled as having either formative or reflective indicators depending upon the researcher's theoretical expectations about how they should be related based on the conceptual definition of the construct". However, the reflective measurement model has been dominant in social science (Howell et al., 2007) and there are some criticisms of using formative measures, so this research has avoided using them (for a detailed discussion see Cadogan & Lee, 2013; Cadogan, Lee & Chamberlain, 2013; Cadogan & Lee, 2013; Cadogan & Lee, 2013; Cadogan et al., 2013).

Step 2: Generating and Judging Items to Represent the Construct

Generating items: After defining the construct, the next step is to generate a set of items that fully captures the conceptual domain of the construct. These items can be sourced from relevant literature, previous theoretical and empirical research on the focal construct, deduction from the theoretical definition of the construct and suggestions from experts in the field (Churchill, 1979; MacKenzie et al., 2011). As the nature of the correlations among items is not known at this stage of scale development, having as many as (practically) possible items will ensure the scale against poor internal consistency (DeVellis, 2012; Howell et al., 2007). At the same time, to minimise response bias caused by boredom or fatigue, a measure should be kept short (Hinkin et al., 1997). Hence, attempting to measure a construct reflectively, the researcher has to come up with at least three strongly correlated indicators that are unidimensional for the same construct (Howell et al., 2007). Regardless of the number of items, the content of each item must preliminarily strongly reflect the construct of interest (DeVellis, 2012), in other words, items must be redundant.

The researcher has to make sure that each statement is properly worded. Failing to provide rich phrasing for the questions will result in item non-response (due to the respondent not answering the question) and measurement error (due to answering questions incorrectly which does not reflect the true opinion of the respondent). As

emphasised by Churchill (1979) ambiguous, double-barrelled, positively or negatively worded items, and questions which contain an obvious “socially acceptable" response must be avoided (Iacobucci & Churchill, 2009).

When the content of each individual item is determined, the next stage is to design the scale itself. This involves deciding on the exact format of the scale, including a selection of response choices and writing of instructions (Spector, 1992, p.7). There are many different types of measures of which Likert scales are the most commonly used in survey questionnaires. The level of measurement utilised in Likert scales is interval (Cook, 1981; Hinkin et al., 1997).

To choose a particular form of response, first, the nature of responses has to be determined. The most common response natures are agreement, evaluation, and frequency. ‘Agreement’ response choices are those asking for the extent to which the respondents agree or disagree with items. Scale points are symmetrical and bipolar varying from (very much) agree to (very much) disagree, and often including a neutral point in the middle. ‘Evaluate’ response choices ask respondents to rate the subject along a positive (good) to negative (bad) dimension. The respondents will be asked questions regarding how often something happened with ‘frequency’ scales. Although all types of these scales can be used for measuring every construct, some items might work better over others (Spector, 1992).

These response choices then have to be quantified and ordered along a measurement continuum. Some scales are unipolar when the scale value can vary from zero to a high positive value. Bipolar scales, however, are mapped to a scale with a zero value in the middle. These scales, in fact, make a respondent balance two opposite aspects and determine the relative proportion of them.

Depending on what is being measured, the number of response categories may differ. However, the optimum number of response categories should allow respondents to discriminate the categories meaningfully (DeVellis, 2012). In the past, scale design scholars have shown that five- and seven-point scales can generate necessary variance to create adequate internal consistency and reliability estimates (Hinkin et al., 1997; Revilla, Saris & Krosnick, 2013).

As such, this study utilised multi-item, interval-level Likert scales to measure constructs of interest. Since the questionnaire in this study is very long, open-ended questions were kept to a minimum as much as possible and very short answers (a number or one-word answers) were expected.

Judging Measurement Items: After generating the item pool, it has to carefully be reviewed and edited by experts (DeVellis, 2012). The first validity assessment that should be established in the scale development process is content validity. Content validity is the extent to which a specific set of items reflects a content domain (DeVellis, 2012). Nunnally and Bernstein (1994, p.102) emphasised that content validity is to evaluate the "adequacy of sampling the material on which people are tested in terms of a well-formulated plan and procedure of test construction before the actual test is developed". Although different statistical methods have been suggested to help to assess the content validity of newly developed scales, Nunnally and Bernstein (1994) and DeVellis (2012) among others highlighted that content validity is the least empirically valid and depends on the extent to which raters agree on how well test material was sampled. Hence, as Mackenzie et al. (2011, p.304) suggested when assessing content validity, one should answer two related judgmental questions:

(1) Is the individual item representative of an aspect of the content domain of the construct?

(2) Are the items as a set collectively representative of the entire content domain of the construct?

As advised by Anderson and Gebring (1991), to assess content validity of the items in this study, both academic experts (the study supervisor and other academics and colleagues in the conferences and doctoral colloquiums who worked extensively with the construct in the related concepts) and industry experts (export managers of two companies in Nottingham, United Kingdom) as representatives of the main population of interest were selected. The expert panel was provided with a definition of the construct (DeVellis, 2012). As noted by Mackenzie et al. (2011, p.306), "the effectiveness of any content adequacy assessment technique is only as good as the definitions of the construct (and the items) that are developed by the researcher in

the first place". Having items reviewed for their relevance to the domain of interest resulted in implementing a number of adjustments to the scale and editing ambiguous wording so that all the raters agreed that the scales had a high content validity.

It is important to note that content validity is different from face validity; however, they are used interchangeably by scholars when reporting scale development validity assessments. Face validity is the extent to which a measurement tool (subjectively) appears to measure what it is supposed to measure (Bryman, 2016), while content validity is the extent to which items are relevant to the content being measured. Although both are clearly a matter of judgment, face validity can be considered as one aspect of content validity, concerning an inspection of the final product to make sure that nothing went wrong in transforming the plans into the completed instrument. In other words, "face validity concerns judgment about items after an instrument is constructed, and content validity is more properly ensured by the plan of content and item construction before it is constructed" (Nunnally & Bernstein, 1994, p.110).

Face validity of the questionnaire was assessed when the whole questionnaire was reviewed by a panel of internal and external academics and the export managers as representatives of the final sample. The physical characteristics of the questionnaire, length of the questionnaire and the wording were evaluated in the pre-testing process to ensure the face validity of the survey questionnaire.

Step 3: Designing and conducting studies to develop and refine the scale

After initial expert judgment on the questionnaire, the next step is to conduct the pilot study to develop and refine the scale. The procedure, including sample frame selection and conducting the pilot survey is extensively discussed in section 4.5.1. The analytical procedure and techniques for scale development using pilot study are illustrated in section 4.7.

Step 4: Finalising the scale

To finalise the scale and based on the pilot study result, it is necessary to collect another set of data from an appropriate sample and repeat the scale-testing process with the new scales. The consistency of the result in steps 3 and 4 are crucial for

establishing valid and reliable scales (Netemeyer et al., 2003). These analyses should provide the researcher with the confidence that the finalized measures possess reliability and validity and would be suitable for use in future research (Hinkin et al., 1997). The detail of conducting the main survey and related analysis are discussed in sections 4.6 and 4.7 respectively.

To sum up, in this section the whole procedure of scale development is explained briefly. Steps 1 and 2, which reflect defining, creating and judging the scale items, are the main part of designing the questionnaire. The next stage in questionnaire design is a decision on the 'physical characteristics of the questionnaire' as illustrated in Figure 4.1. Step 3 and step 4 are discussed in the following sections of pre-testing (see section 4.5), the main survey (see section 4.6), and analytical techniques for measurement development (see section 4.7), respectively.

4.4.2 Physical characteristics of the questionnaire

Subsequent to a decision on the content and response format of each question, all items were put together to form a questionnaire. The sequence of the questions is highly important. It is advised that the questionnaire starts with broad, simple questions and narrows the scope as it progresses further (Iacobucci & Churchill, 2009). The first couple of questions have to be designed in a way to gain the respondent's attention and stimulate their interest in the topic (Hair, Celsi, Money, Samouel & Page, 2011). Moreover, sensitive and difficult questions (e.g. sensitive financial information) have to be placed towards to the end of the questionnaire. When respondents have become involved in the study, they are less likely to feel threatened by delicate questions and to stop completing a questionnaire (Iacobucci & Churchill, 2009).

The physical appearance of the questionnaire can also influence the respondent's cooperation (Iacobucci & Churchill, 2009). "Appearance factors may project an image of professionalism that could result in greater trust on the part of the recipient" (Childers & Skinner, 1996, p.196). In fact, there is less effort needed when a questionnaire is easy to follow, answer, and pleasant to the eyes (Greer, Chuchinprakarn & Seshadri, 2000). The effectiveness of using colourful design has been investigated by previous researchers. LaGrace and Kuhne (1995) found using

a combination of two colours in a questionnaire could act as visual stimuli and positively affect response rates. Researchers also believed the booklet format would appear more professional, and could make the questionnaire easier for respondents to read and turn pages (Erdogan & Baker, 2002; Sudman & Bradburn, 1982). A personalised front cover, including a photo of the research team, their contact details, the university logo, and a quick reminder of confidentiality can be used to establish trust (Erdogan & Kitchen, 1998).

A proper introduction also plays an important role in the survey questionnaire. In the case of mail surveys, a cover letter introduces the study (Iacobucci & Churchill, 2009). Hence, it has to convince the recipients of questionnaires to participate in the study. There are simple but important factors recommended (e.g. Erdogan & Baker, 2002; Stern et al., 2014) to be considered in designing the cover letter including:

- using colour department-headed cover letters to illustrate the university/department's sponsorship
- providing individually addressed letters with respondents' job titles and full addresses
- writing the researcher's name, position, and signature with a ballpoint pen
- assuring respondents that their responses will be confidential and that all data will be reported in aggregated form

The length of the questionnaire is also important. Where possible, they have to be kept as short as possible, while avoiding appearing to be crowded (Iacobucci & Churchill, 2009). The length of the questionnaire is a trade-off between reliability and response rate (DeVellis, 2012). Although short questionnaires may have a higher response rate than longer ones, they are more prone to suffer from poor reliability if necessary items are not considered in the questionnaire.

All the above points have been considered and applied in designing the questionnaire for the current study. The questionnaire for this study was designed over a year. In addition to conceptual item generation and scale development, particular attention has been paid to the wording of the questions, the sequence of the questions, and also the graphical design of the questionnaire. In this process, constant expert judgment, academics and practitioners, on all aspects of the

questionnaire has been a big help and created over 40 draft versions of the questionnaire.

However, the length of the questionnaire remained long, despite its possible disadvantages as cautioned against in the literature, in order to adequately capture the construct in the conceptual model and demonstrate acceptable reliability. Nevertheless, to overcome the drawbacks, different strategies have been used.

In the pre-testing phase, where a 12-page questionnaire was designed to collect data through mail survey, particular attention was paid to designing the cover letter and pre-notification of the recipients of the study in order to create positive initial impressions. Stressing the importance of the recipients to this study, positioning them as experts and offering them an executive report on the results were considered to be particularly effective in making respondents psychologically committed to cooperate in the study (Erdogan & Baker, 2002; Levine & Gordon, 1958). A copy of the questionnaire is available in Appendix 4.1.

To compensate for the disadvantages of using a 23-page[7] questionnaire for the main survey, the method of survey administration was chosen to be telephone interview. As discussed comprehensively in section 4.3.4, this method is suitable for long and complicated questions and guarantees a high response rate.

4.5 Pre-test

The purpose of pre-testing is to evaluate the accuracy (validity) and consistency (reliability) of the questions, specifically newly developed scales. The value of a pre-test lies in its ability to uncover problems before the questionnaire is used in the actual research project in terms of the wording of the questions, instructions, scaling, and length of the questionnaire (Gershowitz, 1995; Hair et al., 2011; Reynolds & Diamantopoulos, 1998). Pre-testing includes several stages from initial interview and expert judgment on the specific components of the questionnaire to carrying out a preliminary study going through the entire research procedure with a smaller sample than the main study. In addition to the professional and expert judgement on the

[7] Note that both main survey and pre-test questionnaires mentioned in this study contain extra questions for the purpose of future publication beyond the outline of the PhD thesis.

questionnaire as a part of scale development validity (see step 2 of the measure development procedure in section 4.4.1.2), there is a clear message from the methodological literature that each survey should be examined in a similar setting to the actual research project, but on a smaller scale (Brace, 2008; Netemeyer et al., 2003; Reynolds & Diamantopoulos, 1998). This process is referred to as pilot study.

In the current study, initial interviews with practice and academic experts were followed by a pilot study, as a main step in scale development, in order to establish the validity and reliability of the questionnaire.

4.5.1 Pilot study

Questionnaires do not emerge fully-fledged (Oppenheim, 1992). To make sure the survey works as intended, a researcher has to test every aspect of a questionnaire in a preliminary study known as a pilot work. Netemeyer et al. (2003) highlighted four issues to be considered in a pilot study including: (a) sample size, (b) sample composition, (c) initial item reliability estimates, and (d) the number and type of valid scales to include. In the following sections, sample size decision, sample frame selection and survey administration method for the pilot survey are described in detail. Initial related statistical estimates, however, are illustrated in sections 4.7.1 and 4.7.2.

4.5.1.1 Sample frame selection

Given the scope and objective of this research, the target population was defined as export managers or export decision makers of companies within different manufacturing sectors. A sample of UK-based export companies was chosen as a convenient sampling for the pilot study. A list of these companies was extracted from the 'Kompass' database[8], as free access to this database was provided by the Loughborough University Marketing and Retailing Group. The implemented criteria for this sample selection were manufacturers based in the UK with export activity, and with between 20 and 1000 employees. Implementing this filtering, the database

[8]Kompass is a comprehensive B_2B database, with more than 3.5 million international and domestic companies listed.

produced 3560 companies. The database provided the name of the managing director, sales and marketing managers. The number of companies specifying the name of the export manager was rare, due to many companies not having a separate export department and people within marketing or sales department also being decision makers in export and international sales activities. The postal address of the companies was also provided by the database.

4.5.1.2 Conducting the pilot survey

Although some scholars (e.g. DeVellis, 2012) suggest that the sample size for pilot studies should be in the range of 300), others suggest 100 to 200 samples is sufficient (e.g. Netemeyer et al., 2003; Spector, 1992).

To conduct the pilot survey of this study, four different procedures were tried and used to obtain the minimum sample size of 100. These procedures are explained accordingly.

Data collection procedures

Data collection procedure 1: In order to determine the extent to which information provided by the database is reliable and up-to-date, database contact details were used without any initial verification check on the provided information. In addition, the recipients of the questionnaire were not pre-notified by telephone or letter. This method was chosen because it needed minimal time and effort to conduct the survey. To implement the pre-test, a sample of 220 exporters was randomly selected from the initial contact list. The initial mailing package included a copy of the cover letter addressing the managers listed in the database, a copy of the questionnaire and a self-addressed, first-class stamped return envelope (a copy of the cover letter is available in Appendix 4.2 (a)). It took only one day to prepare all the packages and send them out. During the two-week period, following the initial mailing, only four completed questionnaires were returned, so a reminder letter was sent to the non-respondent companies. The second reminder package including a new cover letter, a replacement questionnaire, and a return envelope, four weeks after the initial mailing. In total, eight usable responses were received. A copy of the reminder letter and the second cover letter is available in Appendix 4.2 (b), and 4.2 (c).

Due to the unacceptable response rate, it was necessary to explore key reasons for the large number of non-responses. To investigate the reasons, all 212 [220-8=212] companies were contacted by telephone. As illustrated in Table 4.19, 86 of the cases failed to receive the questionnaire, because either the contact name was wrong, the person no longer worked at the company, or they were not the right contact for the study, so they ignored and discarded the questionnaire. Furthermore, 22 companies mentioned different postal addresses than the one provided from the database. Since the available telephone number for 27 companies was not valid or accurate, (the number was disconnected or it was redirected to an answering machine during several attempts), the reasons behind their non-response could not be asked. Moreover, about 25 per cent of the companies in the sample were not qualified as an exporter for different reasons. They either had stopped their exporting activities, they were not an active exporter meaning the export function was not involved in proactive marketing, export activities were organised by clients, exporting involved the only shipment and not sales or marketing, or the company was the subsidiary of an international corporation and all export marketing decisions were made abroad. Despite implemented criteria of being a manufacturer, when refining the database, some of the companies were export/import agencies and not the manufacturer. As a result, neither were they qualified to participate in the study in the first instance.

Only 25 of the cases confirmed they had received the questionnaire, however, they were not willing to participate in the study, mainly due to time constraints and firm policy not to participate in surveys.

With only 8 completed usable questionnaires from this round of data collection, the effective response rate for this method was 3.6% [8/220=3.6].

Table 4.19 Response pattern of pilot mail survey

Reasons for non-response	Number of Firms	Percentage
Wrong contact name	86	40.6%
Wrong address	22	10.4%
Not valid telephone number	27	12.7%
Non-Exporter	52	24.5%
Eligible, but not interested to participate	25	11.8%
Total	**212**	**100%**

Given the large number of errors and misidentification in the database and a very low response rate, all the firms on the database had to be pre-qualified before the researcher resumed data collection for the pilot test.

Data collection procedure 2: Learning lessons from the first method, companies were contacted by telephone in order: (a) to check if they met the research criteria, and were eligible to participate in the study, (b) to verify the contact details of the most appropriate informants, (c) to ask if they were willing to participate in the survey, and (d) to pre-notify the informants of: the survey aims, who we are, how their participation in this study is vital to success of the study, and how their contribution in this study will be appreciated. Out of 1050 companies contacted, 110 of them were recognised as eligible and willing to participate in the study. Subsequently, the questionnaire package included a copy of the formal cover letter addressing the contact that had already been spoken to over the phone, a copy of the questionnaire and a self-addressed, first-class stamped return envelope was sent out (a copy of the cover letter in procedure 2 can be found in Appendix 4.3 (a)). The first follow-up call to the recipients was made two weeks after the initial mailing in order to find out: (a) if the informants had received the questionnaire, (b) how they found it in terms of the relevance to their area of expertise, and (c) if there was any problem or question with the questionnaire's design and concepts. This follow-up also provided an opportunity to persuade the respondents to complete the questionnaire and return it as soon as possible. Two more reminder calls, at a two-week interval, were made to the non-response cases. Since the emphasis in this method was to speak to the qualified respondents, several phone calls had to be made in most cases to reach them as they were often away from their desk, being on business/holiday trips or simply did not have time to speak.

The entire procedure from the initial contact to receiving questionnaires back took more than five months. As described, it also demanded a high level of administrative work. The hard work paid off with a very high response rate. 46 out of 110 respondents returned completed useable questionnaires, resulting in a 41.8% [46/110= 41.8] response rate for this method of data collection.

This method proves the point emphasised by Dillman (2011) and many another scholars that systematic follow-up procedure, especially telephone calls are effective

in achieving improved response rates. However, considering the time and resource constraints in the PhD study, when the researcher was unable to talk to the would-be respondents on the phone, the mail pre-notification and follow-up were replaced by a telephone call, and resulted in the third method of data collection described below.

Data collection procedure 3: This method was carried out parallel to the previous one. After an initial phone call made to the company to verify eligibility and contact details, in some cases the researcher could not speak to the potential respondents to notify them of the study because they were not available to talk or the company policy was not to provide names and direct contacts to researchers.

Subsequently, a personalised pre-notification letter was mailed to the potential respondents, 3 days before they received the questionnaire, advising them to expect a questionnaire (see Appendix 4.4 (a)). When the contact name was not provided, the respondent's job title or their position in the company, such as "export manager" or "sales manager" rather than their individual name were given in the cover letter.

The questionnaire package was similar to the previous method, however, reminder letters, and follow-ups were in written format (similar to procedure 1), and mailed to the non-response cases with a two-week interval after the initial mailing (a copy of the cover letter can be found in Appendix 4.4 (b)). Subsequently, 350 questionnaires were sent out using this method. After 3 months, 47 completed usable questionnaires were returned. The response rate of 13.4% [47/350=13.4] was acceptable considering significant less time and effort was invested for conducting this method.

Data collection procedure 4: Using the cleaned database encompassing the eligible firms and the right contact person, the only difference in this method was that the potential participants were contacted through their LinkedIn profile. First, the initial contact request was sent to the potential respondents. After receiving the connection acceptance, a 'thank you' email was sent as a message to the LinkedIn inbox of the candidates. This letter was also utilised to introduce the study and invite the recipients to participate in the survey. A copy of the invitation letter can be found in Appendix 4.5 (a). Upon receiving their agreement to participate, the questionnaire package including a cover letter, a copy of the questionnaire, and a stamped-

addressed return envelope was sent to their preferred address. Two weeks after the initial mailing, a reminder message was sent to the LinkedIn inbox of non-responses. At this stage, the candidates determined either that they were still interested to participate in the survey or not.

This method was more efficient as it let the researcher make contact outside office hours (no time constraint), with less cost of communication (e.g. time and postage), there was no gatekeeper barrier, and the questionnaires were only sent to willing eligible respondents.

As expected, this method held a high response rate. Out of 25 questionnaires sent out, 15 completed usable questionnaires were sent back leaving a response rate of 60% [15/25= 60]. The data was collected in a one-month period.

Implementing all four different procedures to collect data, 108 completed questionnaires were used in the pilot test and further statistical analysis (see section 4.7).

4.6 The main survey

After the pilot study, the finalised questionnaire was used for the main survey. As mentioned earlier (see section 4.3.4), the main survey included some additional questions for further research beyond the PhD study. This questionnaire was considerably longer than the pilot survey and consisted of 23 pages. Although the population of interest remains the same for the main survey, sample frame selection and survey administrations are different and accordingly explained in the following section.

4.6.1 Sample selection and survey administration

The data for the main survey was collected through ACMR[9], a market research agency in Beijing, China. The population of interest is export managers or export decision makers in Chinese exporting firms operating within different manufacturing

[9] All China Marketing Research Co. Ltd. (ACMR) is a leading provider of business information and market research, focusing on collecting, studying and analysing data and information on the macro economy, industrial sectors, enterprises and business markets in China.

industries. The sample chosen for the main study consisted of a list of 2000 Chinese exporting firms. This sample was drawn by convenient sampling method. The marketing research agency contacted eligible firms to get agreement to participate in the study. The questionnaire was translated by a professional translation agency into Chinese[10]. The method of survey administration was telephone interview. The number of interviewers for the whole process was reported to be 20. It took the agency three months to collect data for this study. In total, 250 completed questionnaires were produced with no missing data. Each questionnaire only had one respondent. The effective response rate is 100 percent, since the companies that agreed to participate, completed the questionnaire on the phone, and answered all the questions. A copy of the main survey can be found in Appendix 4.6.

The descriptive information and statistics on the respondents and participant firm's characteristics are provided in the next chapter (see chapter 5, section 5.2 and 5.3).

In the following section, analytical techniques for measurement development using both pilot survey and main survey data are explained.

4.7 Analytical techniques for measurement development: dimensionality, validity, and reliability

Measurement properties of a scale including dimensionality, reliability, and validity are interrelated (Netemeyer et al., 2003). For a measure to be considered valid, first, its dimensionality and reliability must be established. However, dimensionality and reliability are a necessary but insufficient condition for establishing construct validity. Given that unidimentionality of a scale itself is a precondition to its reliability and validity, recognising unidimentionality of a construct is a priority in scale development.

Factor analysis is a well-established and popular method for assessing dimensionality of constructs. To establish the measurement properties of the scales in this study, (as illustrated in Figure 4.2, section 4.4.1.2), both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were applied. First, an

[10] Since the questionnaire was developed in English, it was translated into Chinese, and then a back-translation was commissioned from two independent translators to ensure conceptual equivalence.

exploratory factor analysis followed by item analysis and internal consistency (reliability alpha) estimations was applied to the developmental (pilot study) sample. In order to further assess the dimensionality of the scales, a second EFA, and internal consistency examinations were carried out on the main study sample, in search of consistency of results with the pilot study analysis. Finally, measurement dimensionality, validity, and reliability were subject to examination by using CFA on the main study sample.

In the following sections, the specific analytical techniques employed in the assessment of psychometric characteristics of the scales including EFA, item-based analysis, CFA, validity, and reliability examinations are explained, however, the results will be reported in the next section.

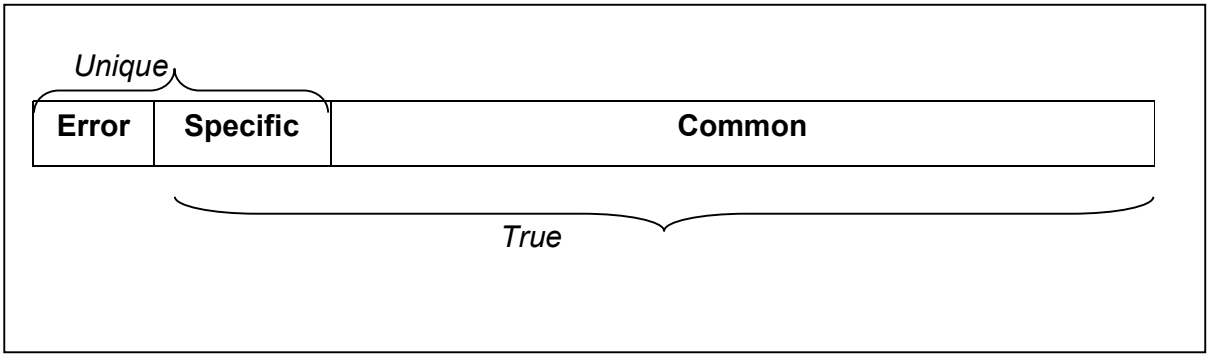
4.7.1 Initial item analyses via Exploratory Factor Analysis

Exploratory factor analysis (EFA) is recognised to be the most appropriate analytical approach for initial item selection. This is a data reduction technique that aims to identify the relationships among items and develop a new set of variables, smaller than the original set (Hair, Black, Babin & Anderson, 2014). In EFA, the relationships between observed and latent variables are not hypothesised a priori and the structure of the data governs the structure of the factor model (DeVellis, 2012; Hair et al., 2014).

As described earlier in section 4.4.1.1, the constructs of interest in this study are considered to be reflective, meaning the variation in a construct causes variation in its items (Bollen, 1989).

As illustrated in Figure 4.4, variance of any item (observed score) can be decomposed into three parts including: (1) variance, which is common with the latent factor and is referred to as common variance or communality, (2) specific variance, which is not explained by common underlying factor and is due to characteristics of individual indicators (items), and (3) error variance, which is a variance in measure that is not explained by true score and could be a result of measurement or data collection error (Hair et al., 2011; Kline, 2013; Nunnally, 1978).

Figure 4.4. Proportion of item variance in factor analysis (adapted fromKlein 2013)



The primary concern in EFA is to explain the proportion of a total item's variance that is shared with other items (common variance) and thus potentially explained by an underlying factor (Kline, 2013). Two major factor analysis methods often utilized are principal component analysis (PCA) and principal axes factoring (PAF) also known as common factor analysis. The only difference between these two methods is based on the item variance assumptions (Kline, 2013). The PCA method does not allow for measurement error or specific variance assuming all item variance source is common (shared) variance (see Figure 4.4). To drive a factor solution, PCA considers all the variance in the items regardless of whether it is common to a factor (component) or unique to an item, thus, its primary goal is data reduction (Netemeyer et al., 2003). In contrast, PAF method appreciates all different sources of variations in an item and only analyses common variance. Therefore, PAF calculates a unique communality estimate for each item that can be used to identify potential underlying dimensions in a scale. Although solutions derived from both methods are reported to be quite similar in most cases (Hair et al., 2011), the small number of items and low communalities could cause divergent results (Netemeyer et al., 2003). Accordingly, as recommended by Netemeyer et al. (2003), for the purpose of scale development and establishing dimensionality of the constructs in this study PAF is selected over PCA. In addition, PAF-based EFA is suggested to generalise better to CFA (Floyd, Widaman & Butcher, 1995). Given that confirmatory factor analysis is going to be used to finalise the scale, PAF seems to be the appropriate factor driving solution for this research.

Subsequent to factor extraction, scale developers often rotate the factors. Rotation makes each item load highly on as few factors as possible, which leaves the researcher with more interpretable factors and provides a simpler overview of the

factor structure (Hair et al., 2011; Kline, 2013; Netemeyer et al., 2003; Nunnally & Bernstein, 1994; Nunnally, 1978). Two main methods of orthogonal and oblique rotations are specified in the EFA. Where orthogonal rotation keeps factors uncorrelated and independent, the oblique method allows the derived factors to correlate with one another. Oblique rotation method is advised for scale development purposes, when the intention of EFA is to determine the degree to which multiple scales/dimensions correlate (Netemeyer et al., 2003).

When it comes to a decision on the factors to be extracted, different rules of thumb and psychometric criteria have to be considered. To interpret the factor matrix, factor loading has to be examined. The minimum critical value for an acceptable factor loading is 0.4 (Hair et al., 2011).

The amount of variance being explained by an extracted factor in relation to the total variance explained by the entire factor solution must be at least 5% to be meaningful (Netemeyer et al., 2003). Moreover, the total extracted factors should account for at least 60% of the variance in the items (Hair et al., 2011).

When running the EFA, it is also essential to test for sampling adequacy. The SPSS 23.0 software package used in this research includes both Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. For this purpose, KMO must be more than 0.5 and Bartlett's test of sphericity must be significant to reflect the adequacy of correlation matrices for factor analysis (Field, 2009).

Moreover, to establish a minimum sample size, the recommended ratio of 5 observations per item has to be considered (Floyd et al., 1995; Hair et al., 2011). This prerequisite places a restriction on the number of scale items that could be entered into a single EFA and the researcher may need to analyse the scales using smaller subsets to meet the criteria.

4.7.2 Further item analysis

To further establish unidimensionality and before assessing internal consistency of the scales, a set of item analyses must be carried out (Clark & Watson, 1995; Netemeyer et al., 2003). As highlighted by scale development scholars (e.g. Clark &

Watson, 1995; DeVellis, 2012; Netemeyer et al., 2003; Spector, 1992), when conducting an initial study for scale development, the decision on deletion or retention of items should simultaneously consider item-based statistics, and internal consistency estimates in conjunction with EFA results.

The purpose of item analysis is to find out how well each individual item relates to the other items in the analysis. This property is reflected by inter-item correlations, item-total correlation and the reliability coefficient for each item and scale.

In this study, internal consistency (coefficient alpha), inter-item correlation (correlation of each item with every other item) and item-total correlation (correlation of each item with the sum of all remaining items) were evaluated together using SPSS 23.0 software as a part of item analysis.

Considering the results of item analysis at this stage together with EFA results, a scale developer can select items to include in scales being developed.

- ***Item-total correlation.*** It is argued that item-total correlation can be used to establish unidimensionality of scales. These correlations explain the extent to which each item is correlated with the remaining items considered to be in the scale. As mentioned earlier, corrected item-total correlations are provided as a part of scale reliability procedures. The threshold for item deletion in most studies is in a range of 0.35 to 0.5, and items with an item-total correlation less than critical value are subject to removal (Netemeyer et al., 2003). Accordingly, following Bearden et al., (2001) items with item-total correlations of less than 0.35 become candidates for deletion in this study.
- ***Inter-item correlation****.* Scholars have argued that a strong inter-item correlation could suggest that items in question share a common cause, which means that the items are measuring the same thing (Clark & Watson, 1995). Depending on the extent to which the construct focus is broad or narrow, a range of inter-item correlation from 0.15 to 0.5 has been reported to account for a valid construct. In their scale development study, Bearden et al. (2001) retained items with inter-item correlation statistics above 0.2. However, as suggested by Robinson et al. (1991), inter-item

correlations exceeding 0.3 represented a valid measure of a construct in this study.

- ***Internal consistency reliability.*** Scholars have often used the internal consistency concept to establish scale reliability (Netemeyer et al., 2003). While unidimensionality indicates "whether the scale items assess a single underlying factor or construct", internal consistency refers to "the overall degree to which the items that make up a scale are inter-correlated" (Clark & Watson, 1995, p.315). The most widely used measure of internal consistency is coefficient alpha (Cronbach's alpha). This coefficient is concerned with the common variance of the items (i.e. variance of true score) and represents the proportion of a scale total variance that is attributed to a common source (Netemeyer et al., 2003) (See Figure 4.4, section 4.7.1). For a scale to be reliable, it is expected that the coefficient alpha exceeds the recommended 0.70 threshold. Further reliability and validity assessment (using construct reliability) is undertaken in CFA.

4.8.3 Dimensionality assessment using CFA

The purpose of using confirmatory factor analysis (CFA) in this study is limited to its application as a scale development tool. Despite EFA, the measurement model in CFA method is hypothesised a priori and the main aim is to test how well the proposed model (number of latent variables and their item-specification) 'fits' the actual data. As such, the dimensionality of the construct will be assessed (Hair et al., 2014).

Besides, although extensive EFA and item analysis have been used prior to CFA for trimming items and establishing measurement properties, CFA is also useful in detecting individual items that are a potential threat to the dimensionality of the scale, namely items with correlated measurement errors (Brown, 2015; Netemeyer et al., 2003). As Gerbing and Anderson (1988) have maintained, to adequately establish unidimensionality of the scales, one has to assess all items not only by their relations to other items within the same scale (internal consistency) but also their relation to all other items in the measurement model (external consistency). A number of CFA diagnostic tests including fit indices, standardised residual and modification indices, can reveal any potential threat to the measurement model

properties. Hence, CFA can first be used as a means of further item trimming to modify and finalise a scale and then to confirm the final structure (Floyd et al., 1995).

Similar to EFA, there is a rule of thumb for an adequate sample size to conduct CFA. The ratio of 5 to 10 observations per parameter estimated seems to be commonly accepted (Floyd et al., 1995). In this study, following the recommendation of Hair et al. (2014), the minimum required sample size parameter ratio of 5:1 has been satisfied.

4.7.3 Evaluating CFA model

Different methods of CFA and parameter estimation have been developed and used by different disciplines of which Maximum Likelihood (ML) being the most commonly used method in marketing research followed by Unweighted Least Square (ULS) and Generalized Least Square (GLS) (Andreassen, Lorentzen & Olsson, 2006). ML requires observed variables to be continuous and normally distributed, however, this technique has been shown to be robust to departures from normality and even with small sample size (Bagozzi & Yi, 2012; Kline, 2015). ML is the default estimation method in the LISREL 8.71 package (Jöreskog & Sörbom, 2004) and has been considered for conducting CFA in this study.

Technically, the ML procedure is to iteratively compare the observed covariance matrix among the items with an implied matrix until the differences (residuals) between observed and implied matrices are minimised and solution converged (Netemeyer et al., 2003). In the case of non-convergence and out-of-range estimates, some model re-specification is necessary (c.f. Hair et al., 2014)

4.7.3.1 Assessing the fit

ML estimation is supplemented with a range of fit indices that can be used to assess the model fit. The model is deemed to be acceptable if the goodness-of-fit is adequate (Byrne, 2013). There is a wide range of goodness-of-fit indices developed to diagnose the adequacy of the fitted model namely categorised as absolute and incremental (comparative) fit indices.

Absolute fit indices

Absolute fit indices directly assess "how well the covariance predicted from the parameter estimates reproduce the sample covariance" (Gerbing & Anderson, 1993, p.43). They are simply derived from the fit of the obtained and implied covariance matrices and the ML minimisation function.

The first and most referred to fit measure is chi-square test statistics (χ^2). It is the original fit index as it is derived directly from the fitting function F_{min} and it is computed as follows where N is the sample size:

$$\chi^2 = f_{min}(N-1)$$

In fact, χ^2 delivers a test of a perfect fit and the null hypothesis is that the model fits the population data 'perfectly' (Jaccard & Wan, 1996). Therefore, in contrast to the conventional hypothesis testing, non-significant test statistics are desired in order to accept the null hypothesis, conveying model fits the population data perfectly.

However, there is some impediment with chi-square statistic which has discussed by scholars (e.g. Diamantopoulos, Siguaw & Siguaw, 2000; Hair et al., 2014; Marsh & Hocevar, 1985). First, χ^2 is highly sensitive to sample size. χ^2 tends to inflate as the sample size gets larger and larger chi-squares are more likely to be significant. So there is a probability of rejecting a correct model (i.e. type I error). On the other hand, as small sample size tends to have smaller χ^2 and therefore to be non-significant, there is a probability of making type II error (i.e. not rejecting an incorrect model). Thus, in evaluating the model fit by chi-square test, the possibility of making these errors is emphasized (Hair et al., 2014).

Second, there is the assumption of a perfect fit in the null hypothesis. The fact is that models by definition are simplifications of reality (MacCallum, 2003) and it is almost implausible to have a perfect model that reproduces the population data with minimum to zero error, so the assumption of the perfect fit is highly restrictive and it is a priori to be false.

Moreover, χ^2 is sensitive to departure from multivariate normality, and model size. A complex model with a large number of variables (parameters) increases the probability of higher and significant chi-square values (Hair et al., 2014; Marsh, Balla

& McDonald, 1988). Furthermore, the absolute value of χ^2 is not interpretable and it always has to be reported with respect to its degree of freedom (*df*) and sample size (N).

However, as both χ^2 and *df* are functions of a number of variables (parameters), a normed chi-square value χ^2/df, with a threshold of 3, or even 2 in more restricted models, suggests being interpreted as a well-fitted model (Bollen, 1989). Although this ratio does not completely correct the sample size influence (since only df is independent of sample size), some believe that it can adjust or account for parameter size (Diamantopoulos et al., 2000).

There are several other indices that fall into the category of absolute indices, including the Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI) created by Jöreskog and Sörbom (1993) as alternatives to the chi-square test. GFI is an indicator of how closely the model comes to perfectly reproduce the observed covariance matrix (Diamantopoulos et al., 2000). In fact, it indicates the proportion of variance and covariance accounted for by the model (Byrne, 2013). AGFI is simply the GFI that adjusted for the degrees of freedom in the model. Both indices range from 0 to 1, with 1 being the perfect fit and values above 0.9 indicate an acceptable fit. Although calculation of both indices is not affected by sample size N, unlike χ^2, some studies (e.g. Anderson & Gerbing, 1984; Marsh et al., 1988) suggest that the mean of the sampling distribution of GFI and AGFI tends to increase as sample size increases. However, GFI and AGFI are still often among the most reported fit indices.

$$GFI = 1 - \frac{\text{V residual}}{\text{V total}}$$

$V_{residual}$ = residual variance in covariance matrix (variance that cannot be explained by the model),V_{total} = total variance in the covariance matrix

Comparative (Incremental) fit indices

Comparative fit indices in contrast to absolute fit indices measure the relative improvement in fit by comparing the hypothesised model with the worst possible model. The latter, called a null or independence model, is the model of complete independence where the correlation between the observed variables is considered

as zero and so that a priori provides a poor fit to the data (because of very large Chi-square) (Bagozzi & Baumgartner, 1994). The chi-square value for this model is called chi-square for independence model and is used in the computation of comparative fit indices such as NFI and NNFI. Normed Fit Index (NFI)[11], proposed by Bentler and Bonett (1980), is one of the first fit measures and it is calculated as:

$$NFI = 1 - \frac{\chi 2(\text{hypothesised model})}{\chi 2\ (\text{null model})}$$

The major disadvantage of this index is that the more parameters that are added to the model, the larger the NFI. To take into account model complexity and number of parameters, Non-Normed Fit Index (NNFI)[12], proposed by Bentler and Bonett (1980), which is similar to NFI but adjusted to degrees of freedom and calculated as follows:

$$NNFI - \frac{\frac{\chi 2}{\text{df}}(\text{null model}) - \frac{\chi 2}{\text{df}}(\text{hypothesised model})}{\frac{\chi 2}{\text{df}}(\text{null model}) - 1}$$

Another fit index to be included in this category is Bollen's (1989) Incremental Fit Index (IFI)[13], which can be interpreted as the NNFI, only that IFI is not affected by small size (Bentler, 1992).

$$IFI = \frac{\chi 2\ (\text{null model}) - \chi 2(\text{hypothesised model})}{\chi 2\ (\text{null model}) - \text{df}(\text{hypothesised model})}$$

These comparative fit indices values range from 0 to 1 with values exceeding 0.9 considered as an acceptable fit. In other words, values more than 0.9 indicate that the overall fit of the hypothesised (tested) model is 90% better than the null model (Mulaik et al., 1989).

Non-centrality fit indices

Non-centrality indices seek to assess the degree to which a model lacks fit rather than trying to examine whether the model is correct and fits the population covariance matrix exactly (Brown & Cudeck, 1993; Diamantopoulos et al., 2000; Brown & Cudeck, 1993). The rationale is to use the chi-square that is equal to the

[11] Also known as Δ_1
[12] Also known ρ_2 or TLI (Tucker-Lewis index, 1973)
[13] Also known as Δ_2

degrees of freedom for the perfect fitted model as opposed to the chi-square that is equal to zero. The fitted model will follow a non-centrality χ^2 distribution with non-centrality parameter that is calculated by subtracting *df* of the model from the chi-square: $d=\chi^2$-*df*.

Noncentrality-based indices include the Root Mean Square Error of Approximation (RMSEA) and Bentler's Comparative Fit Index (CFI).

RMSEA, which that is the absolute measure of fit, is based on the non-centrality parameter and in relation to model complexity (*df*), so it penalizes free parameters. This fit index is considered as one of the most formative fit indices, devised by Steiger (1990), and is calculated as follows:

$$\mathrm{RMSEA} = \frac{\sqrt{\mathrm{X2} - \mathrm{df}}}{\sqrt{[\mathrm{df}(\mathrm{N}-1)]}}$$

By adjusting to the sample size, it also rewards a large sample size. MacCallum, Browne and Sugawara (1996) have regarded 0.01, 0.05, and 0.08 as indicating excellent, good, and mediocre fit, respectively. Hu and Bentler (1995) suggested 0.06 as a cut-off value for a good fit.

CFI, on the other hand, is an incremental measure of fit based on the non-centrality parameter that is calculated as follows:

$$\mathrm{CFI} = 1 - \frac{\mathrm{d(hypothesised\ model)}}{\mathrm{d(null\ model)}}$$

If CFI value is greater than one, it is set at one and if less than zero, it is set to zero. The value for this fit index is interpreted as the previous incremental indexes, with values greater than 0.9 regarded as a good fit.

To regulate whether the model fit is an adequate description of data, different indices might be more relevant than others given the sample size, estimation procedure, model complexity and violation of underlying assumptions of multivariate normality (Byrne, 2013).

4.7.3.2 Model specification and re-specification

Searching for the model specification is an iterative process of identification and correcting specification errors by omission or inclusion of parameters given the set of variables in the model in a search of a parsimonious, meaningful model (Diamantopoulos et al., 2000; MacCallum, 1986). The original specification of a measurement model in LISREL, in fact, is reflected in the pattern of its fixed and free parameters in different parameter matrices. Thus, changing the model specification is possible through either reducing (increasing) constraints by freeing measurement parameters previously fixed to zero or cancellation of an equality constraint (fixing parameters to zero or setting equality constraints). Two parameter matrices regarded for measurement model re-specification and modification are LX (Lambda-X) and TD (Theta-Delta).

To change the pattern of LX is to change the loadings from fix to free or set the free one to zero (removing the path). Examination of these parameters reveals adequate items with both significant and high-value loadings (at least 0.5, but ideally 0.7) otherwise, they are subject to being fixed to zero (Brown, 2015).

To change the pattern of TD, on the other hand, is to allow or constrain the correlation among measurement errors. The better the data fit the measurement theory, the smaller are the standardised residuals. If the standardised residuals are relatively large, it indicates a high degree of error and appoints the item for the potential removal of the scale (Bentler, 2007).

Since there are many choices in modifying a model and each of them has very different implications for the model fit, the most justifiable ones should be prioritised. The LISREL output discussed above and some strong theoretical background would help in more efficient modification procedure (Diamantopoulos et al., 2000).

4.7.3.3 Further assessment of reliability (internal consistency)

As mentioned earlier, reliability is the consistency of measurement and reflects the extent to which an indicator is free of random error (Bollen, 1989; Carmines & Zeller, 1979). To establish scale reliability, as introduced in section 4.7.2, Cronbach's (1951) alpha coefficient is the most popular coefficient to be referred to. However, this coefficient has been criticised by many scholars, including Cronbach (Cronbach

& Shavelson, 2004) himself, as it tends to be viewed as a lower bound on true reliability by assuming unidimensionality, and uncorrelated residuals (Bendermacher, 2010; Peterson & Kim, 2013).

Two popular alternative and complementary reliability diagnostic tests are those based on the CFA results referred to as Composite Reliability (CR) and Average Variance Extracted (AVE).

Composite Reliability (CR)

In contrast with coefficient alpha, where construct loadings are a constraint to be equal, in composite reliability loadings are allowed to vary and, as a result, they reflect a better estimate of true reliability (Peterson & Kim, 2013). Using the information on the indicator loadings (λ) and error variance (θ) provided by LISREL output, the composite reliability (ρ_c) is computed as follows (Diamantopoulos et al., 2000):

$$\rho c = \frac{(\Sigma \lambda)2}{(\Sigma \lambda)2 \; + \; \Sigma(\theta)}$$

In order to establish an adequate composite reliability for all the scales, ρ_c should be 0.7 or above (Hair et al., 2014). Adequate CR for all scales can also demonstrate convergent validity (Fornell & Larcker, 1981).

Average Variance Extracted (AVE)

In addition to CR, AVE is another internal consistency diagnostic. It “assesses the amount of variance captured by a set of items in a scale relative to measurement error” (Netemeyer et al., 2003, p.153). The AVE of a construct’s measure can be calculated as the average of squared loading (where λ is the standardised factor loading, and n is the number of items for each construct):

$$\mathrm{AVE} = \frac{(\Sigma \lambda 2)}{n}$$

Values near 0.5 (>0.45) threshold are commonly acceptable for newly developed scales (Fornell & Larcker, 1981; Netemeyer et al., 2003). As advocated by Fornell and Larcker (1981, p.47), the AVE is “sensitive to a lack of convergent validity and can [also] be used to assess discriminant validity”.

4.7.3.4 Further assessment of validity

In addition to initial validity check (face validity and content validity) carried out in the pre-test (see section 4.4.1.2 and section 4.5), more extensive forms of validity, including convergent validity, discriminant validity and nomological validity, are necessary to establish a valid scale (DeVellis, 2012; Netemeyer et al., 2003; Spector, 1992).

Discriminant and convergent validity are usually examined together (Spector, 1992). While convergent validity means that different measures of the same construct will relate strongly to one another (highly correlated), possessing discriminant validity reflects that measures of different constructs do not correlate too highly with one another (Churchill & Iacobucci, 2005; Spector, 1992).

As discussed in the previous section (see section 4.7.3.3), convergent validity can be established given adequate AVE and CR for each construct (Hair et al., 2014). Subsequently, discriminant and nomological validity processes are explained.

Discriminant validity

"Discriminant validity is the extent to which the measure is indeed novel and not simply the reflection of some other variable" (Churchill, 1979, p.70). Based on an extensive literature review, Voorhees et al. (2016) compared different methods of assessing discriminant validity in the field of marketing. They concluded that using AVE-based assessment performs much better than other approaches in detecting violations. They suggest to the reviewers to set AVE-based method as the standard for discriminant validity testing in marketing (for a comprehensive discussion on different methods see Voorhees et al. (2016)).

The common practice for assessing discriminant validity using AVE is to calculate and compare the AVEs for any two constructs with square correlations between them (Hair et al., 2014). To indicate discriminant validity, the AVE estimates for any two factors should be higher than the squared correlation between them (Fornell & Larcker, 1981).

Nomological validity

Nomological validity is the extent to which the measurement instrument correlates in theoretically predictable ways with measures of different but related constructs (Nunnally, 1978). As such, nomological validity is demonstrated if relationships among constructs in the conceptual framework are as expected (Hair et al., 2014). To confirm the nomological validity in this study, following the common practice in the literature, correlation analysis is applied for all the constructs in the conceptual framework presented in chapter three.

4.7.3.5 Assessing CMV using the CFA output

As discussed in section 4.2.1, in addition to some ex ante questionnaire design considerations to address the possible CMV issues, post ante analysis could ascertain that CMV did not pose a threat to the study results. As such, following Podsakoff et al. (2003), CMV threat was examined through Harman's one-factor test. The rationale for this test is that if CMV represents a serious problem to the analysis, a single latent factor would account for all observed variance (Podsakoff & Organ, 1986). Accordingly, the obtained fit for the multi-factor measurement model is compared with a constrained single-factor model. CMV bias becomes a serious problem to the data if the unconstrained model does not significantly fit the data better than the constrained one-factor model. Using the results of the CFA analysis for the measurement model and Harman's one-factor model, the CMV bias was examined (results are reported in chapter 5, section 5.4.6).

4.8 Chapter Summary

This chapter mainly covers the issues and challenges a researcher has to consider from designing the research to conducting the study. Using cross-sectional design and interview-based method of survey administration were justified for the current study. Conducting mail survey for the pilot study was considered due to time and budget constraints. A considerable part of the chapter was allocated to the questionnaire design, and particular attention was paid to the scale development procedure. The necessity of pretesting the questionnaire before conducting the main study in order to establish a valid and reliable study was emphasised. Analytical

techniques and procedures required for measurement development in both pre-testing and main survey phases of the study were discussed in detail. The results of scale development analysis will be discussed in the next chapter.

Chapter 5: Descriptive Analysis and Scale Development Results

5.1 Introduction

This chapter outlines the initial stage of the data analysis. First, using descriptive statistics, the sample characteristics of the study including both participant firms' profiles and respondents' profiles were analysed. Subsequently, the results of developing and purifying of all items and scales discussed in chapter four and used in this study were presented. Providing valid and reliable scales, the presence of potential CMV bias was examined. This chapter concludes with the descriptive analysis of the final constructs to be used in the model testing.

5.2 Participant firms' profile

This section provides information on the Chinese export firms which participated in our main survey study. Given that these firms operate in different industries with different sizes, this descriptive analysis was essential before getting into testing the measurement model and hypothesies in order to get a preliminary impression from the data. In addition to the company profile, the characteristics of the key informant who provided data for this study will be analysed.

5.2.1 Firm size

Following the previous literature in international business, firm size in this study has been measured using two different variables: the number of full-time employees (Gatignon & Anderson, 1988) and total annual revenue or sales turnover (Cooper & Kleinschmidt, 1985). To assess the relationship between these two variables, a Pearson correlation coefficient was computed. There was a strong positive correlation between the two variables ($r=0.728$, $n=250$, $P\leq0.01$).

The total number of full-time employees within the sample ranges from 5 to 4000, with the average number of a firm's employees being 158, with 50 percent of the firms having less than 80 employees. As reflected in the cumulative percentiles (see Table 1.5), 25 percent of the firms employed less than 44 employees. It is evident that the majority of the participant firms in this study are small or medium-size firms with 75 percent having less than 150 employees.

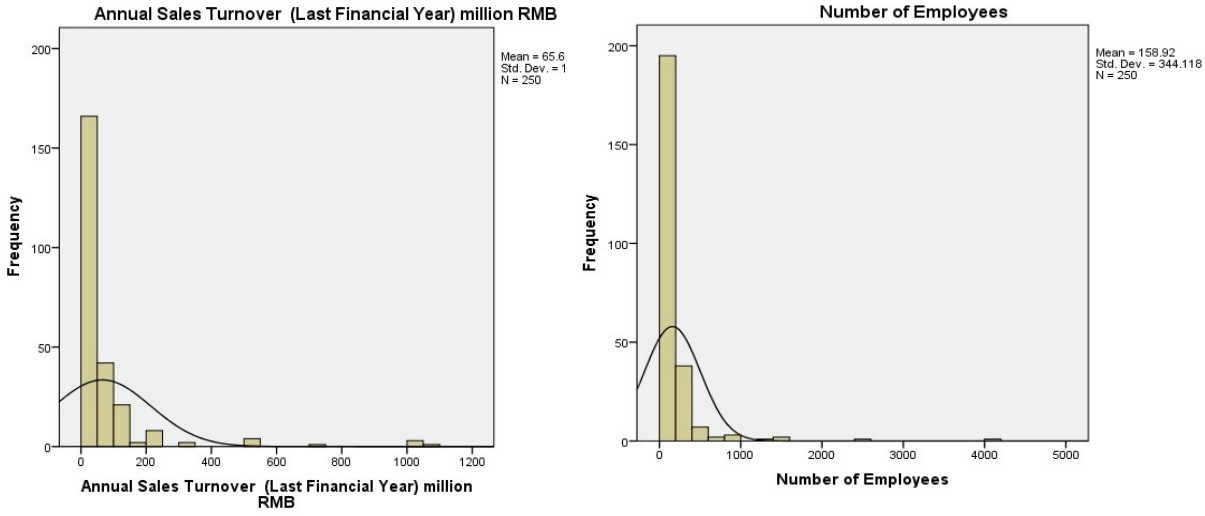
The firm size distribution in terms of total annual revenue has been reported in the unit million RMB and ranges from 1 to 1052 million RMB. However, the average sales turnover for this sample is 65.65 million RMB with 75 percent of the firms reporting less than 50 million RMB as their total annual revenue.

Table 5.1 (a) Number of full-time employees, (b) Total annual revenue (Million RMB).

Descriptive statistics	(a)	(b)
Mean	158.92	65.65
Std. Deviation	344.118	148.864
Minimum	5	1
Maximum	4000	1052
Median	80	20.50
Percentiles 25	44.50	9
Percentiles 75	150	50

The analysis of normal distribution also reflects these results with data being positively skewed for both variables (see Figure 5.1 (a) and (b)).

Figure 5.1 Normal distribution (a) Number of full-time employees, (b) Total annual revenue (sales turnover) million RMB.



5.2.2 Scale of international operation

Three aspects of the internationalisation process – including experience, speed, and scope of the surveyed firms – have been discussed in this section. Detailed descriptive statistics of these variables are provided in Table 5.2.

5.2.2.1 Experience

This sample covers a range of firms, from quite newly established ones with 1 year of business experience to the most experienced firm with 57 years of business activities. On average, firms have about 11 years of overall business experience with 75 percent having been operating for less than 13 years. When it comes to the export experience of the firms[14], however, the maximum number of years of export activity among firms in our sample is 20 years, with 50 percent having less than 7 years of exporting experience and 75 percent having less than 9 years experience.

5.2.2.2 Speed

To investigate the speed of the firm internationalization process, following Acedo and Jones (2007) and Navarro-García (2016), the number of years the firm took to set up its exporting activities since its foundation has been calculated. While 50 percent of the sampled firms started their export activities within one year, 25 percent operated as exporting firms from the start of their business. On average, it has taken less than 4 years for firms to set up their export operations, with only 25 percent delaying set up from 5 to 39 years. The mode value of zero reflects that most firms (103 firms equal to 41.2 percent of the surveyed sample) started their business as exporters.

Table 5.2 (a) Business Experience (Years), (b) Export Experience (Years) (c) Speed (Years)

Descriptive statistics	(a)	(b)	(c)
Mean	10.94	7.17	3.77
Mode	8	5	0
Std. Deviation	6.92	3.58	5.80
Minimum	1	1	0
Maximum	57	20	39
Median	9	7	1
Percentiles 25	7	5	0
Percentiles 75	13	9	5

[14] Overall export experience, measured as the number of years in exporting, is a measure often employed in the literature (Brouthers & Hennart, 2007; Wu, Sinkovics, Cavusgil, & Roath, 2007; Zhao, Luo, & Suh, 2004).

5.2.2.3 Scope

In addition to speed of internationalization and export market entry timing, the scope of the export operation is a factor to be taken into account. To explore the scope of the export activities of the firms, first, the number of countries in which the export firm generates export sales is evaluated (Beleska-Spasova, Glaister, & Stride, 2012). The results show that, on average, participant firms export to more than 17 countries. While the export destination countries served by the firms range from only one country to 126 countries, the majority of the firms (75%) exported to less than 20 countries. This is when 50 percent of the firms tended to develop their market diversification strategies by being present in more than 12 countries. Only 25 percent of the firms have concentrated their export sales in 8 or fewer countries.

To further analyse the scope of international activities of the firm, firms' relative export share in different regions worldwide has been examined. This region-specific presence reflects the markets in which the firms are most active. As shown in Table 5.4, Chinese export firms in our sample targeted entire regions worldwide, with the most attractive export destination being other Asian countries to which 90 percent of the firms (equal to 225 firms) exported their products and services. It is evident that these Chinese firms are more attracted to this culturally closed region. However, this figure is quite close to the EU market share (88 percent) for these firms. Based on the information provided, the number of firms attracted to the North American and Middle Eastern market is equal. In addition, South and Central America, Eastern Europe, Australia/New Zealand, and Africa were served by 81.6 percent, 81.20 percent, 77.20 percent and 72.40 percent of the firms respectively. Of respondent firms, 49.2 percent indicated that they served a worldwide market.

In addition to comparing firms concerning their presence in different regions, it is worth further investigating the density of exports in those destinations. As illustrated in Table 5.4, the most attractive market for these Chinese firms is EU. On average, the European export market share for the firms in our study is 16.14 percent, which is followed closely by North American and other Asian countries' market share of 13.77 and 12.6 percent, respectively. This finding reveals that although 90 percent of the firms in this sample served other Asian countries (see Table 5.3), the intensity of exporting to this countries (12.6 percent) falls behind Europe and North America.

This implies that there might be a strong motivation to export to other Asian countries as mentioned by other scholars as a culturally close destination for Chinese firms. Nevertheless, the intensity of export might not be the highest compared to some other regions. The lowest export market destinations served by the firms are Australia and New Zealand with only 5.87 percent average export proportion.

Table 5.3 Main export destinations' distribution

Regions	EU	Eastern Europe	North America	Mainland China	Other Asian Countries	South & Central America	Middle East	ANZ†	Africa	World-wide
Frequency	220	203	214	195	225	204	214	193	181	123
Percentage	88	81.2	85.6	78	90	81.6	85.6	77.2	72.4	49.2

† = Australia/New Zealand

Table 5.4 Firm's relative export intensity

Regions	EU	Eastern Europe	North America	Mainland China	Other Asia Countries	South & Central America	Middle East	ANZ†	Africa
Mean	16.14	8.59	13.77	18.21	12.60	8.68	8.84	5.87	7.27
Std. Deviation	15.16	9.53	14.74	21.78	13.33	10.08	10.08	7.80	12.03
Minimum	.00	.00	.00	.00	.00	.00	.00	.00	.00
Maximum	80	70	80	90	80	60	80	65	92
Median	10	5	10	10	10	5	5	5	5
Percentiles 25	5	2	5	1	5	1.7	2	1	0
Percentiles 75	20	10	20	30	18	10	10	10	10

† = Australia/New Zealand

5.2.2.4 Degree

Degree of export involvement is the extent to which a firm is dependent on export activities and is measured as the relative percentage of the firm export sales to the total sales. This variable, which is considered as another factor reflecting scale of international operation of the firm, has been interchangeably referred to as export dependency (Katsikeas, 1994), degree of involvement in exporting (Navarro-García, 2016), and export intensity (Kuivalainen, Sundqvist, & Servais, 2007). The information collected on the proportional export sales volume indicates that firms in this study are dependent on the export sale as little as 1 percent to 100 percent. The average degree of export involvement for these firms was 58 percent.

Following Diamantopoulos and Inglis (1988), a 50 percent cut-off point is utilized to distinguish between firms with high degree of export involvement (n=119, 47.6 percent of the firms), and low degree of export involvement (n=131, 52.4 percent of firms). However, 25 percent of the firms indicated that their export sales contribution to total sale turnover was up to 30 percent, and 50 percent reported their export turnover represented 60 percent of total annual turnover. See Table 5.5 for more information.

Table 5.5 Degree of export involvement

Descriptive statistics	
Mean	57.97
Std. Deviation	30.15
Minimum	1
Maximum	100
Median	60
Percentiles 25	30
Percentiles 75	90

5.2.2.5 Export Born Global

Export firms that began to export in their first year are early exporters (Gallego & Casillas, 2014). These firms can be categorised as International New Ventures (INVs) if they are also present in multiple countries simultaneously. These INVs (early exporters with a presence in at least 10 countries simultaneously) can be

categorised as Born Global (BG) firms if they achieve at least 25 percent[15] of their sales in international markets (Jones, Coviello, & Tang, 2011; Knight & Cavusgil, 2004). BG firms are considered to have the highest level of entrepreneurial characteristics (Navarro-García, 2016).

Taking into account all these criteria, 54 firms out of 250 participant firms (21.6 percent) are identified to be categorized as BG firms.

5.2.3 Export specificity

Export specificity, in terms of existence of an export department in a firm and number of staff involved in export activities of the firm, has been examined for the surveyed firms. In response to the question of whether their company has a separate formal export department, the majority of the firms (76.8 percent) replied "yes". Moreover, on average the number of staff directly involved in the company's export activities was 42. When most firms operate their export activities with 3 staff (mode value), 75 percent of firms reported 20 staff or less being directly involved in their export operations. While the range of export staff varies widely from 1 to 1800, only 4 companies operated with more than 360 export-specific employees.

Table 5.6 Number of export staff

Descriptive statistics	
Mean	42.26
mode	3
Std. Deviation	162.96
Minimum	1
Maximum	1800
Median	3
Percentiles 25	8
Percentiles 75	20

5.2.4 Market offerings

The targeted firms for this study are manufacturers with export activity. However, in addition to physical goods, exporting activity of these companies could include

[15] Although this cut-off point and definition of born global firms have been accepted widely in the field; some emerging research suggests different criteria depending on the nature of the firm's activities and size (see Kuivalainen et. al 2007 for more discussion). However, as it is not the main focus of this study, we just rely on the study of Navarro_Gracia 2016, as it's worth mentioning this aspect of international activities of the firms in the study.

service as well. As illustrated in Table 5.7, on average, 83.98 percent of the export sales for these firms were generated by exporting physical goods. From the cumulative frequency distribution table, 22 percent of firms did not offer the service to their export customers at all, and firms are fairly focused on selling physical products.

Table 5.7 Percentage of sales generated through (a) physical products, (b) service

Descriptive statistics	(a)	(b)
Mean	83.98	16.02
Std. Deviation	16.78	16.78
Minimum	20	0
Maximum	100	80
Median	90	10
Percentiles 25	90	1
Percentiles 75	99	30

5.2.5 Target customer group

On average, for the firms in our sample, sales volume generated through business to business sales (33.55 percent) is reported to be half of the sales made directly to consumers (66.45 percent). However, the most common ratio of sales to business and consumers is 20 to 80 percent (mode value in Table 5.8). This ratio is 10 to 90 percent for 75 percent of the firms. In other words, 75 percent of the firms achieved 90 percent of their sales through dealing directly with consumers.

Table 5.8 Target customer groups (a) Businesses[16], (b) Consumers

Descriptive statistics	(a)	(b)
Mean	33.55	66.45
Mode	20	80
Std. Deviation	26.50	26.50
Minimum	0	0
Maximum	100	100
Median	30	70
Percentiles 25	10	50
Percentiles 75	50	90

[16] Note that business consumers could be mainly importing firms in the firm's host countries.

5.3 Respondents' profile

In addition to examining the profile of the participant firms, presenting collective information on the profiles of the respondents in terms of their position in the company, their managerial role and their experience within the role, and their knowledgeability about the subject that matters, is highly valuable in interpreting the result of this study.

All the respondents were key informants of the company dealing with export activities of the firm. However, depending on different organisational structure (e.g. existence of an independent export function or department), number and availability of valid informants in each firm, and firm size, the position of respondents could be different from one firm to the other. In this study, all the respondents could be categorised into four major groups (see Table 5.9). Business executives, which refers to the most senior managers of the companies, provided 16 percent of the data for this study. The highest proportions of respondents, about 47.6 percent, were foreign trade managers who are dealing with all the foreign trade of the company and not only export. The lowest proportion of informants was those in the position of export managers who accounted for less than 10 percent of the respondents who provided data for this study. Other business managers of the company, including sales managers, marketing managers and purchasing managers, who were responsible for exporting activities of some of the firms in our sample are categorised as business senior managers and provided 27.2 percent of the information for this study.

Table 5.9 Position of the informants

Position	Frequency	Percent	Cumulative percent
Business Executive	40	16	16
Foreign Trade Manager	119	47.6	63.6
Export Manager	23	9.2	72.8
Other Business Senior Manager	68	27.2	100
Total	250	100	

In response to the question "are you a person with responsibility for export decision making?", all the respondents answered "yes". However, examining the participants in terms of their employment role, the majority of the respondents, 54 percent, held

junior managers roles within their companies. Only 5.6 percent of the respondents were business owners or managing directors of the company (see Table 5.10).

Table 5.10 Informants' employment role

Employment Role	Frequency	Percent	Cumulative percent
Owner/CEO/Managing Director	14	5.6	5.6
Senior Manager	28	11.2	16.8
Middle Manager	73	29.2	46
Junior Manager	135	54	100
Total	250	100	

As provided in Table 5.11, informants in our sample had an average of 3.5 years of experience in their managerial role. Managers with 3 years of experience were the most common informant in our sample. The least experienced managers accounting for 25 percent of the respondents, reported having 2 years or less of managerial experience. Moreover, only 25 percent of the informants reported four or more years of experience in their managerial role.

Table 5.11 Informants' managerial experience

Descriptive statistics	
Mean	3.46
Mode	3
Std. Deviation	2.13
Minimum	1
Maximum	15
Median	3
Percentiles 25	2
Percentiles 75	4

In order to verify the ability of the respondent to answer the questions in the survey, four questions measuring the respondent's knowledgeability of their firm's export activities were added to the end of the questionnaire. All items were assessed on a 7-point scale.

Results of the exploratory factor analysis (EFA) confirmed the unidimentionality of the scale. The KMO and Bartlett's Test of Sphericity both indicate that the set of variables are at least adequately related to factor analysis.

The KMO measure of sample adequacy was 0.819 above the recommended value of 0.6. The Bartlett's test of sphericity was significant ($\chi 2$ (6) = 573.23, $p < .05$). All

item loadings were above 0.691 and a single factor extracted explained 66.75% of the variance of the four items.

All four items also demonstrated high internal consistency (α= 0.89). As a result, knowledgeability score was calculated by summing and averaging all four items.

As can be seen from Table 5.12, on average the respondents demonstrated a high degree of knowledgeability (Mean=5.46) about the questions they were asked.

Table 5.12 Informants' knowledgeability

Descriptive statistics	
Mean	5.46
Mode	5.5
Std. Deviation	0.9
Minimum	4
Maximum	7
Median	5.5
Percentiles 25	4.75
Percentiles 75	6.06

5.4 Scale development analysis and result

As discussed earlier in chapter four (see Figure 4.2), the four-step procedure recommended by Netemeyer et al., (2003) was followed for developing the scales in this study. Steps 1 and 2 entailed construct definition and generating, judging, and refining the initial item pool (see section 4.4.1.2). Designing and conducting the initial pilot study to develop initial item analysis (see section 4.5) and the related analytical process (see section 4.7) that covers step 3 in scale development were also discussed in chapter four. The data used for this stage (initial item analysis) was collected from a sample of the UK firms. Taking step four to establish further scale properties and finalise the scales, the study main data set, collected from a sample of Chinese firms, was used (see sections 4.6 and 4.7.3). Subsequently, in the following sections, the results of scale development and analysis are illustrated.

5.4.1 Results of the initial item analysis via EFA-developmental sample

Using pilot study data, initial item analysis via conducting EFA helped the researcher to define the underlying structure among the variables. All the factor analyses were performed using the SPSS 23.0 software package. The principle axes factoring method, and oblique rotation were chosen for all the EFAs run for this study. The data used for this stage is called developmental data and is the data collected from the sample of 108 UK firms in the pilot stage (see section 4.5). The total number of variables in this stage was 28, which means that to satisfy the minimum sample size to variable ratio of five to one (Hair et al., 2014), a minimum sample size of 140 was required. Accordingly, in order to avoid violating this criterion, and the following conventional practice (e.g. Baker & Sinkula, 1999; Cadogan, Cui, Morgan, & Story, 2006) the subset analysing strategy was executed. As a result, conceptually similar items were chosen as a sub-group and the initial EFA was run for each group. After conducting individual EFA for each sub-set, all remaining items were entered into a single EFA. All the variables were divided into 2 subset groups as presented in Table 5.13.

Table 5.13 Subset group variables

Subset	Variables (number of items)
Subset 1	Technological Uncertainty (3 items) Cultural Uncertainty (3 items) Demand Uncertainty (3 items) Investment Uncertainty (3 items)
Subset 2	Export Profit Performance (4 items) Export Sales Performance (5 items) Export Marketing Capability (4 items) TCE mindset (3 items)

5.4.1.1 EFA result for subset 1

The first factor analysis was performed on the uncertainty variables (see Table 5.13). All four different types of uncertainties were measured with 12 items. The negative worded items were recoded before conducting the EFA. All items were put in a single test, and the results returned a 4-factor solution. All items loaded on the respective construct significantly (factor loading>0.4). Overall, 63.37 percent cumulative extracted variance was achieved. The factor pattern matrix is presented in Table 5.14. A full list of scale item descriptions is provided in Appendix 5.1.

Table 5.14 Pattern matrix subset 1

	Factor Loadings			
Items	**UTEC**	**UCUL**	**UDEM**	**UINV**
UTEC1	.847			
UTEC2	.909			
UTEC3	.816			
UCUL1		-.733		
UCUL2		-.932		
UCUL3		-.780		
UDEM1			.715	
UDEM2			.503	
UDEM3			.461	
UINV1				.777
UINV2				.919
UINV3				.758
KMO:0.701, Barlett's Test: 588.89 (sig. 0.000), df=66, Total cumulative variance explained:63.37				

Note: UTEC: Technological Uncertainty; UCUL: Cultural Uncertainty; UDEM: Demand Uncertainty; UINV: Investment Uncertainty

5.4.1.2 EFA result for subset 2

The scale items for export performance (both sales and profit satisfaction), export market capabilities, and TCE mindset were analysed together in a single EFA. As shown in Table 5.15, items were loaded strongly on their respective factors. The only exception is profit performance item one, which loaded moderately at 0.579. This value is still well above the acceptable threshold of 0.4. The percent of total variance accounted for by all factors was 69.66.

Table 5.15 Pattern matrix subset 2

	Factor loadings			
Items	**PROFIT**	**SALES**	**EMC**	**TCE-MS**
PFPROF1	.579			
PFPROF2	.818			
PFPROF3	.838			
PFPROF4	.661			
SALVOLS		.774		
SALTURNS		.817		
MSHARES		.796		
NMENTRYS		.773		
SALGROWS		.814		
EMC1			.811	
EMC2			.957	
EMC3			.907	
EMC4			.814	
TCE-MS1				.792
TCE-MS2				.871
TCE-MS3				.822
KMO:0.818, Barlett's Test: 1279.39 (sig. 0.000), df=120, Total cumulative variance explained:69.66				

Note: PROFIT: Export Profit Performance; SALES: Export Sales Performance; EMC: Export Marketing Capability; TCE-MS: TCE- mind set

5.4.1.3 Simultaneous EFA result for all the scales

Having conducted three separate EFA for each subset, and obtained strong loading for each factor, all the items were subject to remain for further factor analysis. At this stage, in order to support the robustness of subset analysis, results for all 28 items were simultaneously entered into an EFA. The result of EFA pattern matrix for the full measurement model is shown in Table 5.16. The simultaneous EFA returned 8 factors, similar to the initial EFAs. All the loadings are above 0.4. The only item with moderate loading of 0.458 is UDEM3. At this developmental stage, this item is not subject to deletion. Further reliability and item-based statistics will help the researcher to judge the item's validity. The percent of total variance accounted for by all the factors was 69.13. The KMO and Barlett's Test values reveal the sample adequacy and factorability of the data. Therefore, these items can be used for further item analysis.

Table 5.16 Pattern matrix for the full measurement model

	Factor Loadings							
Items	**UTEC**	**UCUL**	**UDEM**	**UINV**	**PROFIT**	**SALES**	**EMC**	**TCE-MS**
UTEC1	.863							
UTEC2	.890							
UTEC3	.823							
UCUL1		.716						
UCUL2		.946						
UCUL3		.773						
UDEM1			.629					
UDEM2			.538					
UDEM3			.458					
UINV1				.801				
UINV2				.869				
UINV3				.704				
PFPROF1					.608			
PFPROF2					.770			
PFPROF3					.769			
PFPROF4					.598			
SALVOLS						.766		
SALTURNS						.830		
MSHARES						.780		
NMENTRYS						.755		
SALGROWS						.833		
EMC1							-.812	
EMC2							-.935	
EMC3							-.885	
EMC4							-.822	
TCE-MS1								-.791
TCE-MS2								-.877
TCE-MS3								-.811

KMO:0.733, Barlett's Test: 2067.308 (sig. 0.000), df=378,
Total cumulative variance explained: 69.13

5.4.2 Results of further item-based analysis

As previously stated in chapter four (see section 4.7.2), during the developmental study (pre-test), reliability test and item-based analysis should also be used in conjunction with the initial EFA to purify measures and establish scale properties.

In this study, internal consistency (coefficient alpha), inter-item correlation, and item-total correlation were jointly evaluated using scale reliability technique provided in SPSS 23.0. Accordingly, inter-item correlations and item-total correlations for each scale item were examined against the critical values of 0.3 and 0.35 respectively. Table 5.17 presents all of the inter-item correlations produced for all items in this study. Items of each factor are strongly correlated, nevertheless, UDEM1 and UDEM2 correlation value of 0.33 hardly reached the minimum threshold of 0.35, UDEM2 and UDEM3 correlation value of 0.26 was not considered acceptable.

Table 5.17 Inter-item correlations

UTEC	**1**	**2**	**3**
UTEC1	1.000		
UTEC2	.773	1.000	
UTEC3	.685	.726	1.000

UCUL	**1**	**2**	**3**
UCUL1	1.000		
UCUL2	.667	1.000	
UCUL3	.562	.744	1.000

UDEM	**1**	**2**	**3**
UDEM1	1.000		
UDEM2	.333	1.000	
UDEM3	.437	.263	1.000

UINV	**1**	**2**	**3**
UINV1	1.000		
UINV2	.689	1.000	
UINV3	.656	.681	1.000

PROFIT	**1**	**2**	**3**	**4**
PFPROF1	1.000			
PFPROF2	.422	1.000		
PFPROF3	.414	.761	1.000	
PFPROF4	.486	.542	.655	1.000

SALES	1	2	3	4	5
SALVOLS	1.000				
SALTURNS	.917	1.000			
MSHARES	.659	.651	1.000		
NMENTRYS	.493	.537	.677	1.000	
SALGROWS	.770	.823	.689	.653	1.000

EMC	1	2	3	4
EMC1	1.000			
EMC2	.828	1.000		
EMC3	.758	.870	1.000	
EMC4	.695	.751	.763	1.000

TCE-MS	1	2	3
TCE-MS1	1.000		
TCE-MS2	.686	1.000	
TCE-MS3	.669	.708	1.000

In terms of item-total statistics, the result of corrected item-total correlation is presented in Table 5.18. The corrected item-total values reflect strong correlation of each item with the sum of all remaining items in each scale. However, consistent with the findings from inter-item correlations, corrected item-total correlations value for UDEM items also did not meet the 0.5 criteria. Moreover, the internal consistency of the UDEM scale could not be established as the Cronbach's alpha value was just below the 0.7 threshold equal to 0.610 (see Table 5.18).

As Netmeyer et al., (2003, p. 126) emphasised in their book, "it is always better to retain as many as items at this stage [the early studies of scale development] for further studies. That is, items that do not meet certain statistical criteria or rules of thumb but have face and/or content validity should be retained for the next round of studies. If they continue to perform poorly, they can always be deleted when driving the final form of scale". Subsequently, UDEM items were carried over for the next stage of scale development analysis, while keeping a close eye on them.

The internal consistency of the rest of the scales was established since the value of Cronbach's alpha for each scale was greater than the minimum threshold value of 0.70. Moreover, as can be seen in Table 5.18, items were normally distributed

around their respective mean values. As a result, all the items were retained for further evaluation in the next EFA using main survey data.

Table 5.18 Item-scale correlations and descriptive statistics

Latent variable	Items	Mean	Standard deviation	Corrected Item-Total Correlation	Alpha
UTEC	UTEC1	3.51	1.156	.783	.889
	UTEC2	3.36	1.089	.817	
	UTEC3	3.49	1.156	.749	
UCUL	UCUL1	2.94	1.194	.661	.850
	UCUL2	2.72	1.175	.795	
	UCUL3	2.50	1.037	.715	
UDEM	UDEM1	4.60	1.487	.487	.610
	UDEM2	4.69	1.287	.352	
	UDEM3	5.00	1.408	.435	
UINV	UINV1	3.04	1.529	.733	.861
	UINV2	3.62	1.466	.753	
	UINV3	3.66	1.576	.727	
PROFIT	PFPROF1	3.47	.922	.497	.824
	PFPROF2	3.54	.880	.706	
	PFPROF3	3.28	.975	.748	
	PFPROF4	2.89	.749	.678	
SALES	PFSALE1	4.30	1.178	.824	.917
	PFSALE2	4.29	1.192	.855	
	PFSALE3	3.91	1.107	.758	
	PFSALE4	3.84	1.078	.651	
	PFGROW2	4.10	1.152	.853	
EMC	EMC1	4.34	1.414	.820	.932
	EMC2	4.52	1.390	.898	
	EMC3	4.68	1.243	.870	
	EMC4	4.67	1.310	.784	
TCE-MS	TCE-MS1	5.506	3.6386	.734	.868
	TCE-MS2	4.592	3.6687	.763	
	TCE-MS3	6.374	3.4868	.750	

UTEC = technological uncertainty; UCUL = cultural uncertainty; UDEM = demand uncertainty;
UINV = investment uncertainty; POFIT = export profit performance; SALES = export sales performance; EMC = export marketing capability; TCE-MS = TCE mindset.

5.4.3 Finalising the scales

Following the steps introduced in section 4.4.1.2 (chapter 4) for scale development, the ultimate step is to finalise the scales. This entails, first, conducting EFA and item-based analysis on the main sample. An important indicator of how well the scale performs is the consistency of results between the two studies (Netemeyer et al., 2003). At this stage, items that do not meet the retaining criteria were considered only as candidates for deletion in the CFA analysis that followed.

The necessity of using CFA in addition to EFA and item statistics for establishing dimensionality of the measures were discussed in detail in chapter 4 (see section 4.7.3). Given that correlated errors are a violation of true-score model and may threaten the dimensionality of a scale, CFA can be used to detect the problematic items and to trim items and finally confirm a scale (Floyd et al., 1995; Netemeyer et al., 2003). Accordingly, this study uses CFA to establish validity, reliability and dimensionality of the entire relevant constructs.

The main study data, a sample of 250 Chinese export firms, was used to finalise the scales. All the items in each measurement scale were the same in both the pre-test sample (development study) and the main sample. However, after conducting pre-test and initial analysis of the data, the researcher defined and included three more constructs into the model. These additional new constructs (and their respective measurement items) were behavioural uncertainty (1 item), investment irreversibility (3 items) and partner uncertainty (3 items). Furthermore, one item was added to technological uncertainty measurement scale that made the total number of measurement items equal to 36. The addition of 8 items to 28 items (in the developmental study) was not considered to jeopardise the final measurement properties of the scales, for a number of reasons. First, since the scale development strategy in this study was not to delete items in exploratory analysis before conducting CFA, all the items were carried over to the finalising stage, which means both EFA and CFA were carried out for all items in the final stage. Besides, despite the conventional practice in scale development followed by most researchers in the field (see Table 4.21, chapter 4), this study took a step further and considered conducting an EFA on the developmental sample as well as the main sample. This is when other researchers (specifically PhD researchers), mainly because of time and

budget constraints, only trust conducting EFA and CFA on the (same) main sample of the study. In these cases, conducting the pre-test study is to check face and content validity through an expert judgment of the items. Therefore, using the additional EFA analysis in this study did not intend to raise questions, but to give the researcher more insight into the possible problematic items. Consequently, the researcher could claim that the required tests to establish measurement properties were conducted.

Consistent with initial factor analysis (see section 5.4.1), sample size to measurement items ratio threshold was set to be 5:1 (e.g. Hair et al., 2016). Considering the sample size of 250 and the total number of items being 36, the 5:1 criterion was not violated and all the items were assessed running a single EFA followed by a single CFA.

5.4.3.1 Results of EFA and item-based analysis

To conduct the EFA on the main sample, SPSS 23.0 was used. As justified in section 4.7.1, and consistent with developmental study strategy, principal axes factoring with an oblique rotation method was used to run EFA. The following decision rules were also employed for retaining items: (1) corrected item-total correlation greater than or equal to 0.35, (2) inter-item correlation greater than 0.2, and (3) factor loadings greater than 0.4. However, items with high degree of face validity (judged and confirmed by experts) were not subject to deletion at this stage, even if they did not meet the criteria (Netemeyer et al., 2003).

Pattern matrix containing the factor loading for all the measurement items was produced by running EFA and is presented in Table 5.19. As can be seen from the table, the KMO and Bartlett's test both indicated suitability of the items for factor analysis, a total of 54.95 percent cumulative extracted variance was obtained, and 10 factors were returned. Except for the factor loading of UINV3, which did not reach the threshold of 0.4, all other factors loaded significantly on their respective expected factors.

Table 5.19 Pattern matrix for the full measurement model

	Factor Loadings									
Items	**UTEC**	**UCUL**	**UDEM**	**UINV**	**PROFIT**	**SALES**	**EMC**	**TCE-MS**	**UPART**	**INVIRR**
UTEC1	.602									
UTEC2	.828									
UTEC3	.650									
UTEC4	.654									
UCUL1		.627								
UCUL2		.726								
UCUL3		.671								
UDEM1			.565							
UDEM2			.694							
UDEM3			.665							
UINV1				.470						
UINV2				.740						
UINV3										
PFPROF1					.600					
PFPROF2					.558					
PFPROF3					.760					
PFPROF4					.719					
SALVOLS						.687				
SALTURNS						.770				
MSHARES						.799				
NMENTRYS						.732				
SALGROWS						.722				
EMC1							.774			
EMC2							.871			
EMC3							.775			
EMC4							.705			
TCE-MS1								.833		
TCE-MS2								.622		
TCE-MS3								.471		
UPART1									-.730	
UPART2									-.826	
UPART3									-.856	
INVIRR1										.775
INVIRR2										.859
INVIRR3										.704

KMO:0.726, Barlett's Test: 3477.866 (sig. 0.000), df=595,
Total cumulative variance explained: 54.95

The inter-item correlations are summarised in Table 5.20. It is clear that several items did not reach the recommended threshold of 0.35. The questionable items, also highlighted in Table 5.20, are UDEM3, UINV3, and TCE-MS3. Besides, UTEC1, correlations just exceeded the cut-off point of 0.35. These items also could be subject to deletion based on the results of the further analysis.

Table 5.20 Inter-item correlations

UTEC	**1**	**2**	**3**	**4**	
UTEC1	1.000				
UTEC2	.504	1.000			
UTEC3	.381	.565	1.000		
UTEC4	.363	.557	.570	1.000	

UCUL	**1**	**2**	**3**
UCUL1	1.000		
UCUL2	.516	1.000	
UCUL3	.429	.463	1.000

UDEM	**1**	**2**	**3**
UDEM1	1.000		
UDEM2	.480	1.000	
UDEM3	.322	.465	1.000

UINV	**1**	**2**	**3**
UINV1	1.000		
UINV2	.408	1.000	
UINV3	.211	.253	1.000

PROFIT	**1**	**2**	**3**	**4**
PFPROF1	1.000			
PFPROF2	.473	1.000		
PFPROF3	.482	.516	1.000	
PFPROF4	.415	.413	.639	1.000

SALES	**1**	**2**	**3**	**4**	5
SALVOLS	1.000				
SALTURNS	.644	1.000			
MSHARES	.570	.629	1.000		
NMENTRYS	.509	.504	.576	1.000	
SALGROW	.550	.571	.544	.659	1.000

TCE-MS	1	2	3	
TCE-MS1	1.000			
TCE-MS2	.492	1.000		
TCE-MS3	.393	.303	1.000	

EMC	1	2	3	4
EMC1	1.000			
EMC2	.686	1.000		
EMC3	.606	.651	1.000	
EMC4	.512	.620	.578	1.000

UPART	1	2	3
UPART1	1.000		
UPART2	.594	1.000	
UPART3	.651	.693	1.000

INVIRR	1	2	3
INVIRR1	1.000		
INVIRR2	.682	1.000	
INVIRR3	.517	.601	1.000

The results of item-total correlations are provided in Table 5.21. Considering corrected item-total correlation values, UTEC1, UDEM1, UDEM3, UINV1, UINV2, UINV3, TCE-MS2, and TCE-MS3 did not reach the recommended minimum value of 0.5. The Cronbach's alpha value calculated for each scale in Table 5.21 is consistent with some of the findings from the item-total correlation values. For example, UDEM, and TCE-MS with two non-sufficient items and UINV with the whole scale lacking sufficient inter-item correlations could not achieve the 0.7 cut-off point reliability value. The Cronbach's alpha for the rest of the scales was above the critical recommended value that implies evidence of good internal consistency for these scales.

Table 5.21 Item-scale correlations and descriptive statistics

Latent variable	Items	Mean	Standard deviation	Corrected Item-Total Correlation	Alpha
UTEC	UTEC1	4.20	1.335	.495	0.794
	UTEC2	4.20	1.395	.685	
	UTEC3	4.06	1.334	.628	
	UTEC4	3.95	1.393	.614	
UCUL	UCUL1	3.69	1.247	.553	0.727
	UCUL2	3.90	1.287	.579	
	UCUL3	3.90	1.257	.513	
UDEM	UDEM1	4.09	1.245	.468	0.687
	UDEM2	3.92	1.294	.580	
	UDEM3	3.90	1.302	.459	
UINV	UINV1	3.84	1.361	.391	0.551
	UINV2	4.03	1.318	.426	
	UINV3	4.20	1.329	.276	
PROFIT	PFPROF1	3.35	.876	.551	0.792
	PFPROF2	3.22	.714	.572	
	PFPROF3	3.11	.925	.690	
	PFPROF4	2.74	.798	.610	
SALES	SALVOLS	4.21	.993	.684	0.870
	SALTURNS	4.17	1.02	.710	
	MSHARES	3.95	.999	.702	
	NMENTRYS	4.00	1.103	.681	
	SALGROWS	4.08	1.138	.708	
EMC	EMC1	4.04	1.372	.696	0.860
	EMC2	4.34	1.400	.775	
	EMC3	4.47	1.226	.712	
	EMC4	4.73	1.419	.651	
TCE-MS	TCE-MS1	4.84	2.416	.549	0.662
	TCE-MS2	5.19	2.510	.476	
	TCE-MS2	4.89	2.457	.402	
UPART	UPART1	3.63	1.580	.679	0.846
	UPART2	3.69	1.530	.711	
	UPART3	3.61	1.627	.751	
INVIRR	INVIRR1	3.67	1.584	.669	0.818
	INVIRR2	3.66	1.551	.737	
	INVIRR3	3.76	1.576	.609	

Comparing the item analysis results of both developmental study and main study, reveals that UDEM1 consistently performs weakly. However, as emphasised earlier, at this stage, these poor performing items are only candidates for deletion. The final decision on item removal or retention will be based on the CFA results.

5.4.4 Confirmatory factor analysis

In the scale development process, CFA is used to confirm the measurement model, and test internal consistency and validity of the measure. As discussed in chapter four, section 4.7.3, the CFA was conducted using the LISREL 8.71 package and ML method.

All of the constructs in the measurement model had multi-item measurement scales. The only exception was behavioural uncertainty, which reflects "the difficulty of measuring sales performance of all the export ventures" that had a single item scale. This measure was borrowed from previous studies (Anderson & Schmittlein, 1984; e.g. Anderson, 1985; John & Weitz, 1988). As discussed by Petrescu (2013, p.113) (2013, p. 113) "easy-to-understand and concrete constructs" can be successfully measured through one item. Although CFA allows for inclusion of single item measures, as noted by scholars (e.g. Hair et al., 2014), the problem with these measures is that their loadings and error terms cannot be estimated in the CFA. Thus, it is the responsibility of the researcher to specify these values carefully before running the analysis. Different ways of setting factor loadings and error terms are suggested in the marketing literature. In this study, following Schumacker and Lomax (2004), the error variance of this single item was calculated using the below formula:

*Error variance of a single item = (1- α reliability) * variance of the item*

Accordingly, the reliability of the item is assumed to be an acceptable value of 0.7, and the variance of the item is calculated in SPSS. So, the error variance for a behavioural uncertainty item was calculated as [(1-0.7)*1.49] equal to 0.4. The associated factor loading (λ) will be set to 1 for this single item (Byrne, 2013).

For the rest of the constructs, all the correspondent measurement items were entered into the CFA. In order to achieve identification, for each set of variables

related to a construct, the factor loadings (λ) of one of the items (usually the marker variable[17]) must be fixed to one and therefore they are not to be estimated[18] (Byrne, 2013).

As can be seen in Table 5.22, the initial result of CFA returned a converged solution but the fit statistics were not acceptable.

To improve the model fit, as discussed in chapter four (see section 4.7.3.2), items with low factor loading, and/or high value of standardised residual are a potential problem and have to be further investigated. Consequently, poor performing items were removed, and the model was re-specified and re-estimated until an acceptable fit was achieved. This process included removing 8 problematic items in 8 different stages. One item at a time was removed to diagnose the problem. The order of item deletion was as follows:

UINV3, EMC4, SALEGROW, MENTRY, UINV1, UCUL3, INVIRR1, INVIRR2, PPROF4

Due to the model re-specification, investment uncertainty and investment irreversibility constructs became a single-item scale. Accordingly, the error term for UINV2 and INVIRR1 was calculated following the formula of Schumacker and Lomax (2004) and set to 0.52, and 0.75, respectively. The result of the last CFA fit indices is illustrated in Table 5.22. All indices exceeded recommended thresholds of 0.9; RMSEA value was less than 0.05.

Moreover, χ2 value is not significance (p= 0.07). Moreover, since the normed chi-square value (χ^2/df) and other different type of fit indices meet the recommended threshold, one can conclude that the hypothesised relationships in the measurement model are consistent with the sample data and the model is fit (Hu & Bentler, 1995; MacKenzie et al., 2011).

Given the reduced number of variables to 28 after item deletion, the second CFA was run meeting the criteria ratio of 5:1 for the sample size of 250.

[17] Since the marker item is assumed to be best representing of the construct (where true score is very close to observed score), there is no error in observed value. So, the loading can be fixed to one and the error term to zero (Hair et al., 2014)

[18] Because a latent variable is unmeasured, its units of measurement must be fixed by the researcher. Each construct must have one fixed nonzero loading (usually 1.0) (Kenny, 2011).

Table 5.22 CFA results: measurement model fit indices

Model CFA	X^2 (df)	p-value	ΔX^2 (Δdf)	RMSEA	NNFI	IFI	CFI	GFI	SRMR
Initial model	926.57 (540)	0.00000	-	0.0536	0.859	0.882	0.879	0.829	0.0689
Second model	307.68 (272)	0.06736	618.89 (268)	0.0278	0.978	0.984	0.983	0.916	0.0452

The factor loadings (with their respective t-values) are reported in Table 5.23. All the factor loadings were significantly positive with considerably high t-values, ranging from 4.94 to 14.66. However, the lowest factor loading obtained was 0.49 linking TCE-MS construct to its third item (TCE-MS3). Two other factor loadings for UTEC1 and MSHARES items also fell below 0.6. Moreover, the corresponding standard error for these items was relatively high. As can be seen in Table 5.23, some other items including TCE-MS2, UTEC1, UDEM3, and EMC3 held an approximately high error variance, however, they did not appear to be significantly harming the model fit. In addition, these items held relatively high factor loading estimates. Thus, taking into account that a satisfactory model fit was achieved (see Table 5.22), decisions on deletion or retaining of these items were subject to further investigation in terms of the reliability and (convergent) validity of the constructs.

Table 5.23 CFA results: item statistics

Construct of interest	Variable	Standardised factor loading	t-value	error
TCE mindset (TCE-MS)	TCE-MS1	0.809	fixed	0.345
	TCE-MS2	0.608	5.913	0.63
	TCE-MS3	0.49	5.522	0.76
Partner Uncertainty (UPART)	UPART1	0.751	fixed	0.436
	UPART2	0.793	11.833	0.372
	UPART3	0.874	12.160	0.237
Technological Uncertainty (UTEC)	UTEC1	0.565	8.115	0.681
	UTEC2	0.774	fixed	0.401
	UTEC3	0.753	8.023	0.433
	UTEC4	0.721	7.870	0.479
Cultural Uncertainty (UCUL)	UCUL1	0.781	fixed	0.39
	UCUL2	0.694	7.460	0.519
Demand Uncertainty (UDEM)	UDEM1	0.764	fixed	0.417
	UDEM2	0.697	8.678	0.514

Construct of interest	Variable	Standardised factor loading	t-value	error
	UDEM3	0.598	7.886	0.643
Investment Uncertainty (UINV)	UINV2	0.83	fixed	0.312
Behavioural Uncertainty (UBEH)	UBEH	0.848	fixed	0.28
Investment Irreversibility (INVIRR)	INVIRR1	0.754	fixed	0.431
Profit Performance (PROFIT)	PFPROF1	0.732	fixed	0.465
	PFPROF2	0.936	11.200	0.125
	PFPROF3	0.647	9.909	0.582
Export Marketing Capability (EMC)	EMC1	0.829	fixed	0.312
	EMC2	0.93	14.655	0.136
	EMC3	0.607	10.335	0.631
Sales Performance (SALES)	SALVOLS	0.753	fixed	0.433
	SALTURNS	0.704	7.201	0.505
	MSHARES	0.519	6.238	0.731

5.4.5 Construct validity

Construct validity is essential in confirming a measurement model (Hair et al., 2014). In this study, different aspects of construct validity, including convergent, discriminant, and nomological validity, were examined accordingly. Face validity and content validity of the constructs were established in the pre-test phase of the study, as noted in chapter four.

CFA provides a range of information that can be used to examine convergent validity of the construct. First, the estimated factor loadings and error variance of the variables are to be assessed with regards to their magnitude and statistical significance. As noted earlier in section 5.4.4, although the final measurement model retained a good fit, some items were diagnosed to be potential threats to the validity of the constructs. These items were considered the prime candidates for deletion if adequate evidence of convergent validity was not provided (Hair et al., 2014).

To further investigate the convergent validity, both composite reliability (CR) and average variance extracted (AVE) of the constructs were calculated using the formula illustrated in chapter four (see section 4.7.3.3). Not all of the calculated CR and AVE values met the recommended threshold values. As can be seen in Table

5.24, the AVE value for TCE-MS, UDEM, and SALES were just below the 0.5 cut-off point. The CR value for the TCE-MS construct did not meet the 0.7 cut off point.

This result suggests a need for scale improvement. However, not achieving the reliability and validity for these variables is not far from expectation as the factor loading and error variance of some of their items were marginally accepted (see section 4.5.4). To refine the model, first TCE-MS3, and MSHARES were removed due to their high error variance. Running the CFA, the model did not converge. In order to re-specify the model, in addition to the result of the previous CFA (see Table 5.23), the results of the EFAs and item statistics were also taken into consideration. Appendix 5.2 provides a trace of poorly performing items in different assessments undertaken in different steps of the scale development.

Table 5.24 Summary Statistics, Correlation Matrix and Discriminant Validity of the Constructs (second model CFA)

	TCE-MS	UPART	UTEC	UCUL	UDEM	UINV	UBEH	INVIRR	PROFIT	EMC	SALES
TCE-MS	1	0.000	0.004	0.024	0.009	0.006	0.003	0.007	0.001	0.052	0.004
UPART	0.016	1	0.052	0.007	0.005	0.007	0.004	0.009	0.001	0.019	0.008
UTEC	-0.063	0.229	1	0.102	0.073	0.015	0.042	0.113	0.043	0.000	0.002
UCUL	0.155	0.085	0.320	1	0.213	0.013	0.137	0.179	0.100	0.041	0.000
UDEM	0.097	0.072	0.270	0.462	1	0.002	0.074	0.235	0.092	0.031	0.005
UINV	-0.076	-0.082	0.124	0.116	-0.039	1	0.000	0.003	0.001	0.020	0.096
UBEH	0.050	0.061	0.205	0.370	0.272	0.010	1	0.403	0.076	0.000	0.001
INVIRR	0.083	0.097	0.336	0.423	0.485	-0.055	0.635	1	0.047	0.000	0.000
PROFIT	0.025	0.032	0.208	0.317	0.303	0.024	0.276	0.217	1	0.053	0.000
EMC	0.227	-0.137	-0.022	0.202	0.176	-0.141	-0.008	0.006	0.230	1	0.000
SALES	0.063	-0.090	0.042	0.006	0.074	-0.310	-0.030	-0.015	0.018	0.155	1
CR	0.677	0.848	0.799	0.704	0.729	NA	NA	NA	0.820	0.839	0.701
AVE	0.421	0.652	0.501	0.544	0.476	NA	NA	NA	0.610	0.641	0.444

Note: Correlations are below the diagonal, squared correlations are above the diagonal, and AVE and CR estimates are presented in separate rows

Accordingly, more items were removed from the model in the following order:

UDEM3, TCE-MS2, EMC3, UTEC1, and UDEM2

The final CFA converged and the relatively high fit indices suggest that the measurement model provides a very good fit. The result of the final CFA overall fit along with the previous CFAs results are provided in Table 5.26.

Table 5.25 CFAs results: measurement model fit indices

Model CFA	X^2 (df)	p-value	ΔX^2 (Δdf)	RMSEA	NNFI	IFI	CFI	GFI	SRMR
Initial model	926.57 (540)	0.00000	-	0.0536	0.859	0.882	0.879	0.829	0.0689
Second model	307.68 (272)	0.06736	618.89 (268)	0.0278	0.978	0.984	0.983	0.916	0.0452
Final Model	111.02 (120)	0.70942	196.66 (152)	0.000	1.007	1.004	1.000	0.957	0.0311

Having achieved an acceptable overall fit for the CFA model, now it is appropriate to proceed to further examinations of the model result. Table 5.26 displays factor loading estimates and error variance of the items. . All items loaded on their construct well above 0.7 with the exception of PFPROF3, and SALTURNS's loadings fall just below 0.7. The error estimation of the items is relatively low and within the acceptable range of 0.054 to 0.578, with the exception of SALTURNs being above 0.7, which does not appear to harm the model fit.

Table 5.26 CFA results: item statistics

Construct of interest	Variable	Standardised factor loading	t-value	error
TCE mindset (TCE-MS)	TCE-MS1	0.837	fixed	0.299
Partner Uncertainty (UPART)	UPART1	0.75	fixed	0.438
	UPART2	0.793	11.818	0.371
	UPART3	0.875	12.140	0.235
Technological Uncertainty (UTEC)	UTEC2	0.73	fixed	0.467
	UTEC3	0.783	9.862	0.386
	UTEC4	0.737	9.657	0.457
Cultural Uncertainty (UCUL)	UCUL1	0.779	fixed	0.394
	UCUL2	0.696	7.485	0.516
Demand Uncertainty (UDEM)	UDEM1	0.816	fixed	0.334
Investment Uncertainty (UINV)	UINV2	0.83	fixed	0.312
Behavioural Uncertainty (UBEH)	UBEH	0.848	fixed	0.28
Investment Irreversibility (INVIRR)	INVIRR1	0.754	fixed	0.431
Profit Performance (PROFIT)	PFPROF1	0.736	fixed	0.459
	PFPROF2	0.931	11.187	0.134
	PFPROF3	0.65	9.935	0.578
Export Marketing Capability (EMC)	EMC1	0.816	fixed	0.334
	EMC2	0.946	11.314	0.106
Sales Performance (SALES)[19]	SALVOLS	0.972	fixed	0.054
	SALTURNS	0.54	4.344	0.708

Convergent validity of the construct could also be established since all items loaded significantly on their respective factor without any cross-loading and correlated error

[19] It is notable that, the Sales Performance (SALES) construct is to be used as a control variable to predict profit performance in the final conceptual model (see chapter 6, section 6.3.4). Since the error variance for SALTURNS is larger than the factor loading for this item, and to avoid any concern about quality of the SALTURNS measure, the final profit performance model is also run with a single factor sale performance (SALVALS). As presented in Appendix 5.3, even by removing the SALTURNS, and running the model with a single item sale performance (SALVOLS), the significance of relationship and hypothesis in the profit performance model remains consistent, which enhances confidence in our findings.

being evident. Achieving acceptable CR (all above 0.7) and AVE (all above 0.5) also suggests high convergent validity for all constructs in this study (see Table 5.27).

To assess discriminant validity, the AVEs for any two constructs were compared with squared correlations between them (Fornell & Larcker, 1981). As a result, it can be argued that all the AVEs appeared to be higher than any squared correlations which provides a good evidence of discriminant validity. Consequently, the results of the model can be taken as proof of robustness of the measurement items used in this study. The result of convergent and discriminant analysis of the final model is provided in Table 5.27.

Table 5.27 Summary Statistics, Correlation Matrix and Discriminant Validity of the Constructs (final model CFA)

	TCE-MS	UPART	UTEC	UCUL	UDEM	UINV	UBEH	INVEST	PROFIT	EMC	SALES
TCE-MS	1	0.000	0.004	0.033	0.034	0.002	0.008	0.018	0.007	0.047	0.000
UPART	0.02	1	0.055	0.007	0.002	0.007	0.004	0.009	0.001	0.018	0.002
UTEC	-0.064	0.235	1	0.085	0.058	0.020	0.040	0.112	0.040	0.005	0.000
UCUL	0.183	0.086	0.292	1	0.227	0.013	0.138	0.180	0.100	0.040	0.000
UDEM	0.185	0.046	0.24	0.476	1	0.000	0.047	0.305	0.085	0.025	0.015
UINV	-0.044	-0.082	0.143	0.116	0.014	1	0.000	0.003	0.001	0.019	0.091
UBEH	0.092	0.061	0.201	0.371	0.217	0.01	1	0.403	0.077	0.001	0.002
INVEST	0.134	0.097	0.335	0.424	0.552	-0.055	0.635	1	0.047	0.000	0.001
PROFIT	0.081	0.033	0.199	0.317	0.291	0.023	0.277	0.217	1	0.052	0.000
EMC	0.216	-0.133	-0.07	0.2	0.158	-0.137	-0.024	0	0.229	1	0.020
SALES	0.019	-0.041	0.003	-0.004	0.124	-0.301	-0.043	-0.038	0.004	0.14	1
CR	NA	0.848	.794	0.705	NA	NA	NA	NA	0.821	0.876	0.750
AVE	NA	0.652	0.563	0.545	NA	NA	NA	NA	0.610	0.780	0.619

Note: Correlations are below the diagonal, squared correlations are above the diagonal, and AVE and CR estimates are presented in separate rows

5.4.6 CMV assessment

As discussed in section 4.7.3.5, to further assess the potential problem of CMV, Harman's one-factor test was adopted. Based on the result provided in Table 5.28, the fit achieved for the constrained one-factor model is far from being accepted. This is when the measurement model attained an excellent fit. Hence, it was concluded that CMV was not an issue in this study and did not pose a threat to the results.

Table 5.28 CFAs results: measurement model fit indices

Model (CFA)	X^2 (df)	p-value	ΔX^2 (Δdf)	RMSEA	NNFI	IFI	CFI	GFI	SRMR
Measurement Model	111.02 (120)	0.7094	196.66	0.000	1.007	1.004	1.000	0.957	0.0311
Harman's single-factor model	1514.1 (170)	0.0000	-1402 (50)	0.178	0.199	0.293	0.284	0.622	0.166

After obtaining an acceptable measurement model, the score for each latent variable was calculated by averaging the items belonging to each construct. These constructs were then used to assess the regression model, as illustrated in the next chapter.

5.5 Descriptive analysis of individual scales

For the purposes of subsequent hypotheses testing, a single score was created for the multi-item construct measures. Following the established guidelines in the psychometric literature (e.g. Churchill, 1979; Ping, 2004), the average scores were calculated for all the items measuring each construct. For single item constructs, the item score used as the construct score.

Subsequently, the descriptive analysis for each scale was provided to summarise them and make their main features more transparent. Normality of each scale was also examined by assessing values for skewness (balance of the distribution) and kurtosis (height of the distribution) of each scale (Bollen, 1989). Although large kurtosis is more problematic than skewness (Bollen, 1989), the rule of thumb is to have skewness values between –2.0 and +2.0 and kurtosis between -3.0 and +3.0 to claim a variable is normally distributed (Tabachnick & Fidell, 2007).

In the sections below, the results of the descriptive analysis for all the constructs are presented. Results revealed that none of the scale scores deviated significantly from normality. Hence, the scales can be used in hypotheses testing.

5.5.1 TCE mindset

As can be seen from the graphical representation in Figure 5.2, and descriptive statistics provided in Table 5.29, the TCE mindset is normally distributed. The mean of the scale is 4.84 and its standard deviation is 2.416. This variable returned skewness and kurtosis values of 0.230 and -0.805, respectively, which are within the critical values. The distribution is slightly flatter compared to an absolute normal distribution.

Figure 5.2 TCE mindset frequency distribution

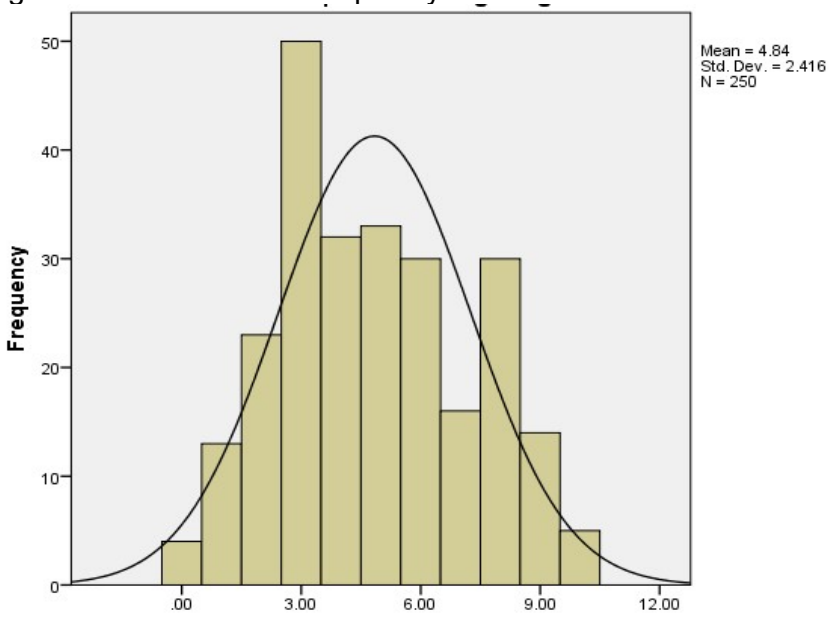


Table 5.29 TCE mindset descriptive statistics

Mean	4.84
Median	5
Mode	3
Std. Deviation	2.416
Minimum	0
Maximum	10
Skewness	.230
Kurtosis	-.835

5.5.2 Partner uncertainty

Figure 5.3 reproduces the frequency distribution of the partner uncertainty scale. The mean value is 3.64 while the standard deviation is 1.381. The results provide support for the normality of the partner uncertainty distribution with skewness and kurtoisis values of -.259 and -.713 which demonstrates a slightly flatter and left-shifted distribution compared to an absolutely normal distribution.

Figure 5.3 Partner uncertainty frequency distribution

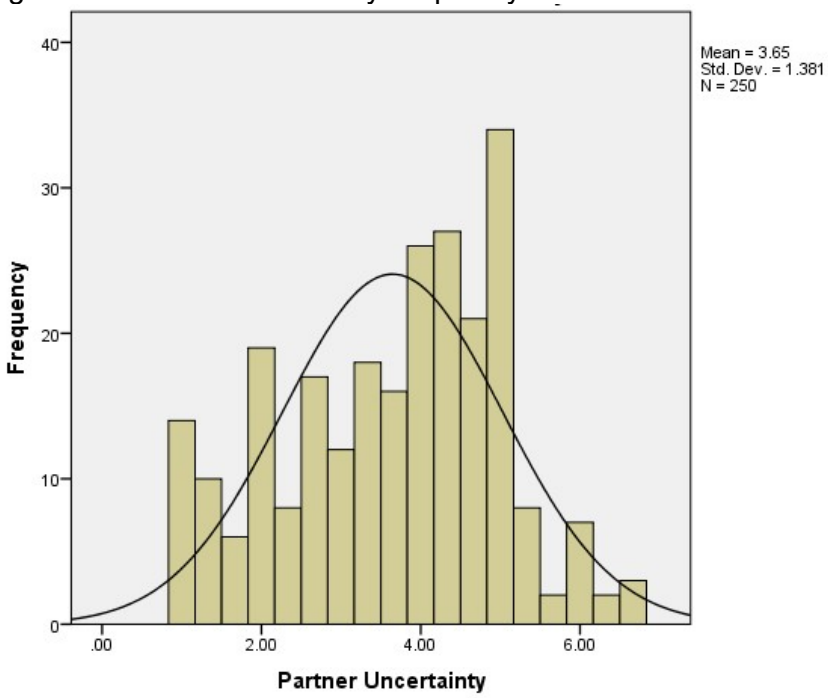


Table 5.30 Partner uncertainty descriptive statistics

Mean	3.64
Median	4
Mode	5
Std. Deviation	1.381
Minimum	1
Maximum	6.67
Skewness	-.259
Kurtosis	-.713

5.5.3 Technological uncertainty

As can be seen in Figure 5.4, the distribution of the technological uncertainty construct is considered normal. The descriptive statistics also support the normal distribution of the variable (skewness - 0.275 and kurtosis - 0.056), with mean of 4.07 and standard deviation of 1.157 (see Table 5.31 for more details).

Figure 5.4 Technological uncertainty frequency distribution

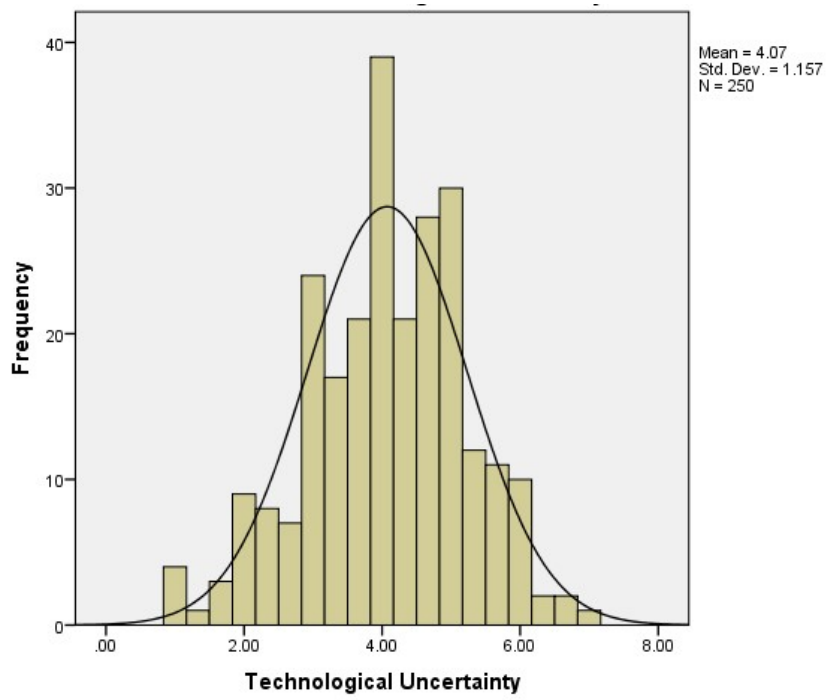


Table 5.31 Technological uncertainty descriptive statistics

Mean	4.07
Median	4.00
Mode	4.00
Std. Deviation	1.157
Minimum	1
Maximum	7
Skewness	-.275
Kurtosis	-.056

5.5.4 Cultural uncertainty

Figure 5.5 provides information on the frequency distribution of the cultural uncertainty scale. Descriptive statistics provided in Table 5.32 illustrates a mean value of 3.79, and standard deviation of 1.103. This construct is considered normal, as the values of skewness and kurtosis are substantially within the critical value. The distribution is slightly flatter and shifted to the left compared to an absolutely normal distribution.

Figure 5.5 Cultural uncertainty frequency distribution

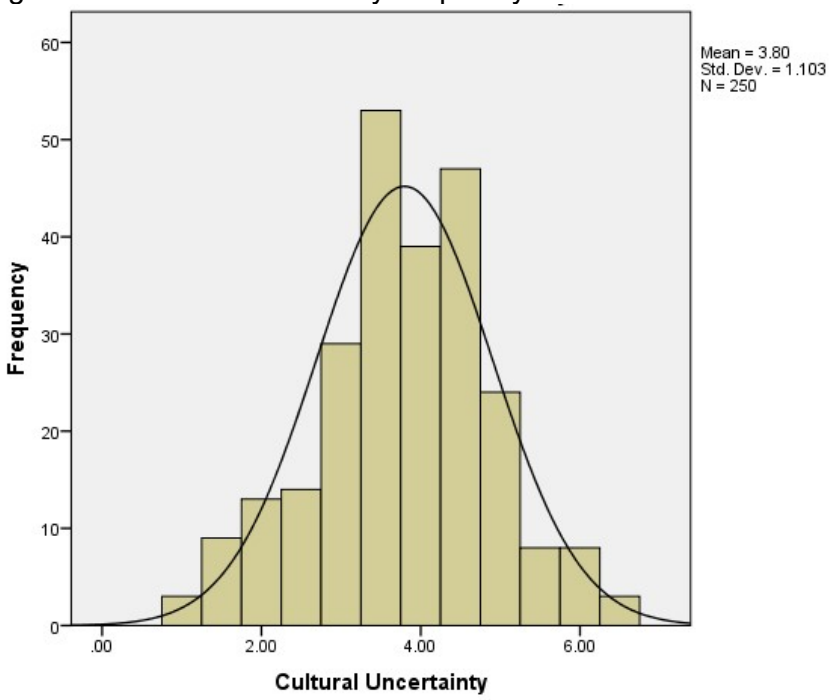


Table 5.32 Cultural uncertainty descriptive statistics

Mean	3.79
Median	4
Mode	3.50
Std. Deviation	1.103
Minimum	1
Maximum	6.50
Skewness	-.160
Kurtosis	.015

5.5.5 Demand uncertainty

For demand uncertainty scale, the results are showing slightly negatively skewed distribution (skewness 0.425 and kurtosis 0.115) compared to an absolutely normal distribution, with mean of 4 and standard deviation of 1.092. Descriptive statistics and frequency distributions are represented in Table 5.33, and Figure 5.6 respectively.

Figure 5.6 Demand uncertainty frequency distribution

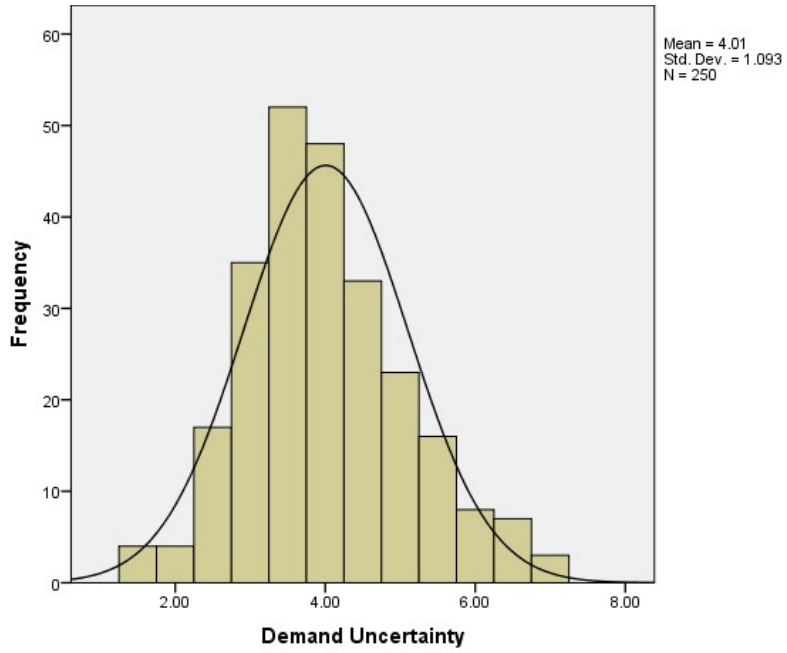


Table 5.33 Demand uncertainty descriptive statistics

Mean	4
Median	4
Mode	3.50
Std. Deviation	1.092
Minimum	1.50
Maximum	7
Skewness	.425
Kurtosis	.115

5.5.6 Investment uncertainty

The results indicate that the distribution of the investment uncertainty construct can be considered normal, as the skewness and kurtosis values are -0.109 and 0.014 and are substantially close to zero. The mean value is 4.03 almost equal to the standard normal distribution when the values are ranged from 1 to 7. See Figure 5.7 and Table 5.34 for graphical presentation and more detailed information.

Figure 5.7 Investment uncertainty frequency distribution

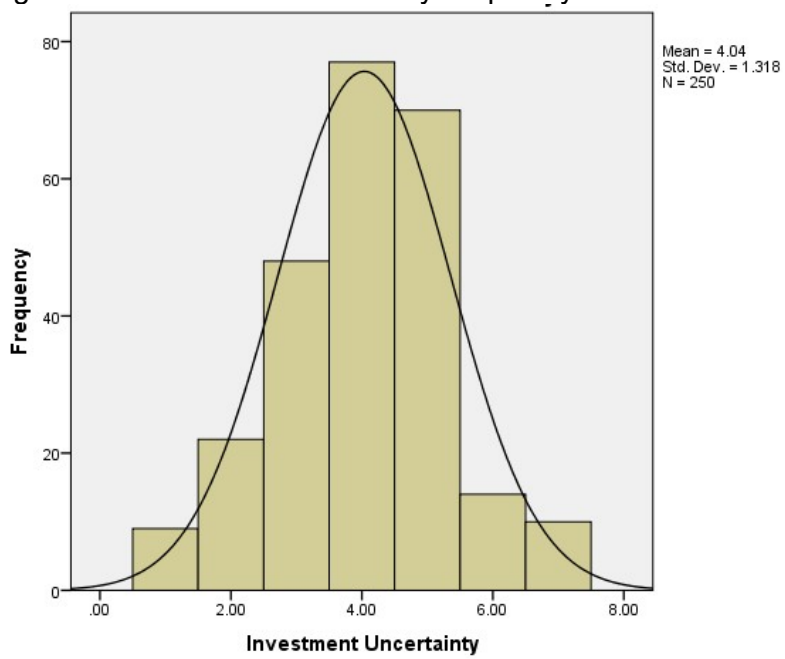


Table 5.34 Investment uncertainty descriptive statistics

Mean	4.03
Median	4
Mode	4
Std. Deviation	1.318
Minimum	1
Maximum	7
Skewness	-.109
Kurtosis	.014

5.5.7 Behavioural uncertainty

The distribution of the behavioural uncertainty, which is graphically displayed in Figure 5.8, represents a normal distribution. As can be seen in Table 5.35, the mean of 4.52 is slightly above the mid-point scale (standard deviation is 1.219), however, the distribution appeared to be normal, with kurtosis of -0.166 and skewness of 0.320.

Figure 5.8 Behavioural uncertainty frequency distribution

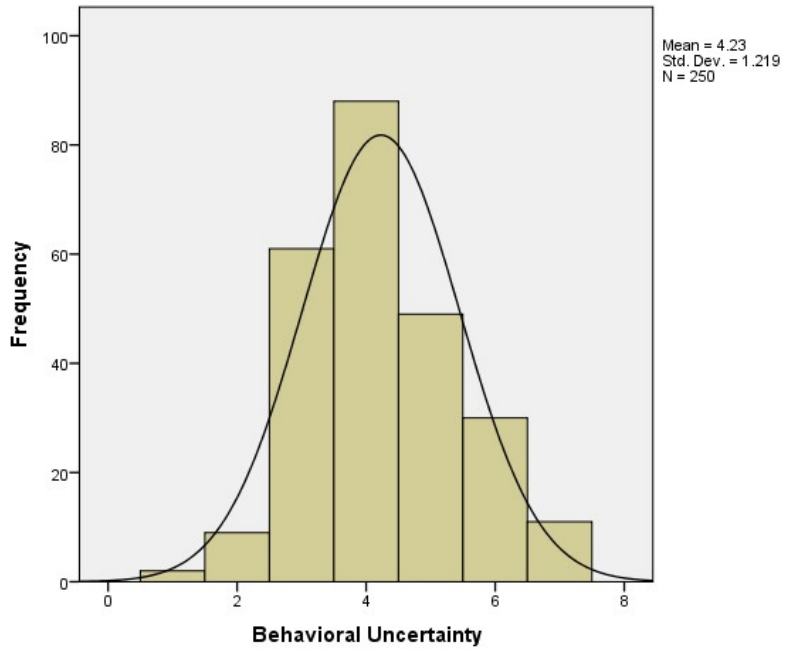


Table 5.35 Behavioural uncertainty descriptive statistics

Mean	4.23
Median	4
Mode	4
Std. Deviation	1.219
Minimum	1
Maximum	7
Skewness	.320
Kurtosis	-.166

5.5.8 Investment irreversibility

Figure 5.9 reproduces the histogram for the investment irreversibility scale. According to the results (Table 5.36), distribution is slightly positively skewed (skewness = 0.411) and slightly flatter than absolutely normal distribution (kurtosis = -0.345). The mean value is slightly lower than natural value of 3.5, with a standard deviation of 1.584. This is taken as proof of the scale's normal distribution.

Figure 5.9 Investment irreversibility frequency distribution

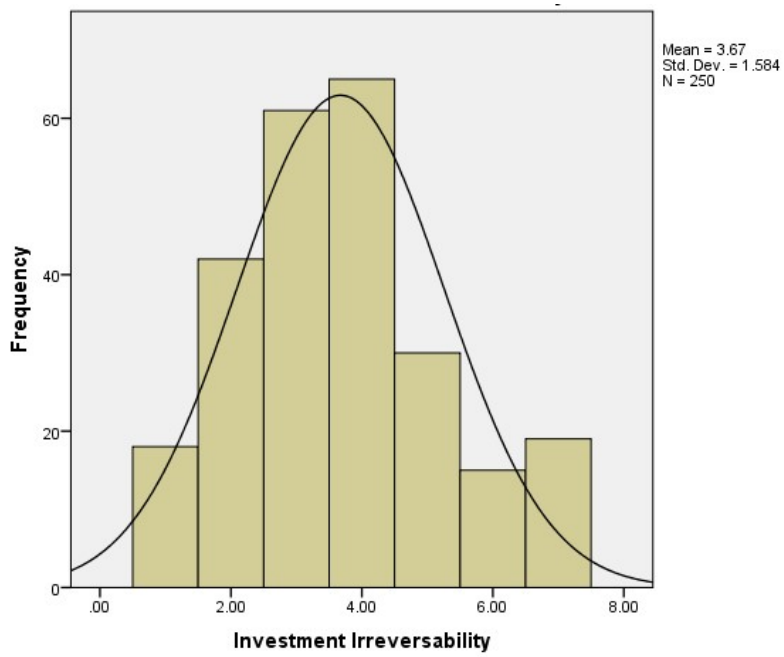


Table 5.36 Investment irreversibility descriptive statistics

Mean	3.67
Median	4
Mode	4
Std. Deviation	1.58
Minimum	1
Maximum	7
Skewness	.411
Kurtosis	-.345

5.5.9 Asset specificity: R&D expenditure

Figure 5.10 reproduces the histogram for the R&D expenditure scale. The descriptive statistics support the normal distribution of the variable (skewness -0.776 and kurtosis 1.20), with mean of 2.56 and standard deviation of 1.061 (see Table 5.37 for more details).

Figure 5.10 Asset specificity frequency distribution

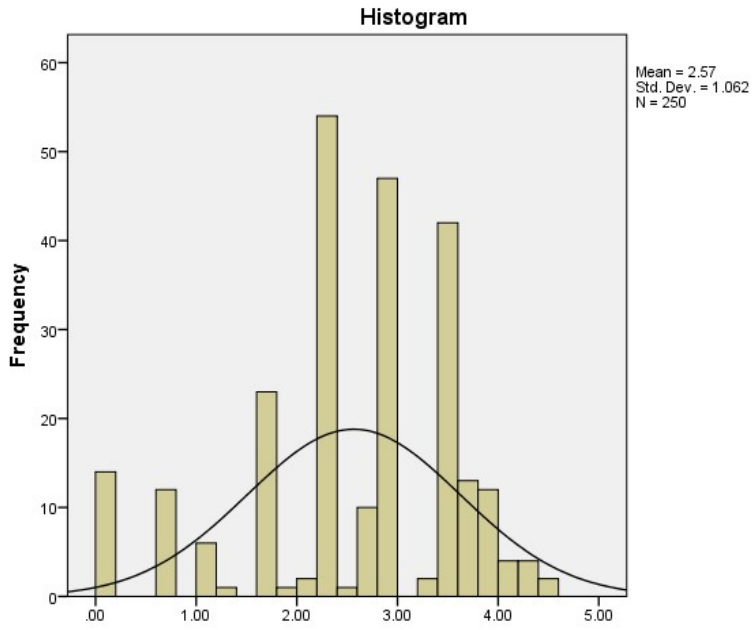


Table 5.37 Asset specificity descriptive statistics

Mean	2.56
Median	2.97
Mode	2.30
Std. Deviation	1.061
Minimum	.00
Maximum	4.5
Skewness	-.776
Kurtosis	.120

5.5.10 Asset specificity: Export marketing capability

The results presented in Table 5.38 indicate that the distribution of the export marketing capability construct can be considered normal, as the values of kurtosis (-0.357) and skewness (-0.230) statistics are within the acceptable range. The distribution is slightly flatter and is slightly shifted to the left compared to an absolutely normal distribution (see Figure 5.11). The mean value is 4.19 with standard deviation of 1.273.

Figure 5.11 Export marketing capability frequency distribution

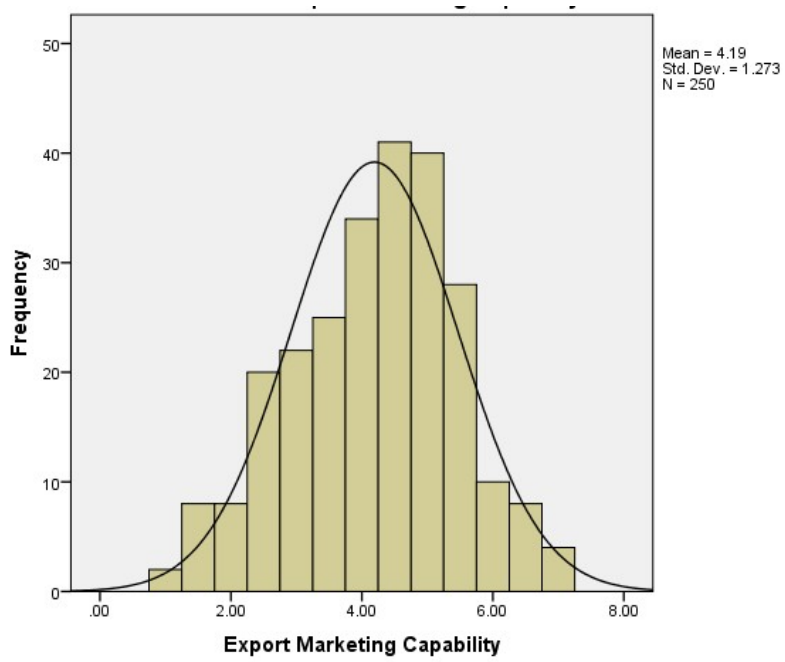


Table 5.38 Export marketing capability descriptive statistics

Mean	4.19
Median	4.5
Mode	4.5
Std. Deviation	1.272
Minimum	1
Maximum	7
Skewness	-.230
Kurtosis	-.357

5.5.11 Export profit performance

Figure 5.12 presents the frequency distribution of export profit performance. Values ranged from 1.33 to 5 with a mean of 3.23 (standard deviation = 0.683). The results provide the support for the normality of the profit performance distribution. However, the distribution is slightly peaked (kurtosis= 0.264) and is slightly shifted to the left (skewness = -0.350) compared to an absolutely normal distribution (see Table 5.39).

Figure 5.12 Export profit performance frequency distribution

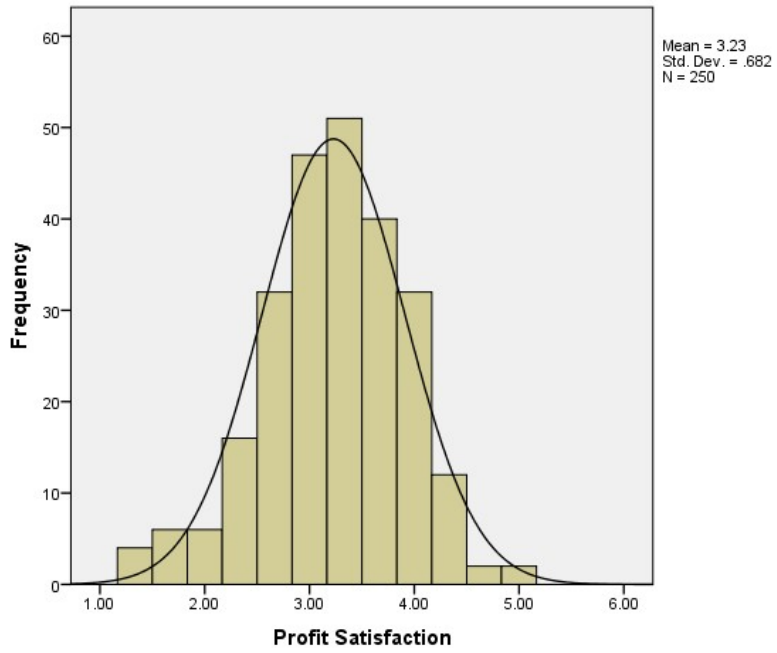


Table 5.39 Export profit performance descriptive statistics

Mean	3.23
Median	3.33
Mode	3.33
Std. Deviation	.681
Minimum	1.33
Maximum	5
Skewness	-.350
Kurtosis	.264

5.5.12 Export sales performance

In the case of the export sales performance scale, the results are not skewed or peaked (skewness 0.001and kurtosis 0.081). With mean of 4.19 and standard deviation of 0.914, this scale appeared to be quite normally distributed. Figure 5.13 and Table 5.40 represent the results.

Figure 5.13 Export sales performance frequency distribution

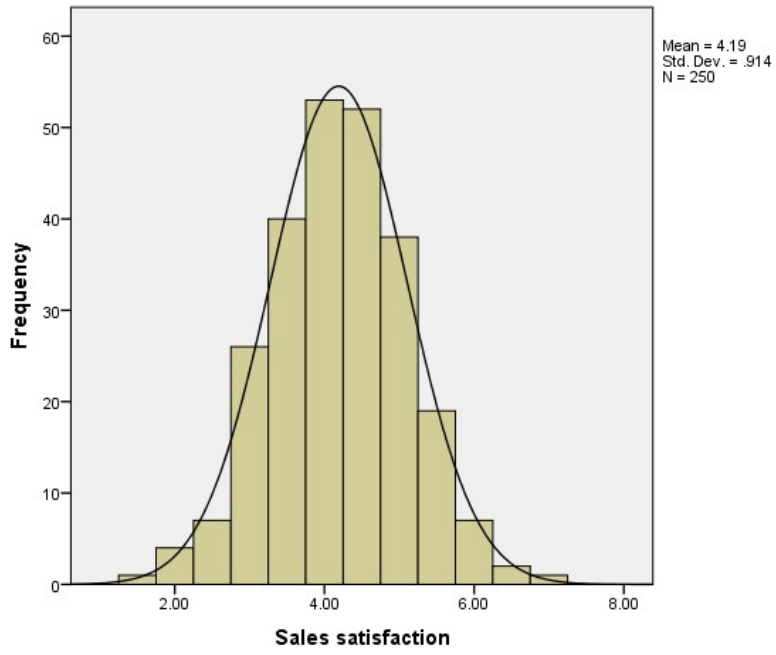


Table 5.40 Export sales performance descriptive statistics

Mean	4.19
Median	4
Mode	4
Std. Deviation	.914
Minimum	1.50
Maximum	7
Skewness	.001
Kurtosis	.081

5.5.13 Export entry portfolio variables

Export entry portfolio variables are calculated based on the export mode portfolio scale illustrated in chapter 4. There are four variables created to reflect the degree of the different composition of the entry mode that a firm could adopt. These variables, which are rated between 0 and 1, are defined based on the theoretical definition and calculated as follows:

1) Degree of Internalisation: This is calculated as the relative percentage of the firm's internalised portfolios to the whole firm entry mode portfolio.

This is equal to:

INTERNAL= (FDI+REPS+DIREC) / (DIST+AGENT+FDI+REPS+COLL+DIREC)

Where:

FDI = percentage of the firm export marketing operations performed directly by "people operating from the firm's foreign offices and subsidiaries"

REPS = percentage of the firm export marketing operations performed directly by "salaried sales representative that operating in the firm's foreign markets"

DREC = percentage of the firm export marketing operations performed directly by "people operating from the domestic office (and not travelling overseas)"

DIST = percentage of the firm export marketing operations performed directly by "foreign importers and distributors"

AGENT = percentage of the firm export marketing operations performed directly by "foreign sales agents"

COLL = percentage of the firm export marketing operations performed directly by "collaborations (e.g. Joint Ventures, piggy backing, commercial franchising, or licencing)"

It is worth mentioning that the sum of the above entry mode options for each firm was asked to be 100%.

2) Degree of Joint-Investment: This is calculated as the relative percentage of the firm's shared export marketing activities to the whole firm entry mode portfolio.

This is equal to:

JOIN_INV = (COLL+AGENT) / (DIST+AGENT+FDI+REPS+COLL+DIREC)

3) Degree of sole-investment: This is calculated as the relative percentage of the firm's solely operated export marketing activities (by presence in the foreign country) to the whole firm entry mode portfolio.

This is equal to:

SOLE_INV = (FDI+REPS) / (DIST+AGENT+FDI+REPS+COLL+DIREC)

4) Degree of no-investment: This is calculated as the relative percentage of the firm's export marketing activities without any investment in the host country to the whole firm entry mode portfolio.

This is equal to:

NO_INV = (DIST+DIREC) / (DIST+AGENT+FDI+REPS+COLL+DIREC)

In the following section, the descriptive analysis of the above variables will be discussed.

5.5.13.1 Degree of Internalisation

Figure 5.14 demonstrates the histogram for the degree of internalisation scale. Deceptive statistics illustrated in Table 5.41 show the mean value for the scale is 0.64 with standard deviation of 0.239. The scale ranges from a minimum of 0 to maximum of 1. The scale is negatively skewed (skewness = -0.492) and is flatter (kurtosis = -0.810) than an absolutely normal distribution, however with these statistics still within the range, the scale is considered normal.

Figure 5.14 Degree of internationalisation frequency distribution

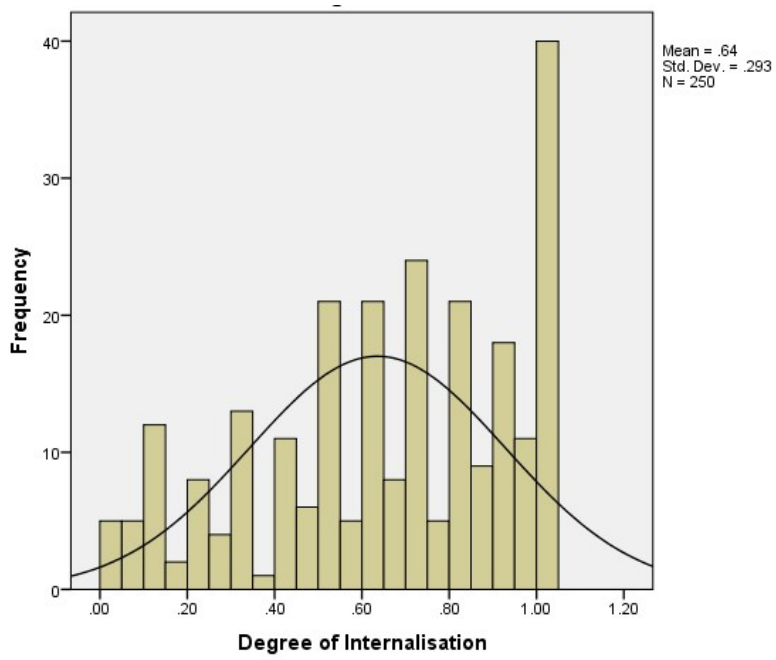


Table 5.41 Degree of internationalisation descriptive statistics

Mean	.635
Median	.7
Mode	1.
Std. Deviation	.293
Minimum	0
Maximum	1
Skewness	-.492
Kurtosis	-.810

5.5.13.2 Degree of Joint-Investment

As can be seen from Figure 5.15, the scale is negatively skewed. A further analysis shows that the variable returned skewness and kurtosis values of 1.117 and 0.899 respectively. These values are within the acceptable range, thus the skewness is not of any serious concern. Data is ranged from 0 to 1 reflecting export entry mode of the firm has no Joint-Investment, and only Joint-Investment respectively. On average firms have 21 percentage of their export marketing activities through joint investment (mean = 0.216, standard deviation = 0.211).

Figure 5.15 Degree of Joint-Investment frequency distribution

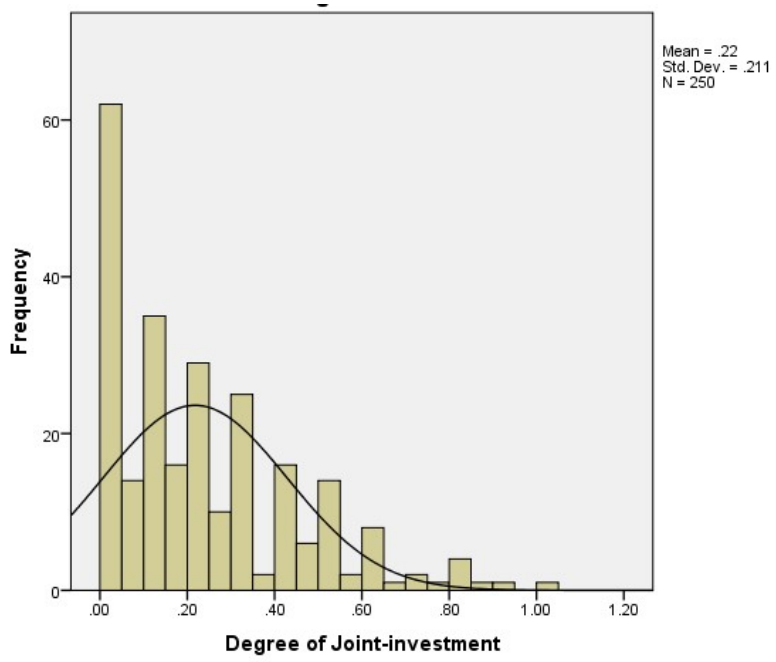


Table 5.42 Degree of Joint-Investment descriptive statistics

Mean	.217
Median	.16
Mode	0
Std. Deviation	.211
Minimum	0
Maximum	1
Skewness	1.117
Kurtosis	.899

5.5.13.3 Degree of No-Investment

Figure 5.16 provides information on the frequency distribution of the degree of no-investment scale. The mean value is 0.66 while the standard deviation is 0.288. The minimum and maximum are 0 and 1 respectively. The values of kurtosis and skewness statistics are -0.407 and -1.208 respectively. The distribution is flatter and slightly shifted to the left compared to an absolutely normal distribution.

Figure 5.16 Degree of No-Investment frequency distribution

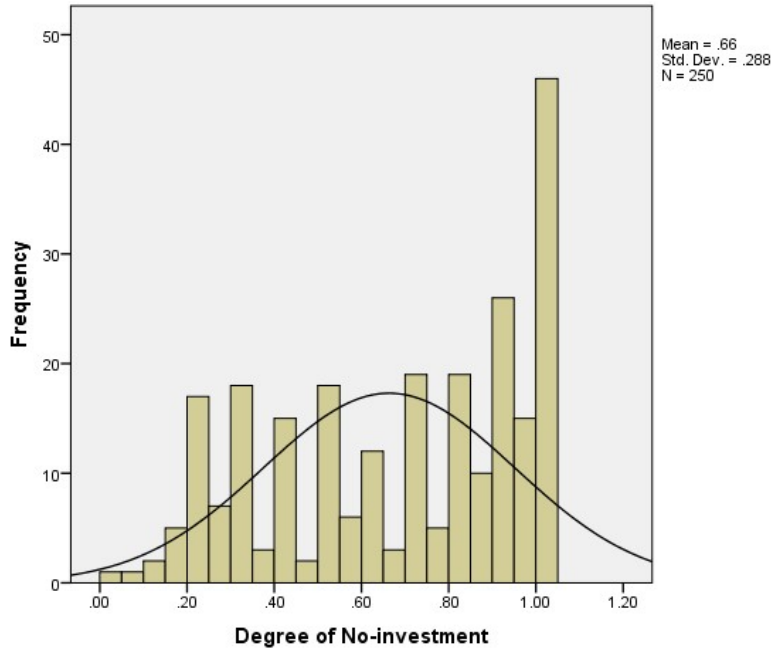


Table 5.43 Degree of Internationalisation descriptive statistics

Mean	.663
Median	.7
Mode	1
Std. Deviation	.288
Minimum	0
Maximum	1
Skewness	-.405
Kurtosis	-1.208

5.5.13.4 Degree of Sole-Investment

In Figure 5.17 a histogram for the Sole-Investment scale is presented. Skewness and kurtosis values are 1.397 and 1.626, respectively. According to the results, deviation from normality is slightly higher compared to the other constructs; however, the values are still within the critical range. The mean value is 0.12 with a standard deviation of 0.154. With the maximum value of 0.8 in the range, no firm in the sample operates their export marketing activities by 100 percent Sole-Investment. More information can be found in Table 5.44.

Figure 5.17 Degree of Internationalisation frequency distribution

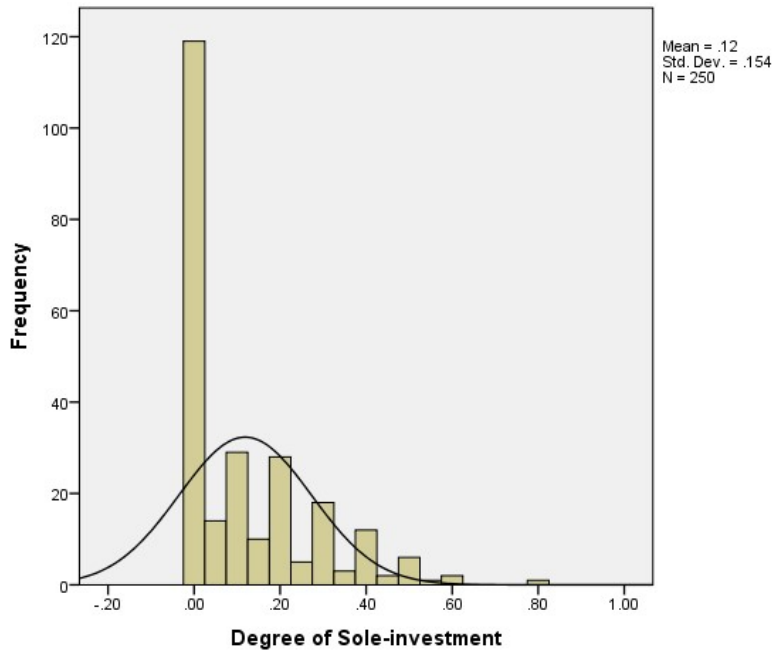


Table 5.44 Degree of Internationalisation descriptive statistics

Mean	.119
Median	.05
Mode	0
Std. Deviation	.154
Minimum	0
Maximum	.80
Skewness	1.397
Kurtosis	1.626

5.6. Chapter summary

In this chapter, first, a descriptive profile of the sample was illustrated in detail. Then, the results of construction and purification processes for measures used in the study were presented. Conducting both EFA and CFA analysis on the pilot study data and main sample, unidimensionality, reliability and validity of measures were established. The chapter concluded that CMV bias is not likely to influence the relationship between the constructs. Consequently, considering reliability and validity of the scales, the average scores were calculated for all the items measuring each construct. All constructs were subject to descriptive analysis to make sure they were ready for the next step in the analysis, hypothesis testing. This is the subject of chapter 6, which follows.

Chapter 6: Hypothesis Testing and Results

6.1 Introduction

The purpose of this chapter is to test the hypotheses developed in chapter 3 and present the results and findings. Accordingly, the use of multiple regression analysis to test the hypothesis of this study will be discussed. The chapter continues with a discussion of the analysis strategy chosen for this study. The result of regression analysis is presented and discussed, subsequently.

6.2 Multiple regression analysis: testing hypotheses

This study adopts the multiple regression approach to analyse the hypothesised relationships in different sub-models rather than other analytical approaches, such as structural equation modelling (SEM), for a number of reasons. First, dependent variables of the study models (TCE-model, and RO-models) are calculated as a proportion of certain entry modes in the portfolio of export mode. These variables are all directly measured, thus do not have latent nature (i.e. factors defined by indicators). However, the focal interest in SEM is on theoretical constructs, which are represented by the latent factors (Hair et al., 2014).

Moreover, consistent with the study's theoretical foundation, testing the performance outcomes of the export mode portfolio requires developing a misalignment measure that assesses the fit between the export mode portfolio of the firm and its theoretically-driven independent variables. To create the misalignment variable, following previous marketing and strategy scholars (e.g. Katsikeas et al., 2006; Venkatraman & Prescott, 1990; Zeriti et al., 2014), residual analysis is going to be adopted. Consequently, the absolute standardized residuals that resulted from the estimation of a regression model are needed to be saved (as misalignment variables) and regressed onto performance. Therefore, to test the hypotheses of the study, the implementation of a two-stage multiple regression analysis is suggested. The regression strategy applied for each stage is explained in detail in section 6.2.2.1.

Multiple regression is the most used multivariate technique; its application falls into answering two broad categories of research questions: prediction and explanation (Allison, 1999; Hair et al., 2014). Applications of regression analysis can address either or both types of these research questions. While prediction is the extent to which variation in independent variables can predict the dependent variable, explanation assesses the magnitude, sign, and statistical significance of the regression coefficients for each independent variable.

Multiple regression analysis is a multivariate statistical technique used to analyse the relationship between one dependent variable (continuous) and a number of independent variables (usually continuous). In this technique, each independent variable is weighted by the regression analysis procedure to ensure maximal prediction from a linear combination of independent variables (Hair et al., 2014).

The multiple regression model can be articulated as follows:

$$Y=A+B_1 X_1 +B_2X_2+... +B_kX_k+ e$$

where, Y is the dependent variable, A is the Y intercept (the value of Y when all the X values are at zero), Xs represent the various independent variables (K in the number of independent variable), and Bs are the regression coefficients that reflect the amount of change in the dependent variable due to a unit change in independent variable (Tabachnick & Fidell, 2007). The prediction error (e) is the difference between the actual and predicted values of the dependent variable, and is called the residual.

The mathematical procedure to determine best-fit line to data in regression analysis is least square (Cohen, Cohen, West, & Aiken, 2013). This method estimates the best values for Bs such that the sum of the squared errors (SS_E) of prediction is minimized (Hair et al., 2014). As stated earlier, one of the main objectives of multiple regression is to maximise the overall predictive power of the independent variables. To justify the application of the regression analysis, one must achieve acceptable levels of predictive accuracy (Hair et al., 2014).The most commonly used measure of predictive accuracy for the regression model is the coefficient of determination (R^2).

This value reflects the percentage of the dependent variable variation, which is explained by combining the independent variables and the intercept. It ranges from 1 (perfect prediction) to 0 (no prediction). An adjusted R^2 is also given along the R^2 in the results. It reflects the R^2 that has been adjusted for the number of predictors in the model. This value increases only if a new independent variable improves the model more than would be expected by chance (Hair et al., 2014).

Another measure of predictive accuracy is standard error of the estimate (SE_E) which is defined as "a measure of variation in the predicted values that can be used to develop confidence intervals around any predicted value" (Hair et al., 2014, p.156). Where R^2 describes the model fit, SE_E provides information on the degree of predictability in the unit of the dependent variable (Soyer & Hogarth, 2012). In fact, SEE allows the researcher to understand the confidence interval that can be expected for any prediction from the regression model if multiple samples of data were taken.

To interpret the multiple regression result, there are a number of statistical estimations that the SPSS statistical package provides, which have to be interpreted, including:

Regression coefficient: if the regression coefficient is found to be statistically significant, the value of the coefficient explains the extent to which the independent variable change is associated with the dependent variable (Hair et al., 2014). The interpretations of the significant variables are the same for both models with high and low R^2 values (Frost, 2014). In addition to (unstandardized) regression coefficient (B), multiple regression also provides standardised regression coefficient (β) that is resulted from standardised data. The advantage of β is that it provides a common unit of measurement and helps to compare the different variables and determine the variable with most impact (Cohen et al., 2013; Hair et al., 2014).

Coefficient of determination: Although (adjusted) R^2 provides an estimate of the strength of the relationship between the model variables, it does not provide a formal hypothesis test for the relationship. In fact, it is the overall F statistics which determines whether this relationship is statistically significant. If the P value

associated with F statistics is significant, it can be concluded that the R^2 value is significantly different from zero (Hair et al., 2014).

Additional considerations:

Multicollinearity: A key issue in interpreting the multiple regression result is the potential presence of multicollinearity (Hair et al., 2014). "Multicollinearity arises when intercorrelations among the predictors are very high" (Malhotra, Birks, & Wills, 2012, p.724). Presence of multicollinearity could make it difficult to assess the relative importance of the independent variables in explaining the dependent variable (Malhotra et al., 2012; Tabachnick & Fidell, 2007). The initial means of assessing multicollinearity is to examine the correlation matrix for the independent variables. It is suggested that a high correlation between any two pairs of constructs (generally 0.8 and higher) implies that multicollinearity is an issue (Hair et al., 2014). In addition to pair wise collinearity assessment through correlation matrix, multiple-variable collinearity could be measured by tolerance and the variance inflation factor (VIF) (Hair et al., 2014). For any regression model with two or more independent variables, high degree of multicollinearity is reflected in low tolerance statistics (below 0.1) and high VIF values (greater than 10) (Hair et al., 2014). The multicollinearity was checked for the regression models, but none was found to be present in the data (see Appendix 6.1, for collinearity statistics of all regression models in the study).

Sample size considerations

Sample size has a direct impact on the statistical power of significance testing and generalisability of the result. In multiple regression, power refers to “the probability of detecting statistically significant a specific level of R^2 or a regression coefficient at a specific significant level for a specific sample size” (Hair et al., 2014, p.170)[20]. Moreover, to be able to generalize the results, the sample size should be taken into account together with the number of independent variables (Hair et al., 2014). A general rule is that the ratio of observation to independent variable should never fall

[20] For detailed information on the interplay among the sample size, the significance level chosen and the number of independent variables in detecting significant R2, see Hair et al. (2014, pp.170-171).

below 5:1. When this level is reached, the result should be generalisable if the sample is representative.

In the current study, the minimum ratio is 250:10=25:1, which is well above the recommended ratio of 5:1 and reflects the generalisability of the results.

6.2.1 Assumptions underpinning multiple regression

There are several assumptions to be met, before differencing any relationship between dependent and independent variables in multiple regression. These include linearity of the relationship between dependent and independent variable(s), as well as normality, homoscedasticity, and independence of the error term (Hair et al., 2014; Tabachnick & Fidell, 2007).

Linearity: a multiple regression can only accurately estimate the relationship between dependent and independent variables if the relationships are linear in nature (Osborne & Waters, 2002). The linear link between entry mode, its antecedents and the performance are fairly established in the marketing and international marketing empirical research. Therefore, in this study the linear relationship was hypothesised.

Homoscedasticity: means that the variance of errors is constant across all levels of the independent variable. When the variance of errors differs at different values of the independent variable, heteroscedasticity is indicated (Osborne & Waters, 2002). The presence of heteroscedasticity is one of the most common assumption violations (Hair et al., 2014). This assumption can be tested by visual examination of a plot of the standardized residuals by the regression standardized predicted value. Heteroscedasticity by itself does not pose bias in the coefficient estimates (Allison, 1999). However, there are different methods to reduce heteroscedasticity including applying the weighted least square, and transforming the dependent variable (Hair et al., 2014). The problem with transformation is that it “fundamentally changes the nature of the relationship between dependent and independent variables, and makes coefficients more difficult to interpret”. Having said that, “moderate heteroscedasticity hardly leads to serious bias in standard errors” (Allison, 1999, p.128).

Using the graphical method is the most common way to investigate the presence of heteroscedasticity. The most formative plot is where the standardised residual is regressed on the standardised predicted values. Absence of any pattern in the data can confirm the homoscedasticity assumption (see Appendix 6.2).

Error independence: the residuals of observations must be independent of one another (Cohen, Cohen, West, & Aiken, 2003). One source of the correlated disturbance term is when the behaviour of one person in a sample affects the behaviour of another person in the same sample (Allison, 1999). The most serious cases of correlated disturbance are likely to arise when the same individuals are measured at multiple points in time (e.g. in panel survey designs) (Allison, 1999). It also could occur when the unit of analysis is grouped or clustered in some way (Miles & Shevlin, 2001). If the sample is selected randomly from a large population, it is unlikely that correlated disturbances will be a problem (Allison, 1999). It is worth mentioning that the most common statistic test used to test for correlation in the residuals of relationships is Durbin-Watson statistic which has implications for relationships containing lagged endogenous variables (Nerlove & Wallis, 1966), which is not the case for the current study.

Normality: it should be kept in mind that the normality assumption tests the normality of the residuals and not the dependent and independent variables (Alison, 1999). It also is referred to the least important of the assumptions that its violation is frequently encountered (Allison, 1999; Hair et al., 2014). If the sample is moderately large, the normality assumption can be dispensed with entirely. Larger sample size (200 or more) increases statistical power by reducing sampling error (Tabachnick & Fidell, 2007) which reduces the detrimental effects of non-normality (Hair et al., 2014). Hence, the sample size of 250 for the current study allows for toleration of slight departures from normality if they occur.

In addition to sample size, graphical examination of the residual using normal probability plot is recommended to check this assumption (Hair et al., 2014). The normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal; for a normal distribution, it is expected that the residual will closely follow the diagonal. As Cohen et al. (2003, p. 41) stated, “Fortunately, the available evidence suggests that moderate departure from assumptions will usually

result in little error of inference [when the data are treated as if assumptions were valid]". They continue, "in large samples, non-normality of the residuals does not lead to serious problems with interpretation of either significant tests, or confidence intervals." (Cohen et al., 2003, p.120)

Before running the regression analyses for the current study, the assumptions underpinning regression were examined through the visual inspection of each regression's residuals normal probability plots, and scatter plots (see Appendix 6.2). The regression analyses and the results are as follows.

6.2.2 Regression strategy and estimation technique

There are two main types of regression estimation technique, namely confirmatory specification and sequential search method. In the sequential (stepwise) search method, independent variables are included in a regression equation based on their incremental contribution over the previous variable(s). Whereas in the confirmatory specification approach, the researcher specifies the independent variable to be included in the regression equation in which they entered to the equation simultaneously (Malhotra et al., 2012).

One application of multiple regression that is compatible with the confirmatory approach to modelling is concerned with the comparison of two or more alternative or competing models (Hair et al., 2014). Although the selected models should be statically significant, the focus in this approach is on the relative predictive power among models (Hair et al., 2014).

In this research, a combination of both methods was adopted. As such, a different group of variables (variable blocks) were entered into the regression equation hierarchically (in sequence) according to theoretical concerns. Each block was then assessed in terms of their improvements to the model fit. On the other hand, all the independent variables were specified to be included in the model based on the theoretical considerations of the study to compare different theoretical-based models. This way, in addition to maximizing the prediction power, the multiple regression is used to compare two or more sets of independent variables in predicting a dependent variable. To interpret the results of the regression, the size of

the R-square change[21] for each step and its significance is an indicator of the size of the new sets of variables effect.

The regression strategy and the order of variables entered to each regression equation are illustrated in the next sections.

6.2.2.1 Regression strategy

As stated earlier, this study has four dependent variables (three types of export mode profiles and the profit performance). To test the hypothesis, a two-stage ordinary least square (OLS) regression analysis was used. In the first stage, the determinants of the export mode portfolio were used to predict this variable. In the second stage, the misalignment variables were calculated and used to predict and compare performance implications of each mode portfolios. The regression strategy applied for each stage is explained in detail in the following sections.

Stage one: determinants of the export mode portfolio

As explained earlier, this study presents two alternative explanations for entry mode portfolio based on two different theories in the literature. First, from the transaction cost perspective, this study examines the effect of some well-established independent variables to predict entry mode portfolio. Second, taking into account the real options approach, different sets of independent variables are assessed in relation to export mode portfolio.

Thus, this study aims to compare different theoretical lenses used to predict different entry mode portfolio of the firm and then examine the performance implication of each theory. To keep the comparison feasible, the independent and control variables of each model were kept the same, and only the dependent variable was replaced in each model.

The regression model for each independent variable was built in a series of steps, by adding different sets of variables at a time. As such, for each independent variable, three different regression analyses were carried out. First, only four general control variables (export scope, firm size, export experience, TC mindset of the firm) were

[21] R-square change is the increase in R-square that results from the inclusion of one or more variables into a regression model.

entered as independent variables. Then competing theories' variables were added as a second group of controls, and finally, theory related variables as the main effect variables were entered. This way, the effect of theory related variables were estimated, while controlling for the effect of competing theory variables. As illustrated in Figure 6.1, the values of R2 for each step can be compared to the next one and the significant test assessed to see if the change in R2 is statistically significant, or is likely to have arisen by chance.

Figure 6.1 Stage one – predicting the whole model for different dependent variables (export mode portfolios)

	Step 1		Step 2		Step 3	
	Beta	t-value	Beta	t-value	Beta	t-value
Control variables						
Rival Theory variables (as control)						
Main Theory variables (main effects)						
R2						
Adjusted R2						
F statistics						
Sig. F change						

Stage two: performance implications

Testing the performance outcomes of the export mode portfolio requires developing a misalignment measure that assesses the fit between the export mode portfolio of the firm and its theoretically-driven independent variables. The underlying hypothesis is that the misalignment (fit) is negatively (positively) related to the performance.

As explained in chapter three, the current study considers the "fit as matching" approach in order to compare the relationship between performance and the misalignment of different theoretically-predicted export mode portfolios of the firm. Thus, to create the misalignment variable, following previous marketing and strategy scholars (e.g. Katsikeas et al., 2006; Venkatraman & Prescott, 1990; Zeriti et al., 2014), residual analysis was adopted. Accordingly, the absolute standardized residuals that resulted from the estimation of a regression model based only on the

significant contextual factors were regressed onto performance. High levels of this residual specify high levels of misalignment between export mode portfolio and the theoretically-related independent variables, and that is expected to have a negative effect on performance.

As such, first, the regression analysis was run for the whole model (as explained in stage one). Then, building on the first-stage regression models, significant variables (only those related to the theory, not the controls regressed on the dependent variable), were regressed on the same dependent variable. The standardised residual of this estimation of regression was saved (see Figure 6.2). To analyse fit, as illustrated in Figure 6.3, the "absolute" standardized residuals, called misalignment, were regressed on the profit performance variable (Katsikeas et al., 2006; Zeriti et al., 2014). The results are discussed in section 6.3.4.

Figure 6.2 Stage 2.1 – incorporating significant variables related to the main theory to predict each dependent variable and save the residual.

	Beta	t-value
Significant Main Theory variables (main effects)		
R2		
Adjusted R2		
F statistics		

Figure 6.3 Stage 2.2 – predicting profit performance by misalignment variables

	Beta	t-value
Control variable		
TCE misalignment (DOI)		
RO misalignment (DOJI)		
RO misalignment (DONI)		
R2		
Adjusted R2		
F statistics		
Sig. F change		

6.3 Hypothesis testing results

6.3.1 Correlation matrix

Table 6.1 presents Pearson correlations between the variables analysed subsequently. The statistically significant correlations at different levels of confidence are indicated by asterisks beside the parameter estimates. The strong correlation between some variables is discussed along with the regression analysis results.

The correlation matrix containing all the bivariate correlations also confirms that multicollinearity does not pose a problem to the current study results and all the variables can be included in the regression models. The correlation between each pair of constructs is not greater than the recommended threshold of 0.80 (Hair et al., 2014).[22]

[22] Further tests of multicollinearity will be carried out as part of regression analysis by testing the VIF (Variance Inflation Factor) values of all independent and control variables in the regression model.

Table 6.1 Correlation matrix of all the variables included in different models

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	**SCOPE**	1																	
2	**SIZE**	0.067	1																
3	**YRSEX**	.165**	.266**	1															
4	**RDP**	-0.107	-.174**	-.184**	1														
5	**EMC**	.172**	0.114	0.009	-.256**	1													
6	**UPART**	-0.057	-0.058	0.026	0.028	-0.032	1												
7	**UBEH**	-.154*	-0.022	-0.071	.188**	-.213**	-0.003	1											
8	**TCE-MS**	0.105	0.003	0.043	-0.116	0.062	0.018	-.128*	1										
9	**UINV**	-0.031	0.03	0.002	-0.007	-.184**	0.054	.127*	0.084	1									
10	**UDEM**	-.193**	-0.002	-0.082	0.016	-0.117	-0.106	.221**	-0.039	-0.095	1								
11	**UTEC**	-0.089	-0.058	0.022	.185**	-0.08	.192**	0.05	-0.043	.219**	0.073	1							
12	**UCUL**	-0.002	-0.104	0.007	-0.039	-0.059	0.056	0.024	0.103	.303**	-0.087	.224**	1						
13	**INVIRR**	0.026	-0.01	0.009	-0.008	.172**	0.099	0.01	0.059	.142*	-0.108	0.078	.164**	1					
14	**PROFIT**	.177**	0.027	0.095	-.172**	.233**	0.033	-.327**	0.024	-0.051	-.353**	-0.057	0.04	0.021	1				
15	**SALES**	0.047	-0.033	0.025	-0.001	0.02	-0.016	-.192**	-0.073	-.161*	-0.084	0.054	-0.038	-0.018	.392**	1			
16	**DOI**	-0.003	-0.036	0.000	-0.012	0.065	0.064	0.072	0.078	.149*	0.032	-0.084	-.127*	-0.01	0.009	-0.056	1		
17	**DOJI**	-0.065	0.016	-0.012	0.076	-.152*	-0.036	-0.023	-0.063	-0.04	-0.083	.138*	.138*	-0.051	-0.097	0.022	-.789**	1	
18	**DONI**	0.098	-0.092	0.018	-0.048	.155*	0.032	0.015	0.036	-0.013	0.119	-.154*	-.178**	0.04	0.037	-0.046	.672**	-.853**	1

**. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed).

SCOPE = firm export scope; SIZE = firm size; YRSEX = firm export experience; RDP = asset specificity in terms of R&D investment; EMC = asset specificity in terms of export marketing capability; UPART = partner uncertainty; UBEH = behavioural uncertainty; TCE-MS = TCE mindset; UINV = investment uncertainty; UDEM = demand uncertainty; UTEC = technological uncertainty; UCUL = cultural uncertainty; INVIRR =investment irreversibility; POFIT = export profit performance; SALES = export sales performance; DOI =degree of internalisation; DOJI = degree of Joint-Investment; DONI = degree of No-Investments

6.3.2 Hypothesis testing–TCE model

The first sets of hypotheses (including H1a, H1b, H2, H3a, and H3b) to be tested are TCE-based hypotheses. To test these hypotheses, the following multiple linear regression was estimated using ordinary least square and the SPSS 23 statistical package:

$DOI = \beta 1 * UPART + \beta 2 * UBEH + \beta 3 * UINV + \beta 4 * RDP + \beta 5 * EMC + \beta i * Xi + \varepsilon 1$

where:

DOI = Degree of internalisation;

UPART = Partner Uncertainty;

UBEH = Behavioural Uncertainty;

UNIV =Investment Uncertainty;

RDP = Asset specificity in terms of R&D expenditure;

EMC = Asset specificity in terms of Export Marketing Capability; and

Xi = collectively represents control variables in the model (i= 7).

As illustrated in Table 6.2, to predict degree of internalisation, the step-1 model only examined control variables and the step-2 model consists of RO variables as control, in addition to general control variables. Neither of these models were significant (F-statistics = .470, p>0.05; and .923, p>0.05; respectively). However, the F-statistics turned significant for the step-3 model, where the core TCE variables were added to the control variables (F-statistic = 1.909, p <.05). Looking at the final model's R-square, 9.5% of the variability in degree of internalisation can be accounted for by all the predictors together in model 3. This value reflects a significant increase in R-square from 2.2% to 9.5% when main effect TCE-based variables were added to the model. F-change associated with this R-square change is statistically significant, and it shows adding TCE-variables to the model did increase predictive capacity of the model in a statistically significant way.

To ensure that multicollinearity did not pose a problem to the current study results, the VIF index was calculated by the package. All the VIFs were found to be less than

1.2, substantially below the cut-off point of 10 (Hair et al., 2014), suggesting multicollinearity did not pose a problem in this analysis.

In terms of hypothesis testing, as summarised in Table 6.3, only hypotheses H2 and H3b are supported. Contrary to expectations, no significant effect for R&D asset specificity, partner uncertainty, behavioural uncertainty and TCE-MS were found. Thus, hypotheses H1a, H1b, and H3a are not supported. The detailed discussion of hypothesis testing follows.

Table 6.2 Hierarchical regression analysis for Degree of Internalisation

Dependent Variable: Degree of Internalisation						
	Step 1		Step 2		Step 3	
	β	t-Value	β	t-Value	β	t-Value
Intercept		7.046***		4.881***		1.704**
Control Variables						
Firm export scope	-.010	-.156	-.011	-.171	-.012	-.180
Firm size	.044	.683	.045	.687	.037	.580
Firm export experience	-.003	-.044	.002	.026	.010	.156
TCE mindset	.076	1.188	.087	1.351	.076	1.190
Rival theory variables (as Control)						
Investment irreversibility			.015	.235	-.037	-.573
Technological Uncertainty			-.061	-.922	-.112	-1.654**
Cultural Uncertainty			-.114	-1.726**	-.171	-2.545***
Demand Uncertainty			.029	.448	.056	.837
Main effect variables						
Partner Uncertainty					.072	1.082
Behavioural Uncertainty					.091	1.428*
Investment Uncertainty					.239	3.480***
R&D Expenditure					.028	.419
Export Marketing Capability					.121	1.754**
R2	.002		.022		.095	
Adjusted R2	-.010		-.006		.045	
F statistics	.470		.923		1.909**	
Sig. F change	.757		.244		.005	

a = critical t-values are 1.282, 1.645 and 2.325 for α = 0.10, α = 0.05 and α = 0.01 respectively (one-tailed test due to one-directional hypotheses)

N=250; *p<.10; **p<0.05; ***p<0.010

Table 6.3 Summary of hypothesised relationships predicting Degree of Internalisation (DOI), their predicted sign and the results

Hypothesis	hypothesized relationships	Result
H1a (+)	Partner Uncertainty → DOI	Not Supported
H1b (+)	Behavioural Uncertainty → DOI	Not Supported
H2 (+)	Investment Uncertainty → DOI	Supported
H3a (+)	Asset specificity (R&D expenditure) → DOI	Not Supported
H3b (+)	Asset specificity (Export Marketing Capability) → DOI	Supported

Hypotheses 1a and 1b

No support was found for H1a and H1b. No significant relationship was found between partner uncertainty and degree of internalisation (β=.072, t= 1.082, p>0.05). Moreover, the relationship between behavioural uncertainty and degree of internalisation was not significant at 5% level (β=.91, t= 1.428, p<0.1).

The results indicating higher or lower level of internal uncertainty, including both behavioural uncertainty and partner uncertainty, do not necessarily lead to higher degree of internalisation.

As discussed in chapters two and three, TCE generally assumes that when internal uncertainty increases a firm has to develop a control mechanism to minimise opportunistic behaviour (Gatignon & Anderson, 1988; Klein et al., 1990; Williamson, 1985). One type of control is through ownership and internalisation. This ownership advantage gives the firm legitimate authority to direct and internalise operations (Anderson & Gatignon, 1986). Although control is obviously attractive, it bears a high price. Control entails high resource commitment, high decision making responsibility, and high switching cost that reduces the firm's ability to adjust their institutional arrangement. Thus, it is correct to assume that control is also some form of risk, and source of inefficiency for the firm's operations (Anderson & Gatignon, 1986).

Since the findings of the study do not support the relationship between the degree of internal uncertainty and degree of internalised export mode portfolios, one may assume that internal control mechanisms through internalisations do not necessarily diminish the negative effect of partner opportunism. As highlighted by Brouthers and Nakos (2004, p.232), "controlling foreign operations is a special skill that requires time to develop and refine", and is not necessary achieved through internalisations.

The studies that assessed the effect of internal uncertainty on internalisation decisions provided mixed results. For instance, the findings of Shervani et al. (2007) suggest that behavioural uncertainty is positively related to the choice of wholly-owned subsidiary in the foreign markets. However, both Brouthers and Brouthers (2003) and Brouthers et al. (2003) found behavioural uncertainty is unrelated to the mode choice. These mixed results might be due to the different measures used by different studies under the same variable name (i.e. internal uncertainty). For

example, Manolis et al. (1997) found a positive relationship between internal uncertainty and vertical integration, however it is notable that they defined and conceptualised the internal uncertainty as partner's motivation and shirking. Brouthers et al. (2008) also used cost of making and negotiating contracts as a measure for internal uncertainty, and found a positive relationship between internal uncertainty and firms choosing high commitment modes of market entry (see Table 2.2, chapter two).

Hypothesis 2

The results show that investment uncertainty is significantly related to the degree of internalisation (β=.239, t= 3.480, $p<0.01$), thus, hypothesis 2 is supported. This result indicates that the higher the level of investment uncertainty, the higher the degree of internalisation in export mode portfolio of the firm.

Transaction cost implies that in facing uncertain business environments, due to bounded rationality, it is difficult to anticipate all the future contingencies in a contract with a partner. Hence, it is argued that the internalisation of the export operations contributes to the absorption of this uncertainty (Geyskens, Steenkamp, & Kumar, 2006; Klein et al., 1990).

Despite this reasoning, as discussed in chapter two, the empirical evidence on the effect of external uncertainty on internalisation is mixed. This inconsistency is mainly due to the wide variation in defining and measuring this construct (Brouthers & Hennart, 2007; Li & Li, 2010; Zhao et al., 2004). As Klein (1989, p. 256) noted, "It appears that uncertainty is too broad a concept" and that different facets of it lead to different operation structure. In fact, scholars only relied on a single part of the external uncertainty (e.g. legal uncertainty, or political uncertainty, or institutional, etc) and reported contradictory findings.

In this study, however, investment uncertainty is used as an umbrella concept to reflect the external uncertainty an export firm may face in its markets. The proposed relationship between investment uncertainty and degree of internalised export modes in the portfolio of the firm was supported.

Hypotheses 3a and 3b

The positive relationship between asset specificity and degree of internalisation is partially supported by the results. As such, asset specificity in terms of R&D expenditure was not found to be related to the degree of internalised export activities (β=.028, t= .419, p>0.05) (H3a), while export marketing capability results returned a significant positive relationship with degree of internalised exporting (β=.121, t= 1.754, p<0.05) (H3b).

Despite the expectation of getting the same result for different types of asset specificity, this finding does not support that. Although R&D expenditure is often considered as the main aspect of asset specificity, some of the past studies also could not find a support for its effect on degree of internalisation (e.g. Brouthers, 2013; Brouthers, 2002; Kogut & Singh, 1988; Merino & Salas, 2002).

One reason for this finding could be related to the argument by Brouthers and Hennart (2007) that specific asset could be a source of a (transaction) cost for the firm, only when it is coupled with uncertainties. In fact, the interaction of asset specificity and uncertainties increases the threat of opportunism and dissemination risks.

Moreover, based on the argument of Aulakh and Kotabeh (1997), export firms may have other types of specific assets such as brand name or advertising intensity that could create a possibility of free riding and opportunistic behaviour from a potential partner firm. Thus, receiving the non-significant result could be due to not considering the right type of asset specificity for the export context.

Nonetheless, the current study findings show that specific asset in terms of export marketing capability is significantly related to degree of internalisation. As discussed in chapter three, export marketing skills and capabilities developed to sell the products are key specific assets for export firms that enable them to operate successfully in their market (He et al., 2013; Sanchez-Peinado et al., 2007). Since these skills and capabilities are developed over the years and are rooted in a firm's culture, systems and routines, they are a firm's specific assets and especially prone to issues related to information dissemination and the exploitation of information by third parties. Thus, it is argued that internalised export mode could protect and

strengthen these capabilities. This proposition is supported by the results of the current study.

6.3.2.1 TCE model summary

Consistent with most of empirical research, the transaction cost hypotheses in this study were partially supported. As highlighted by David and Han (2004), the main reason for finding mixed results in the literature could be traced back to the operationalization of the TCE's central constructs. This study included established measures of core variables and also created and adopted new variables to evaluate the TCE model. The result was interesting. In terms of specific asset, R&D expenditure as a traditional asset specificity variable was included in the model. In addition, export marketing capability was developed and included in the model as a new aspect of asset specificity. Investment uncertainty was also defined as an umbrella variable representing external environment uncertainties. The results provided support for these newly developed variables in relation to degree of internalisation. In contrast, internal uncertainty was found to have no significant impact on degree of internalisation. A reason for this result could be that "uncertainty-increasing factors" are examined instead of uncertainty itself (Zhao et al., 2004).

As such, applying a new approach of real options towards the export mode issue, the current study aimed to enhance the understanding of different types of uncertainties and their role in structuring export mode portfolio of the firm. In the next section, the results of two RO-based models are illustrated and findings are discussed.

6.3.3 Hypothesis testing RO models

As discussed in chapter 3, this study conducts two RO-based models with two different independent variables. For each dependent variable, a complete regression analysis was run using the SPSS package and ordinary least square method.

To test these hypotheses, the following multiple linear regression was estimated:

$Y1$[23] = β1* UCUL + β2 * UTEC+ β3 * UINV + β4 * UDEM + β5* INVIRR+ βci * Xci + ε1

where:

Y1 = DOJI = Degree of Joint-Investment (RO-model1);

Y1 = DONI = Degree of No-Investment (RO-model2);

UCUL = Cultural Uncertainty;

UTEC = Technological Uncertainty;

UINV = Investment Uncertainty;

UDEM = Demand Uncertainty;

INVIRR = Investment Irreversibility; and

Xci = collectively represents control variables in the model (I = 8).

6.3.3.1 RO model 1: predicting degree of Joint-Investment

As illustrated in Table 6.4, step-1 model including only control variables and step-2 model including control variables and TCE variables as control were used to predict degree of Joint-Investment. Both of these models were not significant (F-statistics = .483, p>0.05; and 1.152, p>0.05; respectively). However, adding the main effect variables related to real options theory resulted in significant F-statistics (F-statistic = 2.005, p < .05). The final model R-square value shows that 9.9% of the variability in degree of Joint-Investment was accounted for by all the predictors together in step-3 model. This value reflects a significant increase in R-square from 3.7% to 9.9% when main effect RO-based variables were added to the model. F-change associated with this R-square change is statistically significant, and it shows that adding main effect variables to the model significantly increased predictive capacity of the model. The summary of the hypothesised relationship is illustrated in Table 6.5. Four out of five hypotheses were supported. Detailed discussion of the hypotheses follows. Subsequently, the summary of findings in relation to RO models is discussed in section 6.3.3.5.

[23] Y1 stands for two different dependent variables defined for these models; the rest of the variables remain the same for the two models

Table 6.4 Hierarchical regression analysis for Degree of Joint-Investment

Dependent Variable: Degree of Joint-Investment						
	Step 1		Step 2		Step 3	
	B	**t-Value**	**β**	**t-Value**	**β**	**t-Value**
Intercept		4.123***		3.784***		3.263***
Control Variables						
Firm export scope	-.065	-.996	-.046	-.700	-.057	-.869
Firm size	.001	.014	.018	.283	.018	.279
Firm export experience	-.002	-.025	.001	.014	-.014	-.222
TCE- mind set	-.056	-.880	-.054	-.840	-.049	-.776
Rival theory variables (as Control)						
Partner Uncertainty			-.075	-1.131	-.037	-.561
Behavioural Uncertainty			-.045	-.705	-.083	-1.296*
R&D Expenditure			.043	.641	.010	.142
Export Marketing Capability			-.149	-2.210**	-.164	-2.373**
Main effect variables						
Cultural Uncertainty					.144	2.151**
Technological Uncertainty					.146	2.153**
Investment Uncertainty					-.140	-2.040**
Demand Uncertainty					-.132	-1.976**
Investment irreversibility					-.040	-.607
R2	.004		.036		.095	
Adjusted R2	-.008		.003		.045	
F statistics	.483		1.152		2.005**	
Sig. F change	.748		.127		.007	

a = critical t-values are 1.282, 1.645 and 2.325 for α = 0.10, α = 0.05 and α = 0.01 respectively (one-tailed test due to one-directional hypotheses)

N=250; *p<.10; **p<0.05; ***p<0.010

Table 6.5 Summary of hypothesised relationships predicting Degree of Joint-Investment (DOJI), their predicted sign and the results

Hypothesis	hypothesized relationships	Result
H4a (+)	Technological Uncertainty → DOJI	Supported
H4b (+)	Cultural Uncertainty → DOJI	Supported
H5a (-)	Investment Uncertainty → DOJI	Supported
H5b (-)	Demand Uncertainty → DOJI	Supported
H6 (+)	Investment Irreversibility → DOJI	Not Supported

Hypotheses 4a and 4b

The results provide support for H4a and H4b. Cultural uncertainty is positively related to degree of Joint-Investment (β=.144, t= 2.151, p<0.05) (H4a), and technological uncertainty is significantly positively related to degree of Joint-Investment (β=.146, t= 2.153, p<0.05) (H4b).

These two types of uncertainties are endogenous in nature and, as expected, the results show that the higher the level of endogenous uncertainty, the higher is degree of Joint-Investment in the export mode portfolio of the firm.

These results suggest that Joint-Investment export modes that are involved with a local third party in the foreign markets (i.e. collaborations and agents) shape the majority of the export mode portfolio, when export markets are endogenously uncertain for the export firms. This result is consistent with the previous empirical studies conducted in the international marketing field (see chapter two and three for a detailed discussion).

Hypotheses 5a and 5b

Based on the results of the analysis, H5a and H5b are supported. Specifically, investment uncertainty (β=-.140, t= -2.040, p<0.05), and demand uncertainty (β=-.132, t= -1.976, p<0.05) are negatively related to the degree of Joint-Investment.

These two types of environmental uncertainty are exogenous uncertainties and the support of these hypotheses is in line with the discussions in chapter two and the proposed relationship in chapter three. This result confirms that firms facing exogenous uncertainty (here, investment and demand uncertainty) choose not to operate their export activities through Joint-Investment and partnership with local firms as their investment does not reduce the exogenous uncertainties.

Hypothesis 6

No support was found for H6. No significant relationship was found between investment irreversibility and degree of Joint-Investment (β=-.040, t= -.607, p>0.05). The results indicated higher or lower level of investment irreversibility does not necessarily lead to higher or lower degree of Joint-Investment in the export mode

portfolio of the firm, while the initial hypothesis proposed a negative relationship between the two.

As mentioned by Gilroy and Lukas (2006, p.450) “irreversibility stresses the fact that the fixed costs of establishing subsidiaries, learning the market, hiring labourer training agents are already sunk, i.e. they cannot be sold on secondary markets”.

Real options theory of investment suggests that when investments are irreversible, holding an option to invest instead of investment is more economically valuable. Nevertheless, there is no empirical study on the direct relationship between irreversibility of investment and mode choice. For instance, Folta (1998) highlighted that the ability to delay an irreversible investment expenditure can be an important source of flexibility and create value for the firm. This statement later continued in the light of uncertainty assumption when they only proposed and examined the moderating effect of irreversibility of investment on the relationship between exogenous uncertainty and choosing the JVs mode. In the same vein, Folta et al. (2006) considered the joint effect of irreversibility and uncertainty on the likelihood of the option to defer. In their research, Jiang et al. (2009) assessed how irreversibility of investment can change the effect of uncertainty on investment options. Folta et al. (2006) and Folta and O’Brien (2004) found that irreversibility of investment amplifies the relationship between uncertainty and the likelihood of expansion decision.

Not finding a significant relationship between investment irreversibility and export mode portfolio of the firm in the current study can be traced back to the above reasoning provided by previous research.

6.3.3.2 RO model 2: predicting degree of No-Investment

As illustrated in Table 6.6, while step-1 model provides a baseline specification consisting of general control variables, step-2 model provide some extra control variables related to the rival TCE model. Both of these models were not significant (F-statistics = 1.293, $p>0.05$; and 1.576, $p>0.05$; respectively). To predict degree of No-Investment, step-3 model was assessed. Adding the main effect variables related to real options theory resulted in significant F-statistics (F-statistic = 2.825, $p < .01$). The final model R-Square value shows that 13.5% of the variability in degree of no

investment was accounted for by all the predictors together in step-3 model. This value reflects a significant increase in R-square from 5% to 13.5% when main effect RO-based variables were added to the model. F-change associated with this R-square change is statistically significant, and it shows that adding main effect variables to the model significantly increased predictive capacity of the model. The summary of the hypothesised relationship is illustrated in Table 6.7. Four out of five hypotheses were supported. The detailed discussion of the hypotheses follows.

Table 6.6 Hierarchical regression analysis for Degree of

Dependent Variable: Degree of Joint-Investment						
	Step 1		Step 2		Step 3	
	β	**t-Value**	**β**	**t-Value**	**β**	**t-Value**
Intercept		6.534***		2.654***		2.176**
Control Variables						
Firm export scope	.100	1.565*	.080	1.226	.098	1.526*
Firm size	-.106	-1.622*	-.126	-1.905**	-.160	-2.476**
Firm export experience	.029	.443	.035	.524	.062	.949
TCE- mind set	.024	.385	.021	.336	.022	.350
Rival theory variables (as Control)						
Partner Uncertainty			.070	1.066	.029	.440
Behavioural Uncertainty			.034	.542	.081	1.300
R&D Expenditure			-.025	-.371	.007	.100
Export Marketing Capability			.164	2.450**	.178	2.634**
Main effect variables						
Investment Uncertainty					.119	1.758**
Demand Uncertainty					.178	2.726***
Cultural Uncertainty					-.182	-2.755***
Technological Uncertainty					-.161	-2.424***
Investment irreversibility					.040	.630
R2	.020		.05		.135	
Adjusted R2	.008		.018		.087	
F statistics	1.293		1.576		2.825	
Sig. F change	.273		.122		.000***	

a = critical t-values are 1.282, 1.645 and 2.325 for α = 0.10, α = 0.05 and α = 0.01 respectively (one-tailed test due to one-directional hypotheses)

N=250; *p<.10; **p<0.05; ***p<0.010

Table 6.7 Summary of hypothesised relationships predicting Degree of No-Investment (DONI), their predicted sign and the results

Hypothesis	hypothesized relationships	Result
H7a (+)	Investment Uncertainty → DONI	Supported
H7b (+)	Demand Uncertainty → DONI	Supported
H8a (-)	Technological Uncertainty → DONI	Supported
H8b (-)	Cultural Uncertainty → DONI	Supported
H9 (+)	Investment Irreversibility → DONI	Not Supported

Hypotheses 7a and 7b

Regarding the relationship between exogenous uncertainty and degree of No-Investment, results provide strong support. As such, the positive relationship between investment uncertainty and degree of No-Investment (β=.119, t= 1.758, p<0.05) (H7a), and the positive relationship between demand uncertainty and degree of No-Investment (β=.178, t= 2.726, p<0.01) (H7b) were significantly supported.

As mentioned in previous chapters, the application of real options in the export context and under the portfolio logic is assessed for the first time in the current study. Nevertheless, this result lends support to what has been reported in the international business literature. In facing exogenous uncertainty, the wait-and-see strategy holds highest value of option to defer. In other words, the core essence of RO indicates that arms-length modes with no investment involvements are the preferred mode of international activity when firms face exogenous uncertainty.

Hypotheses 8a and 8b

The results show that endogenous uncertainty was significantly related to degree of No-Investment and both H9a and H9b were supported. As hypothesised, the greater level of technological uncertainty (β=-.161, t= -2.424, p<0.01) (H8a) and cultural uncertainty (β=-.182, t= -2.755, p<0.01) (H8b) would lead to lower level of No-Investment export activities.

Under endogenous uncertainty, when the reduction of uncertainty depends on the firms' foreign and collaborative investments, the wait-and-see investment strategy is suggested to be replaced by the act-and-see investment strategy (Adner & Levinthal, 2004). As expected, the results show that there is a negative relationship between

the level of endogenous uncertainty and degree of No-Investment modes in the export portfolio of the firm. This finding can be backed up with the results reflected in the positive relationship between endogenous uncertainty and degree of Joint-Investment on export mode portfolio of the firm (see section 6.3.3.1).

Hypotheses 9

No support was found for H9. Similar to the results of H6, interestingly, investment irreversibility does not seem to predict level of No-Investment activities (β=.040, t= .630, p>0.05).

This finding reconfirms the reasoning on considering the moderating effect of investment uncertainty on entry modes and investment decisions (see section 6.3.3.1 – hypothesis 6).

6.3.3.4 Aggregated level of uncertainty: a post hoc RO model

As indicated by Li and Rugman (2007), the choice of market mode essentially depends on both the magnitude of uncertainty and the type of uncertainty. Hence, in addition to examining how different types of uncertainty could directly relate to different export mode portfolios, a post hoc analysis is conducted to examine how relative amount of endogenous uncertainty to exogenous uncertainty (and vice versa) that a firm faces in its business environment affects its mode portfolio.

To test for this relationship, two different regression analyses for two different dependent variables were run. As illustrated in Table 6.8, the main effect variables are the RO variables including investment irreversibility and degree of endogeneity. The endogeneity and exogeneity variables' definition and calculation are as follows.

As explained in previous chapters, exogenous uncertainty refers to a type of uncertainty that is largely unaffected by firm actions, and is predominantly resolved over time. On the other hand, endogenous uncertainty is defined as a type of uncertainty that can be decreased by actions of the firm, and through learning. In this study, two types of exogenous uncertainty were investment uncertainty and demand uncertainty, and two types of endogenous uncertainty were technological uncertainty and cultural uncertainty. To calculate the relative endogenous (exogenous) uncertainty, the ratio of endogenous (exogenous) uncertainty to the summation of

endogenous and exogenous uncertainties a firm faces was calculated, and called degree of endogeneity (exogeneity).

Figure 6.4 External uncertainties a firm might face

Endogenous Uncertainty **A + B**	Exogenous Uncertainty **C + D**
A. Technological Uncertainty	**C.** Investment Uncertainty
B. Cultural Uncertainty	**D.** Demand Uncertainty

Thus:

Degree of Endogeneity = (A+B) / (A+B+C+D)

Degree of Exogeneity = (C+D) / (A+B+C+D)

These two variables are complementary, which means an increase in one reflects in a decrease in the other. Thus, only endogeneity was entered to the regression equation. However, the interpretation could be extended to exogeneity as well, since only the sign would be different.

To test these post hoc relationships, the following multiple linear regression was estimated:

$Y1 = \beta 1^{*}$ ENDOG + $\beta 2$ * INVIRR + $\beta ci Xci + \varepsilon 1$

where:

$Y1$ = Degree of Joint-Investment (DOJI); Degree of No-Investment (DONI)

ENDOG = Degree of Endogeneity;

INVIRR = Investment Irreversibility;

Xci = collectively represents control variables in the model (I = 3).

Each model, presented in Table 6.8 consists of three control variables, and real options variables including investment irreversibility and endogeneity. All variables entered the regression equation in one step.

Model 1 provides information on determinants of the degree of Joint-Investment. The model is highly significant (F-statistics = 3.1, $p<0.01$). As expected, relative increase

in endogeneity leads to more Joint-Investment export modes in the portfolio of the firm (β =.233, t = 3.696, p<0.01).

Model 2 also turned significant (F-statistic = 4.620, p <0.01). The R2 value shows that 8.6% of the variability in degree of No-Investment was accounted for by all the predictors together in this model. The relationship between degree of endogeneity and degree of No-Investment was negative significant (β =-.259, t =-4.170, p<0.01). As explained earlier, this reflects a positive significant relationship between exogeneity and degree of No-Investment.

In addition to real option main effect variables, control variables returned interesting results in model 2. Specifically, two of the control variables, firm scope and size, are significantly related to degree of No-Investment (β =.117, t =1.873, p<0.05 and β = -.142, t = -2.221, p<0.05, respectively). As such, as the number of countries in which firm operates increases, the level of No-Investment export portfolio increases. On the other hand, smaller firms (less number of employees) tend not to invest in their export markets.

As represented in Table 6.8, it was found that none of the control variables contributed to the model predicting Joint-Investment.

Table 6.8 Hierarchical regression analysis for different dependent variables

Dependent Variable: Degree of … **Joint-Investment** **No-Investment**				
	Model 1		Model 2	
	β	**t-Value**	**β**	**t-Value**
Control Variables				
Firm export scope	-.080	-1.262	.117	1.873**
Firm size	.054	.835	-.142	-2.221**
Firm export experience	-.022	-.344	.046	.720
Main effect variables				
Degree of Endogeneity	.233	3.696***	-.259	-4.170***
Investment Irreversibility	-.063	-1.014	.052	.849
R2	.060		.086	
Adjusted R2	.040		.068	
F statistics	3.100***		4.620***	

a = critical t-values are 1.282, 1.645 and 2.325 for α = 0.10, α = 0.05 and α = 0.01 respectively
(one-tailed test due to one-directional hypotheses)

N = 250; *p<.10; **p<0.05; ***p<0.010

6.3.3.5 RO models summary

Two different dependent variables, degree of Joint-Investment and degree of No-Investment in export mode portfolios of the firms, were examined in two different models. The results significantly supported the proposed relationship between uncertainties and dependent variables. As such, endogenous uncertainty was found to have a positive strong relationship with the degree of Joint-Investment modes in the portfolio of the firm. Exogenous uncertainty, on the other hand, illustrated a positive strong relationship with degree of No-Investment modes in the mode portfolio of the firm.

Achieving the expected results from the real option models analysis, two post hoc analyses were conducted. The aim was to examine how the relative amount of endogenous uncertainty to exogenous uncertainty (and vice versa) in the firm's

business environment can affect the structure of its mode portfolio. Accordingly, the relative amount of endogenous uncertainty to exogenous uncertainty was calculated and entered into the models as an independent variable. In order to keep the focus on RO predictions, the TCE variables were excluded from the post hoc analysis. The two dependent variables were kept the same. The results of these models strongly confirmed the achieved results in the two original RO models. As such, the export mode portfolio of the firm is expected to have higher proportion of Joint-Investment (No-Investment) modes when the majority of the uncertainty a firm faces is endogenous (exogenous). This result is supported by the extant international business literature (see Table 2.4, chapter 2).

Nevertheless, investment irreversibility was not found to significantly predict the dependent variables of the two original models, and post hoc models. Referring to the previous studies (e.g. Jiang et al., 2008), this may suggest that investment irreversibility has a moderating relationship with the export mode portfolio. This relationship could be subject to examination in future studies.

The final part of the study analysis is to assess the profit outcomes of different export mode portfolios that are structured according to different theories. The following section demonstrates the analysis and findings on export performance implications.

6.3.4 Hypothesis testing – fit analysis and profit performance

As explained earlier, the second stage of the model testing is to investigate how different export mode portfolios might shape the profit performance of the firm. The operationalization of the procedure for the measurement of coalignment (fit) involves two steps.

First, building on the first-stage regression models results, only the significant theory-related variables for each model were regressed on each dependent variable and all the standardised residuals were saved. Then, using these absolute standardised residuals, called misalignment, the profit performance is predicted. In this regression model, as illustrated in Table 6.9, the control variable is sale performance. This model is highly significant (F-statistics = 12.879; $p<0.01$) and explains substantial 17.4 percent of variation in profit performance.

The summary of the hypothesised relationship is illustrated in Table 6.10. Two out of three hypotheses were supported. The detailed discussion of the hypotheses follows.

Table 6.9 Regression analysis for profit performance

Dependent Variable: Profit Performance		
	B	t-Valuea
Intercept		9.534***
Control Variable		
Sales Performance	.400	6.861***
Misalignments		
TCE misalignment (DOI)	.124	1.730**
RO misalignment (DOJI)	-.191	-2.050**
RO misalignment (DONI)	.033	.414
R2	.174	
Adjusted R2	.160	
F statistics	12.879***	

Table 6.10 Summary of hypothesised relationships predicting profit performance (PROFIT), their predicted sign and the results

Hypothesis	Parameters	Result
H10a (+)	TCE misalignment (DOI) → PROFIT	Supported
H10b (-)	RO misalignment (DOJI) → PROFIT	Supported
H10c (-)	RO misalignment (DONI) → PROFIT	Not Supported

Hypothesis 10a

H10a proposes a positive relationship between TCE misalignment variable and export profit performance. This relationship was found to be significant and positive, thus supported ($\beta = .124$, $t = 1.730$, $p < 0.01$).

The argument is that TCE's instruction of internalisation in the face of uncertainties and asset specificity might not return profit for the firm. These results shows that perhaps the cost of generating performance is more than its return.

Although a company can protect its proprietary know-how, and minimise the transaction costs related to opportunism by internalising its export modes, it also has to bear that committing to the hierarchical structure is also costly. As supported by the data in this study, internal organisational cost could outreach the transaction cost and reduce the efficiency of the export performance (Hennart, 1989). Consequently, it can be suggested that firms that tend to select entry modes that balance the advantages of integration with the additional costs of control could perform better (Brouthers & Nakos, 2004).

It should be borne in mind that the misalignment here is related to the significant variables only, which are EMC, and investment uncertainty in the TCE model. The high cost of establishing and coordinating export marketing capabilities, as well as the risk of losing investment in high investment uncertain environments contribute to the cost of establishing internalised export modes. As such, adopting more flexible mode portfolio strategies might be more efficient in facing investment uncertainty. In terms of EMC, again it is a costly process, and might not be suitable or affordable for all firms, especially SMEs.

Hypothesis 10b

The results in Table 6.9 show an inverse relationship between degree of Joint-Investment (DOJI) misalignment and profit ($\beta = -.191$, $t = -2.05$, $p < 0.01$). It indicates that the estimated regression model for degree of Joint-Investment is robust as it meets the preconditions for the absence of misspecification. This result suggests small residuals, an indication of fit between extent of Joint-Investment and type of uncertainty, are related to relatively high levels of profit performance (and vice versa), which supports Hypothesis 10b. Detailed discussion is provided in section 6.3.4.1.

Hypothesis 10c

Hypothesis 10c is not supported. The results show that degree of No-Investment (DONI) misalignment and profit performance did not yield a significant relationship ($\beta = .033$, $t = .414$, $p > 0.05$). This result implies that increasing degree of No-Investment modes in export mode portfolio of the firm does not guarantee the expected profitability. In the real options terms, the option-values in No-Investment modes are not as high as expected to lead to higher level of profitability for the firm.

Detailed discussion on performance implications of export mode portfolios is presented in the next section.

6.3.4.1 Performance fit model summary

This result concerning H10b and H10c might not be surprising since in previous studies the focus of the RO reasoning has been on Joint-Investment[24] and related cooperative strategies (e.g. Beamish & Banks, 1987; Cuypers & Martin, 2010). In the international business and strategy context, it is argued that compared to the other modes of market entry (i.e. FDI, and exporting), JVs has higher option value, since it provides the firm with both high values of option to growth and option to abandon. Unlike the modes that are not involved in foreign market investment, the cooperative strategies in Joint-Investment modes could act as a vehicle for proprietary and speedy knowledge acquisition, without burdening the price of sole-investments (Bowman & Hurry, 1993; Brouthers et al., 2008; Buckley & Tse, 1996). In fact, these modes can reduce endogenous uncertainties by enabling the firm to obtain new market knowledge (Chi & McGuire, 1996).

In addition, Joint-Investment in foreign markets can provide pre-emption benefits through limiting the distribution channels for competitors, reducing competitors' access to limited resources, and being engaged with potential partner organisations and distributors in foreign markets (Brouthers et al., 2008; Rivoli & Salorio, 1996).
The knowledge-based resources and the pre-emption benefits could provide the firm with a high value growth platform. Additionally, it also could enable the firm to gain better knowledge about a partner firm, in terms of its resources and their ability to cooperate, thus reduce control related transaction cost uncertainties at the same time (Chi & McGuire, 1996).

These results are summed up by Brouthers et al. (2008, p.954) as they mentioned Joint-Investment modes "represent a 'middle ground' approach, allowing firms to stage entry into new markets, minimizing potential losses while maintaining an option for future growth". The profit outcome of Joint-Investment mode portfolio in

[24] Since the real options background studies are rooted in the strategy and international marketing domains, Joint-Investments are mostly referred to as JVs and IJVs entry modes. In this discussion, referring to the available literature, JVs, IJVs, and Joint-investments are used interchangeably.

this study confirms the approach towards Joint-Investment and cooperative strategies.

The TCE model profit outcome rejects the efficiency of high-commitment, internalised export mode portfolios in facing high investment uncertainty and asset specificity.

6.4 Chapter summary

In this chapter, detailed strategies and results of the study analysis were demonstrated. Embedded in two theories of TCE and RO, the proposed hypotheses for each theory-based model were tested. A summary of findings for each model was presented at the end of each section. TCE model hypotheses were partially supported. RO models' hypotheses in predicting different export mode portfolios were mainly supported. With an exception of investment irreversibility, all uncertainties affected the structure of export mode portfolio as suggested by RO models. The post hoc RO models also confirm the findings of the real options propositions. In terms of performance implications, cost inclusive performance (profit performance) was assessed. It was found that the current study could give solid recommendations for structuring Joint-Investment export mode portfolio in the face of endogenous uncertainty, as the profit performance of the firms with this type of mode portfolio was significantly enhanced. The findings of the study provide important theoretical and managerial contributions, which are discussed in the next chapter.

Chapter 7: Discussion and Conclusion

7.1 Introduction

This chapter demonstrates how the findings have fulfilled the objectives of the study. It highlights the study's important contributions to the export marketing and international business literature. Subsequently, the relevance of the study findings to export managers and practitioners is discussed. Limitations of the study and proposed opportunities for future research in the field are explained. This chapter concludes with a wrap-up statement.

7.2 Research summary

Exporting plays a vital role in the survival and growth of many companies. This study acknowledges the heterogeneous, but joined-up and interlinked nature of export operations. Adapting a holistic view on export operation modes for the first time, this study recognises the export mode portfolio of the firm, and investigates its antecedents and performance implications. Establishing itself on the export mode literature, this study merged the broader international business and strategy literature with the existing export literature and developed a model of export mode portfolio. The underpinning theories of the current study are transaction cost economics and real options. First, a TCE-based model was developed to test the generalisability of this theory, with its long tradition, in export mode decisions for the current study. Second, two RO-based models were introduced to investigate export mode operations from a new perspective. Third, the performance outcomes of using different models were examined to find out the model that guarantees a superior performance. The study models were tested using a sample of 250 Chinese export firms.

In general, the findings of the study provided partial support for the TCE-based model. Only external uncertainty (investment uncertainty) and one type of asset specificity (export marketing capability) were found to be significantly related to high degree of internalised export modes in the portfolio of the firm. The result of the real

options models, however, provides strong support for applying real options to predict the export mode portfolio of firms. Comparing the outcomes of two theory-based models, the performance fit model also indicates that firms structuring their export mode portfolios according to predictions of real options over-perform firms structuring their export mode portfolio based on the TCE considerations.

This research has important implications for both researchers and export practitioners; these are therefore discussed in the following sections.

7.3 Theoretical contribution

7.3.1 Contribution to the export mode choice literature

7.3.1.1 Elaboration on export mode portfolio

By highlighting the prerequisite of investigating export mode activities in an aggregated firm level instead of a venture level, this study is the first to look at the export mode portfolio. Even though the concept of export mode choice, export channel selection and export entry mode are relatively established in the marketing and export literature, portfolio logic is absent from empirical research. Thus, from a theoretical standpoint, this study provides new insight into the nature of export mode decisions at the aggregated firm level. This study acknowledges six types of established export modes in the export literature (see chapter two, section 2.3.1). Nevertheless, it emphasises the importance of considering the export mode portfolio (instead of single export mode) as a unit of analysis. The reasoning is that, firstly, in practice export activities might be interlinked. For instance, a firm may employ agents in some export markets, but might export using its own in-house sales representatives in the rest of its operations. In fact, the firm may use the same resources for several of its markets. Secondly, exporters might choose to use several of these modes for the same market and do not limit their activities to a single mode. Therefore, each firm has a unique combination of these modes that accordingly shapes its export mode portfolio.

Two different theoretical approaches were used to distinguish possible different export mode portfolios of a firm (see chapter three, section 3.3 for detailed

information). Based on the tradition of TCE, two types of export mode portfolio were recognised. As such, when the majority of export modes across the firm's export markets are internalised modes (i.e. remote direct sales, salaried representatives, and branch offices/sales subsidiaries), export mode portfolio is considered to be internalised. On the other hand, when the majority of export modes in a firm market portfolio are externalised modes (i.e. foreign importer and distributors, sales agents, and collaborations), the firm is considered to have externalised mode portfolio.

The theory of real options, new to the field, is also used to identify different export mode portfolios. Based on their investment contribution, under the RO lens, export modes are categorised into three specific groups. No-Investment export modes are the export operation modes that firms manage without any investment and presence in foreign markets. In this case, firms either manage their export activities directly from the home country (remote direct exporting) or through foreign importers and distributors located in the host market where these third-parties take ownership and perform all contractual functions. Joint-Investment modes are assigned to ones either involved in a joint venture with another company in the foreign market to handle sales of their product in their market or which use commission agents to accomplish export activities in the foreign market. The last category is Sole-Investment modes, when export firms solely invest in the foreign market by using their company-owned sales and marketing facilities, through the establishment of a foreign subsidiary or using their own sales representative.

A firm's export mode portfolio could consist of a different combination of the above-mentioned categories. Nevertheless, implementing different logics (TCE or RO) and under different conditions, certain mode portfolios are more effective and efficient than others.

Therefore, this study offers novel theoretical contributions in recognition and conceptualisation of export mode portfolio, application of TCE in the portfolio context, and application of RO in the export context, specifically in export mode portfolio models.

7.3.1.2 Antecedents of export mode portfolio

Conceptualising the export mode portfolio, two theories of TCE and RO were utilised to discover the condition in which different portfolios are structured.

TCE model

First, this study applied the well-established TCE theory and its core variable to examine the effect of core independent variables of the TCE on export mode portfolio of the firm (i.e. internalised vs. externalised). For this reason, first, the common antecedents of export mode in the export literature (behavioural uncertainty and asset specificity (in terms of R&D expenditure) were used, nevertheless, their measures were adapted to the portfolio context. Interestingly, the result did not support the proposed positive relationships between these variables and internalised mode portfolios.

In addition, moving from the most common used aspect of asset specificity (i.e. R&D expenditure), this study argues that marketing skills and capabilities developed to sell the products is another key specific asset for export firms. Putting the TCE hat on, these skills and capabilities are developed over many years and are rooted in a firm's culture, systems, and routines, thus, are specific assets prone to information dissemination issues that need to be protected through the internalisation of export operations. The study result supported the proposed relationship, and thus a new aspect of asset specificity was introduced, measured, and examined to predict export mode portfolio.

Moreover, in the export specific literature, studies embedded in the TCE framework investigated the relationship between different types of external environmental uncertainties and export mode decisions. These uncertainties in general represent the extent to which a country's political, legal, and economic environment threatens the stability of a business operation, and are believed to have common outcomes in relation to the export mode decisions. Therefore, this study uses an umbrella term of investment uncertainty to consider the external uncertainties. It is argued that in the condition of high investment uncertainty firms need greater control to protect their firms from opportunism and environmental contingences, hence, prefer more

internalised modes of export in their markets. The results of the study provided strong support for this proposition. Thus, investment uncertainty was successfully introduced, measured, and examined to predict export mode portfolio of the firm.

Thus, this model contributes to the export literature by examining the power of TCE variables in predicting firm level (aggregated) export modes. In addition, it introduces a new aspect to the core variable of the theory, develops the measurement tool for them, and provides promising results that can open a new avenue for further research in the export context, and the broader international business field.

RO model

What makes the application of real options theory appealing in the current study is its core variables: uncertainty (exogenous and endogenous) and investment irreversibility. This theory appreciates the irreversibility of investments, and handles uncertainties in a different approach from TCE. Therefore, by introducing this theory to the current mainstream export mode literature, this study adds knowledge to the export mode decisions under different conditions of uncertainty, and export mode investments.

This approach highly emphasises on toehold mode operations (i.e. Joint-Investment and No-Investment) as opposed to high-commitment ones (i.e. Sole-Investment) in uncertain environments. Hence, it is expected that an RO-based export mode portfolio of the firm will consist of higher degree of No-Investment and Joint-Investment entry modes. While allowing the firm to defer large irreversible investments in uncertain conditions, these two types of mode portfolios offer the firm a path to full ownership if uncertainties are reduced or resolved. Therefore, the RO-based model in this study identifies two different export mode portfolios for the firm.

Core main effect variables in this model are different types of exogenous uncertainty (investment and demand uncertainty) and endogenous uncertainty (cultural and technological uncertainty), as well as investment irreversibility.

Given the lack of a clear-cut definition and measurement instrument for different types of uncertainty in this model, new measures were created to be conceptually fit for the construct of interest, and context of the study. The empirical testing of the

hypotheses showed that both cultural uncertainty and technological uncertainty increase degree of Joint-Investment in the export mode portfolio of the firm. This finding is in line with the current literature on the positive effect of endogenous uncertainty on joint venture and cooperative strategies, in the broader international business context. In addition, as expected, high amount of investment uncertainty and demand uncertainty showed a positive relationship with the increased amount of No-Investment modes in the export portfolio of the firm.

As mentioned in chapter two, real options theory empirical studies are limited. Thus, the proposed model(s) in this study, the conceptualisation of the variables, developed measurements tools, and its promising findings not only contribute to the export mode literature but also provide opportunities for further empirical research in the broader international business context.

7.3.2 Contribution to the export performance literature

By investigating the performance outcomes of the export mode portfolio, this study adds to the very few studies investigating the issue. While the existing research studies have tactical approach towards the performance outcomes of export entry mode (single mode study), this study introduces a holistic strategic view into the nature of the relationship. Specifically, the performance outcomes of export mode are discussed to be a firm-level phenomenon. Recognising how export mode portfolio could affect export success, this study identifies a new export performance antecedent to be export mode portfolio, so that it adds to the export performance literature directly.

The result of the study provides support for the performance outcomes of the different mode portfolios of the export firms. Firstly, as expected, firms that structure their mode portfolios according to the TCE logic faced inefficiencies in terms of the firm profitability. This means that although a firm might be able to protect its proprietary know-how, and minimise the transaction costs related to uncertainty by internalising its export modes (which was supported in the TCE model predicting mode portfolio), it also has to bear in mind that committing to the hierarchical structure is costly as well. Establishing and coordinating export marketing capabilities, as well as risk of losing investment in high investment uncertain

environments, contribute to the cost of establishing internalised export modes, which results in lower profit performance of the firm.

In terms of profit outcomes of the export mode portfolios that are aligned to the RO models, partial support was found. In fact, the result of the study conveys that firms that reduce their endogenous uncertainty through higher degree of Joint-Investment modes in their portfolio can benefit from profit performance. This finding is consistent with the mainstream research into the JV modes in international business literature. The knowledge-based resources a firm gained through partnership learning and the pre-emption benefit of the Joint-Investment in foreign markets provide high value growth opportunities for the firm and contribute to its profitability.

Unlike the modes that are not involved in foreign market investment (No-Investment modes), the Joint-Investment modes could act as a vehicle for proprietary and speedy knowledge acquisition, without burdening the price of Sole-Investments or internalised modes. In fact, they might also be able to reduce control costs related to TCE considerations by obtaining better knowledge about a partner firm.

Therefore, this study makes a noteworthy contribution to the advancement of the export performance literature, as well as the export mode literature.

7.4 Managerial contribution

This study is conducted at the export firm level, thus has strong potential to aid managers in considering factors that can contribute to the enhancement of their export operation outcomes. This study raises high managerial awareness about export mode decisions, their determinants and performance implications.

Export mode portfolio is explicated: by highlighting the fact that export modes of the firms are interrelated and joined-up operations, this study focused on studying overall export modes of the firm rather than the single venture mode. Accordingly, this study establishes a portfolio logic in export mode decisions that provides managers with a strategic approach towards the pattern of mode decisions across the entirety of their export firm. Instead of looking for factors that might lead to choosing a single export mode, and expecting improved performance, this study appreciates the enhanced export ‘firm’ performance as an ultimate aim for the

managers, and therefore introduces the structure of the best mode portfolio under different circumstances. Subsequently, managers can strategically arrange their export mode portfolio to achieve export success.

Efficiency of control mechanism matters: firms that follow TCE logic in structuring their export mode portfolio focus primarily on internalisation as a control mechanism to minimise uncertainty and its related costs. The results of TCE model in this study validates that facing external environmental uncertainty and possessing high asset specificity leads to higher proportion of internalised export modes (i.e. remote direct sales, salaried representatives, and branch offices/sales subsidiaries) in the portfolio of the firm. Nevertheless, the performance fit model suggests that absorption of uncertainty and protecting specific assets through internalised modes decreases the profitability performance of the firm. This finding sends a message to managers that internalisation in order to eliminate uncertainties might not be an efficient consideration in export mode decisions.

It is time to embrace uncertainty: in the contemporary business world, uncertainty is an inevitable part of any strategic decisions. Therefore, it is time to focus on the approaches that offer managing uncertainty (real options) as opposed to prescribing avoiding uncertainty (transaction cost economics). Despite the fact that TCE emphasizes the downside of uncertainty and suggests control mechanisms through internalizations to avoid uncertainty, RO focuses on possible upsides of uncertainty through adjustable investments. Real options reasoning focuses on decision-making under uncertainty and takes into account different type of uncertainties. Through this lens, managers are expected to scan their business environment regularly, and adjust their export mode strategies to the updated environmental conditions in order to retain optimal performance. In fact, RO emphasizes structuring dynamic rather than static export mode portfolios.

Uncertainties through the real options lens are either endogenous or exogenous. Endogenous uncertainties (e.g. cultural uncertainty and technological uncertainty) are learnable through a firm's investment in obtaining new information. As was strongly supported by the results of this study, higher degree of Joint-Investment export modes in the face of endogenous uncertainty is preferred, since it provides the firm with an option to take advantage of upside opportunities if they occur, while

simultaneously minimizing downside risks commonly associated with high commitment modes. Facing exogenous uncertainty, the study findings also support real options reasoning. Exogenous uncertainties (e.g. investment uncertainty and demand uncertainty) are associated with the firm's external environment, they are not learnable, and, more importantly, their reduction is independent of the firm action and only becomes clear over time. The findings of the study support a positive relationship between exogenous uncertainties and high degree of No-Investment export modes in the portfolio of the firm. The aim is to limit upfront investment commitment in the uncertain foreign markets, and postpone it until the environment is certain to the firm; this reasoning is in contrast to the desire justified by TCE to increase control through a higher degree of integration.

Export mode portfolio structure that pays off: the result of this study strongly supports the profit maximization outcomes for firms using Joint-Investment under condition of endogenous uncertainty. This result is consistent with the previous studies in that the focus of RO reasoning has been mainly on the Joint-Investment and related cooperative strategies. It is argued that, compared to the other modes, JVs have higher option value, since they provide the firm with both high values of option to growth and option to abandon. Unlike the modes that are not involved in foreign market investment, the cooperative strategies in Joint-Investment modes could act as a vehicle for proprietary and speedy knowledge acquisition, without burdening the price of Sole-Investments. In addition, Joint-Investment in foreign markets provides pre-emption benefits for the firm through limiting the distribution channels for competitors, reducing competitors' access to limited resources, and being engaged with potential partner organisations and distributors in foreign markets, which contribute to profit pay offs.

China has become an increasingly important part of the global trading system over the past two decades. China is the largest manufacturing economy and the largest exporter in the world. In fact, Chinese manufacturers have progressively transformed from being passive exporters (only outsourcing low cost products for foreign buyers), to being active exporters (reaching customers) and operating in different foreign markets, choosing different export mode portfolios. The findings of this study particularly enables Chinese's export managers to take into account dynamic nature

of uncertainties they face in their export markets, and implement different type of uncertainty in their long-term strategic decision-making. In fact, being aware of the real option decision-making framework influences patterns of managerial cognitions with respect to the mode decisions. It helps managers to create flexible platforms to reverse managerial choices to avoid unfavourable outcomes.

Having an economy heavily reliant on export, Chinese policy makers might use the insights from this study as a tool to provide specialist programmes for Chinese entrepreneurs, and help businesses export and grow into global markets.

The lessons learned in this study might be applicable to exporters located in other transition economies, as well.

7.5 Research limitations

This study has a number of limitations which also offer opportunities for future researchers. The limitations of the current study are related to the research design, number of informants, and sampling issues that are mainly due to the time, access and financial restrictions in the current study.

Research design: The cross-sectional design was chosen to overcome the time and budget restrictions of the current study. However, the validity of this research design is becoming increasingly questioned by scholars. Since the cross-sectional data are often collected from single respondents at one point in time, they are assumed to be prone to common method variance (CMV) bias and suffer from a limitation in causal inferences (CI) (Rindfleisch et al., 2008). Conducting longitudinal research and collecting data from more than one informant are suggested to overcome these concerns. Although this study had no sign of CMV, conducting longitudinal design could provide a variety of opportunities to investigate this study's interests in more detail. Conducting longitudinal research on export mode portfolio, its antecedents and performance implications could provide the researcher with the sequential data, and enable them to examine and map the changes that take place over a specific time span. Specifically, in the real options models in which mode choices considered dynamic decisions, a longitudinal study could investigate how export mode portfolio of the firm changes over time with the resolution of host market

uncertainties, and how these changes can affect the performance of the firm, eventually. A rare example of longitudinal design is the study on the Chinese automobile industry by Sun, Mellahi and Thun (2010). They were able to demonstrate that "the nature of uncertainties embedded in the political environment of emerging markets can change substantially over time, which requires that MNEs adapt their entry-mode strategies" (Ahsan & Musteen 2011, p.384). As highlighted by Sousa et al. (2008, p. 368), the longitudinal designs might also help with the development of "export marketing theory and practice by evaluating the long-term stability of the functional relationships between export performance and its determinants". Therefore, a new methodological avenue to pursue is to use longitudinal studies to explore the relationship between export mode portfolio and export performance in longer-term operations.

Number of informants: due to the mentioned restrictions, this study relied on information from single respondents for both dependent and independent variables. To reduce the possibility of raising CMV issues, however, the study implemented some ex ante questionnaire designs. Post ante analysis the researcher also ascertained that CMV did not pose a threat to the study results (see chapter five, section 5.4.6). Assessing the knowledgeability of the informants (which was verified in chapter five, section 5.3) confirmed that the respondents were the right people to contact in the export firms.

Moreover, given the small number of employees in the export function of our sample firm, finding two knowledgeable informants who have access to the surveyed data was difficult and in some cases impossible. However, in future studies, provided that informants are knowledgeable and available, use of multiple informants could be beneficial. Alternatively, as suggested by Chang et al. (2010), subject to its availability, additional data can be collected afterwards through secondary sources. Having access to both primary and secondary data also enables the researcher to increase confidence in the validity of the study's findings. Thus, future studies might want to use objective financial data from secondary sources and correspond it with the subjective measure of performance used in this study.

Sampling issues: sampling issues are always a concern in academic research (Brouthers et al., 2008), and this study is no exception. Since only manufacturing

export firms from China were examined, the study's findings may not be generalisable to service export firms and firms from different home countries (both developed and developing countries)[25]. Obtaining data from a larger sample size, and conducting a study in multiple countries, could be beneficial to make a sample more representative of the population.

In order to overcome the limitations of the study, this section highlighted some insights to be considered in future work. The next section mainly offers future research directions focusing on construct development and the relationship between them specific to each model of the study.

7.6 Future research directions

The fundamental novelties of this study are introducing the export mode portfolio as a firm level phenomenon, introducing RO theory to the export (mode) literature, and re-examining the classic theory of TCE with new variables and in conjunction with RO to predict export mode portfolio, and the performance outcomes of the suggested models. Hence, this study claims to be a platform study in the field, and thus, has much potential to expand in various directions in future research. For instance, different variables can be added to the current models; the TCE and RO models can also separately be developed and tested in relation to export mode portfolio. In addition, different aspect of performance can be investigated in each model. However, the following suggestions are mainly limited to improving the current research models.

[25] It is notable that beyond this PhD research, to date, data from 3000+ companies in 13 different countries has been collected using the same questionnaire. These data sets will be used to validate the findings of this study. Nevertheless, a UK-based sample used in the pilot study phase of the current study could confirm the soundness of psychometric properties of the measures developed for the study.

TCE model

In relation to the TCE variables, this study tried to use the established measures, as well as developing new ones. The newly developed measures of asset specificity (export marketing capability), and investment uncertainty showed expected results. However, the new measure developed to assess internal uncertainty (partner uncertainty) was not significant in relation to degree of internalised modes in export portfolio of firms. In addition, the TCE variables' measures that borrowed from literature, i.e. asset specificity in terms of R&D expenditure and behavioural uncertainty, did not show significant results in the model testing.

Despite the emphasis of the study on borrowing and developing precise measures, not finding the expected relationship between these variables and export mode portfolio could be due to not having a good measure of it. Export firms may have other types of specific assets such as brand name or advertising intensity that could create a possibility of free riding and opportunistic behaviour from a potential partner firm. Thus, receiving non-significant results could be due to not considering the right type of asset specificity for the export context. Future studies might want to be more cautious in defining and conceptualising the variable and in developing a measure that truly reflects the variable.

Moreover, as discussed in chapter six (section 6.3.2), not finding the expected results for asset specificity could be related to the fact that specific assets are a source of cost for the firm only when they are coupled with uncertainties. An interesting future research study would be to consider the interaction of asset specificity with both internal and external uncertainty in predicting export mode portfolio of the firm.

RO model

The focus of RO theory is on the role of uncertainty in decision-making. This study already initiated refining and including the common uncertainties used in the previous literature and categorised them as exogenous and endogenous uncertainty in the proposed models. However, to capture the complexity of this construct, additional types of uncertainty (e.g. competitive uncertainties, market uncertainty,

exchange uncertainty, institutional uncertainty) should be defined and added to the model to increase its explanatory power.

This study used a dichotomous categorisation to differentiate exogenous and endogenous uncertainty. However, an interesting avenue for future research would be to refine the conceptualization of uncertainty by identifying different types of uncertainty within the exogenous–endogenous continuum, since some sources of uncertainty may be more exogenous or endogenous than others.

For instance, different types of uncertainties can be arranged on an array of the truly exogenous-nearly endogenous spectrum, as follows:

- Truly exogenous uncertainty = investment, economic, institutional, exchange rate
- Nearly exogenous uncertainty = demand, market, competitors, and technological
- Nearly endogenous uncertainty = cultural

Alternatively, they can be orchestrated based on their degree of exogeneity (endogeneity), as follows:

- Exogeneity (high): investment, economic, institutional, exchange rate
- Exogeneity (moderate): demand, market, competitors, and technological
- Exogeneity (low): cultural

These are only examples, however, if a proper sale can be developed, this continuous approach to classification of source and resolution of uncertainty could lead to additional insights into the role of uncertainty in investment decision making and mode choices.

An alternative direction in conceptualising and measuring uncertainty under RO reasoning could be to ask managers to rate the degree of exogeneity and endogeneity of each uncertainty themselves, without having a presumption about the endogenous or exogenous nature of an uncertainty. Since it is the firm's manager who creates real options through investment decisions, their perceptions of the uncertainty and their ability to resolve the uncertainty may be an accurate measurement for this complex construct.

In addition to opportunities for future research to undertake the challenge of the conceptualization and measurement of uncertainty construct, further effort needs to

develop rigorous measures for investment irreversibility. In the current study, investment irreversibility was not found to significantly predict the dependent variables of the two RO models, and the post hoc model. Referring to the previous studies (e.g. Jiang et al., 2008), this may suggest that investment irreversibility has a moderating relationship with the export mode portfolio. Hence, the interaction of investment irreversibility and uncertainty (specifically exogenous uncertainty) could be subject to examination in future studies.

7.7 Conclusion

Firstly, this study contributes to the knowledge of export mode decision-making analysis by introducing real options theory to this research area for the first time, and offers a platform and foundation for future research in the field.

This study also contributes to the context of export mode decisions by taking the first step in introducing portfolio logic, its importance, definition, and performance implications. This study considers uncertainty as an inevitable part of export decision making. Considering different types of uncertainties, this research firstly proved both TCE and RO theories could clearly explain the structure of export mode portfolio of firms. Besides structuring and explaining export modes, RO was proved the only theory to secure firms' profitability, as expected. Thus, applying RO reasoning, this study shows that when facing endogenous uncertainty, firms with higher degree of Joint-Investment modes in their export portfolio will enjoy enhanced performance.

Contributing to export management practice, this study also shows that applying real options theory in export mode portfolio analysis empowers decision makers to implement uncertainty in long-term strategic decisions, and makes those decisions more dynamic and flexible to respond to real business changes. Employing the recommended model offered by this study enhances the export performance of firms, and thus contributes to the export performance literature.

References

Aaby, N. E., & Slater, S. F. (1989). Management influences on export performance: A review of the empirical literature 1978-1988. *International Marketing Review, 6*(4), 7-26.

Acedo, F. J., & Jones, M. V. (2007). Speed of internationalization and entrepreneurial cognition: Insights and a comparison between international new ventures, exporters and domestic firms. *Journal of World Business, 42*(3), 236-252.

Adcock, R. (2001). Measurement validity: A shared standard for qualitative and quantitative research. *American Political Science Association, 95*(03), 529-546.

Adner, R., & Levinthal, D. A. (2004). What is not a real option: Considering boundaries for the application of real options to business strategy. *The Academy of Management Review, 29*(1), 74-85.

Agarwal, S. (1994). Socio-cultural distance and the choice of joint ventures: A contingency perspective. *Journal of International Marketing,2(2)*, 63-80.

Agarwal, S., & Ramaswami, S. N. (1992). Choice of foreign market entry mode: Impact of ownership, location and internalization factors. *Journal of International Business Studies, 23(1)*, 1-27.

Ahsan, M., & Musteen, M. (2011). Multinational enterprises' entry mode strategies and uncertainty: A review and extension. *International Journal of Management Reviews, 13*(4), 376-392.

Albaum, G. S., Duerr, E., & Strandskov, J. (2011). In Duerr E., Strandskov J. (Eds.), *International marketing and export management* (7th ed. / by Gerald Albaum, Edwin Duerr). Harlow: Financial Times Prentice Hall.

Alchian, A. A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review, 62*(5), 777-795.

Allison, P. D. (1999). *Multiple regression: A primer*. London: sage.

Anderson, E., & Weitz, B. A. (1986). Make-or-buy decisions: Vertical integration and marketing productivity. *Sloan Management Review (1986-1998), 27*(3), 3-19.

Anderson, J. C., & Gerbing, D. W. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika, 49*(2), 155-173.

Anderson, J. C., & Gerbing, D. W. (1991). Predicting the performance of measures in a confirmatory factor analysis with a pretest assessment of their substantive validities. *Journal of Applied Psychology, 76*(5), 732-740.

Anderson, E., & Gatignon, H. (1986). Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies, 17*(3), 1-26.

Anderson, E. (1985). The salesperson as outside agent or employee: A transaction cost analysis. *Marketing Science, 4*(3), 234-254.

Anderson, E., & Coughlan, A. T. (1987). International market entry and expansion via independent or integrated channels of distribution. *The Journal of Marketing, 51*(1), 71-82.

Anderson, E., & Schmittlein, D. C. (1984). Integration of the sales force: An empirical examination. *The Rand Journal of Economics, 15*(3), 385-395.

Andreassen, T. W., Lorentzen, B. G., & Olsson, U. H. (2006). The impact of non-normality and estimation methods in SEM on satisfaction research in marketing. *Quality and Quantity, 40*(1), 39-58.

Armour, H. O., & Teece, D. J. (1980). Vertical integration and technological innovation. *Review of Economics and Statistics, 62*, 470-474.

Aulakh, P. S., & Kotabe, M. (1997). Antecedents and performance implications of channel integration in foreign markets. *Journal of International Business Studies, 28*(1), 145-175.

Axinn, C. N., & Matthyssens, P. (2002). Limits of internationalization theories in an unlimited world. *International Marketing Review, 19*(5), 436-449.

Bagozzi, R. P., & Baumgartner, H. (1994). The evaluation of structural equation models and hypothesis testing. In Bagozzi (Ed.), *Principles of marketing research* (386-422). Cambridge, MA: Blackwell Business.

Bagozzi, R. P., & Fornell, C. (1982). Theoretical concepts, measurements, and meaning. *A Second Generation of Multivariate Analysis, 2*(2), 5-23.

Bagozzi, R. P., & Phillips, L. W. (1982). Representing and testing organizational theories: A holistic construal. *Administrative Science Quarterly*, 27(3), 459-489.

Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Science, 40*(1), 8-34.

Baker, W. E., & Sinkula, J. M. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of the Academy of Marketing Science, 27*(4), 411-427.

Balabanis, G. I., & Katsikea, E. S. (2003). Being an entrepreneurial exporter: Does it pay? *International Business Review, 12*(2), 233-252.

Beamish, P. W., & Banks, J. C. (1987). Equity joint ventures and the theory of the multinational enterprise. *Journal of International Business Studies, 18*(2), 1-16.

Bearden, C. E., Hoffman, K. M., & Cannon, T. D. (2001). The neuropsychology and neuroanatomy of bipolar affective disorder: A critical review. *Bipolar Disorders, 3*(3), 106-150.

Beleska-Spasova, E., Glaister, K. W., & Stride, C. (2012). Resource determinants of strategy and performance: The case of British exporters. *Journal of World Business, 47*(4), 635-647.

Bello, D. C., & Lohtia, R. (1995). Export channel design: The use of foreign distributors and agents. *Journal of the Academy of Marketing Science, 23*(2), 83-93.

Belloc, M., & Di Maio, M. (2011). Survey of the Literature on Successful Strategies and Practices for Export Promotion by Developing Countries (International Growth Centre Working Paper No. 11/0248). Retrieved from http://dx.doi.org/10.2139/ssrn.2001000.

Bendermacher, N. (2010). Beyond alpha: Lower bounds for the reliability of tests. *Journal of Modern Applied Statistical Methods, 9*(1),95-102.

Bentler, P. M. (1992). On the fit of models to covariances and methodology to the bulletin. *Psychological Bulletin, 112*(3), 400-404.

Bentler, P. M. (2007). On tests and indices for evaluating structural models. *Personality and Individual Differences, 42*(5), 825-829.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588.

Bilkey, W. J. (1978). An attempted integration of the literature on the export behavior of firms. *Journal of International Business Studies, 9(1)*, 33-46.

Black, J. S., & Mendenhall, M. (1990). Cross-cultural training effectiveness: A review and a theoretical framework for future research. *Academy of Management Review, 15*(1), 113-136.

Blair, J., Czaja, R., & Blair, E. A. (2013). *Designing surveys: A guide to decisions and procedures* (3rd ed.). Los Angeles: SAGE.

Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research, 17*(3), 303-316.

Bollen, K. A. (2007). Interpretational confounding is due to misspecification, not to type of indicator: Comment on howell, breivik, and wilcox (2007). *Psychological Methods*, 12(2), 219-228.

Bollen, K. A. (1989). *Structural equations with latent variables*. New York:

John Wiley & Sons.

Bollen, K., & Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin, 110*(2), 305.

Borsboom, D. (2005). *Measuring the mind: Conceptual issues in contemporary psychometrics*. Cambridge University Press.

Boso, N. (2011). *Export entrepreneurial-oriented behaviour and export performance* (PhD thesis). Loughborough University, United Kingdom. Available from LOUGH DSP.

Boso, N., Cadogan, J. W., & Story, V. M. (2012). Complementary effect of entrepreneurial and market orientations on export new product success under differing levels of competitive intensity and financial capital. *International Business Review, 21*(4), 667-671.

Bowman, E. H., & Hurry, D. (1993). Strategy through the option lens: An integrated view of resource investments and the incremental-choice process. *Academy of Management Review, 18*(4), 760-782.

Bowman, E. H., & Moskowitz, G. T. (2001). Real options analysis and strategic decision making. *Organization Science, 12*(6), 772-777.

Brace, I. (2008). *Questionnaire design how to plan, structure and write survey material for effective market research,* (2nd ed.). London: Kogan Page.

Bradley, F., & Gannon, M. (2000). Does the firm's technology and marketing profile affect foreign market entry? *Journal of International Marketing, 8*(4), 12-36.

Brettel, M., Engelen, A., & Müller, T. (2010). Forward channel integration and performance: An application of transaction cost economics and the misalignment concept. *Journal of Marketing Management, 27*(1-2), 41-59.

Brettel, M., Engelen, A., & Muller, T. (2010). Forward channel integration and performance: An application of transaction cost economics and the misalignment concept. *Journal of Marketing Management, 27*(1/2), 41-59.

Brouthers, K. D., & Brouthers, L. E. (2001). Explaining the national cultural distance paradox . *Journal of International Business Studies, 32*(1), 177-189.

Brouthers, K. D., & Dikova, D. (2010). Acquisitions and real options: The greenfield alternative. *Journal of Management Studies, 47*(6), 1048-1071.

Brouthers, K. D. (2013). Institutional, cultural and transaction cost influences on entry mode choice and performance. *Journal of International Business Studies, 44*(1), 1-13.

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2002). Industrial sector, perceived environmental uncertainty and entry mode strategy. *Journal of Business Research, 55*(6), 495-507.

Brouthers, K. D., & Nakos, G. (2004). SME entry mode choice and performance: A transaction cost perspective. *Entrepreneurship Theory and Practice, 28*(3), 229-247.

Brouthers, L. E., & Xu, K. (2002). Product stereotypes, strategy and performance satisfaction: The case of chinese exporters. *Journal of International Business Studies, 33*(4), 657-677.

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2008). Real options, international entry mode choice and performance. *Journal of Management Studies, 45*(5), 936-960.

Brouthers, K. D. (2002). Institutional, cultural and transaction cost influences on entry mode choice and performance. *Journal of International Business Studies, 33*(2), 203-221.

Brouthers, K. D., & Brouthers, L. E. (2003). Why service and manufacturing entry mode choices differ: The influence of transaction cost factors, risk and trust. *Journal of Management Studies, 40*(5), 1179-1204.

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2003). Transaction cost-enhanced entry mode choices and firm performance. *Strategic Management Journal, 24*(12), 1239-1248.

Brouthers, K. D., Brouthers, L. E., & Werner, S. (2008). Resource- based advantages in an international context. *Journal of Management, 34*(2), 189-217.

Brouthers, K. D., & Dikova, D. (2010). Acquisitions and real options: The greenfield alternative. *Journal of Management Studies, 47*(6), 1048-1071.

Brouthers, K. D., & Hennart, J. (2007). Boundaries of the firm: Insights from international entry mode research. *Journal of Management, 33*(3), 395-425.

Brouthers, L. E., Brouthers, K. D., & Werner, S. (2000). Perceived environmental uncertainty, entry mode choice and satisfaction with EC-MNC performance. *British Journal of Management, 11*(3), 183-195.

Brown, M., & Cudeck, R. (1993). Alternative ways of assessing model fit. In Bollen, & J. S. Long (Eds.), *Testing structural equation models* (136-163). Newbury Park, CA: Sage Publications Inc.

Brown, T. A. (2015). *Confirmatory factor analysis for applied research.* New York, NY: Guilford Press.

Brunton-Smith, I., Sturgis, P., & Leckie, G. (2016). Detecting and understanding interviewer effects on survey data by using a cross-classified mixed effects location–scale model. *Journal of the Royal Statistical Society: Series A (Statistics in Society), 180(2), 551-568.*

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford: Oxford University Press.

Bryman, A., & Bell, E. (2015). *Business research methods* (4th ed.). Oxford: Oxford University Press.

Buckley, A., & Tse, K. (1996). Real operating options and foreign direct investment: A synthetic approach. *European Management Journal, 14*(3), 304-314.

Buckley, P. J., & Casson, M. C. (1998). Analyzing foreign market entry strategies: Extending the internalization approach. *Journal of International Business Studies, 29*(3), 539-561.

Burgel, O., & Murray, G. C. (2000). The international market entry choices of start-up companies in high-technology industries. *Journal of International Marketing, 8*(2), 33-62.

Burgelman, R. A., Maidique, M. A., & Wheelwright, S. C. (1996). *Strategic management of technology and innovation. (Vol. 2).* Chicago, IL: Irwin.

Buskirk, T. D., & Andrus, C. H. (2014). Making mobile browser surveys smarter. *Field Methods, 26*(4), 322-342.

Byrne, B. M. (2013). *Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming*. Psychology Press.

Cadeaux, J., & Ng, A. (2012). Environmental uncertainty and forward integration in marketing: Theory and meta-analysis. *European Journal of Marketing, 46*(1/2), 5-30.

Cadogan, J. W. (1997). *A measure of export market orientation, and an examination of its antecedents and performance consequences.* (Unpublished PhD). University of Wales, Swansea.

Cadogan, J. W., Kuivalainen, O., & Sundqvist, S. (2009). Export market-oriented behavior and export performance: Quadratic and moderating effects under differing degrees of market dynamism and internationalization. *Journal of International Marketing, 17*(4), 71-89.

Cadogan, J. W., Cui, C. C., Morgan, R. E., & Story, V. M. (2006). Factors facilitating and impeding the development of export market-oriented behavior: A study of hong kong manufacturing exporters. *Industrial Marketing Management, 35*(5), 634-647.

Cadogan, J. W., & Lee, N. (2013). Improper use of endogenous formative variables. *Journal of Business Research, 66*(2), 233-241.

Cadogan, J. W., Lee, N., & Chamberlain, L. (2013). Formative variables are unreal variables: Why the formative MIMIC model is invalid. *AMS Review, 3*(1), 38-49.

Cadogan, J. W., Diamantopoulos, A., & Siguaw, J. A. (2002). Export market-oriented activities: Their antecedents and performance consequences. *Journal of International Business Studies, 33*(3), 615- 626.

Campa, J. M., & Guillén, M. F. (1999). The internalization of exports: Firm- and location-specific factors in a middle-income country. *Management Science, 45*(11), 1463-1478.

Canabal, A., & White III, G. O. (2008). Entry mode research: Past and future. *International Business Review, 17*(3), 267-284.

Capel, J. (1992). How to service a foreign market under uncertainty: A real option approach. *European Journal of Political Economy, 8*(3), 455-475.

Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment* Sage publications.

Carneiro, J., Rocha, A. d., & Silva, J. F. d. (2007). A critical analysis of measurement models of export performance. *BAR-Brazilian Administration Review, 4*(2), 1-19.

Carroll, G. R., & Teece, D. J. (1999). *Firms, markets and hierarchies: The transaction cost economics perspective* Oxford University Press.

Castañer, X., Mulotte, L., Garrette, B., & Dussauge, P. (2014). Governance mode vs. governance fit: Performance implications of make-or-ally choices for product innovation in the worldwide aircraft industry, 1942–2000. *Strategic Management Journal, 35*(9), 1386-1397.

Caves, R. E. (1996). *Multinational enterprise and economic analysis*. Cambridge: Cambridge university press.

Caves, R. E., & Bradburd, R. M. (1988). The empirical determinants of vertical integration. *Journal of Economic Behavior and Organization, 9*(3), 265-279.

Cavusgil, S. T., & Kirpalani, V. M. (1993). Introducing products into export markets: Success factors. *Journal of Business Research, 27*(1), 1-15.

Cavusgil, S. T., & Zou, S. (1994). Marketing strategy-performance relationship: An investigation of the empirical link in export market ventures. *The Journal of Marketing, 58*(1), 1-21.

Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies, 41*(2), 178-184.

Chang, Y., Kao, M., Kuo, A., & Chiu, C. (2012). How cultural distance influences entry mode choice: The contingent role of host country's governance quality. *Journal of Business Research, 65*(8), 1160-1170.

Chang, S., & Rosenzweig, P. M. (2001). The choice of entry mode in sequential foreign direct investment. *Strategic Management Journal, 22*(8), 747-776.

Chen, J., Chen, J., Sousa, C. M., Sousa, C. M., He, X., & He, X. (2016). The determinants of export performance: A review of the literature 2006-2014. *International Marketing Review, 33*(5), 626-670.

Chi, T. (2000). Option to acquire or divest a joint venture. *Strategic Management Journal,* 21(6), 665-687.

Chi, T., & McGuire, D. J. (1996). Collaborative ventures and value of learning: Integrating the transaction cost and strategic option perspectives on the choice of market entry modes. *Journal of International Business Studies, 27*(2), 285-307.

Childers, T. L., & Skinner, S. J. (1996). Toward a conceptualization of mail survey response behavior. *Psychology & Marketing, 13*(2), 185-209.

Chung, H. F. (2002). Determination of export channel strategies–The experience of new zealand firms. *Journal of Asia-Pacific Business, 3*(3), 25-52.

Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research,*16 (1), 64-73.

Churchill, G. A., & Iacobucci, D. (2005). *Marketing research: Methodological foundations* (9th ed.). Ohio: Thomson South Western.

Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*(3), 309-319.

Coase, R. H. (1937). The Nature of the Firm, Economica. Reprinted in: In Williamson, OE, Winter, SG (Eds), *Readings in price theory*, (pp.18-33).

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (Eds.). (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, N.J.: L. Erlbaum Associates.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences.* New York: Routledge.

Cook, J. D. (1981). *The experience of work: A compendium and review of 249 measures and their use.* New York: Academic Press.

Cooper, R. G., &Kleinschmidt, E. J. (1985). The impact of export strategy on export sales performance. *Journal of International Business Studies, 16*(1), 37-55.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*(4), 281-302.

Cronbach, L. J., & Shavelson, R. J. (2004). My current thoughts on coefficient alpha and successor procedures. *Educational and Psychological Measurement, 64*(3), 391-418.

Crook, R., Combs, J., Ketchen, D., & Aguinis, H. (2013). Organizing around transaction costs: What have we learned and where do we go from here? *The Academy of Management Perspectives,* 27(1), 63-79.

Cuypers, I., & Martin, X. (2010). What makes and what does not make a real option? A study of international joint ventures. *Journal of International Business Studies, 41(1)*, 47-69.

Czaja, R., & Blair, J. (1995). *Designing surveys : A guide to decisions and procedures*. London: SAGE.

Czaja, R., & Blair, J. (2005). *Designing surveys: A guide to decisions and procedures* (2nd ed.). CA: SAGE.

David, R. J., & Han, S. (2004). A systematic assessment of the empirical support for transaction cost economics. *Strategic Management Journal, 25*(1), 39-58.

De Leeuw, E. D. (2008). Choosing the method of data collection. In De Leeuw, J. J. Hox & Dillman (Eds.), *International handbook of survey methodology* (pp. 113-135). New York: Lawrence Erlbaum Associates.

De Leeuw, E. D., & Hox, J. J. (2008). Self-adminsitrated questionnaires: Mail surveys and other applications. In De Leeuw, J. J. Hox & Dillman (Eds.), *International handbook of survey methodology* (pp. 239-263). New York: Lawrence Erlbaum Associates.

De Leeuw, E. D. (1992). *Data quality in mail, telephone and face to face surveys.* Amsterdam :TT-Publikaties.

De Vaus, D. A. (2001). *Research design in social research*. London: Sage.

De Villa, M. A., Rajwani, T., & Lawton, T. (2015). Market entry modes in a multipolar world: Untangling the moderating effect of the political environment. *International Business Review, 24*(3), 419-429.

Delios, A., & Henisz, W. J. (2003). Policy uncertainty and the sequence of entry by japanese firms, 1980–1998. *Journal of International Business Studies, 34*(3), 227-241.

DeVellis, R. F. (1991). *Scale development : Theory and applications*. Newbury Park, CA: Sage Publications.

DeVellis, R. F. (2012). *Scale development : Theory and applications* (3rd ed.). Thousand Oaks, Calif.: SAGE.

Dewar, R., & Werbel, J. (1979). Universalistic and contingency predictions of employee satisfaction and conflict. *Administrative Science Quarterly, 24*(3), 426-448.

Diamantopoulos, A., Siguaw, J. A., & Siguaw, J. A. (2000). *Introducing LISREL: A guide for the uninitiated.* London: Sage.

Dillman, D. A. (1978). *Mail and telephone surveys: The total design method*. New York: John Wiley & Sons.

Dillman, D. A. (2011). *Mail and internet surveys: The tailored design method- update with new internet, visual, and mixed-mode guide*. New York: John Wiley & Sons.

Dixit, A. K., & Pindyck, R. S. (1994). *Investment under uncertainty.* Princeton: Princeton university press.

Downey, H. K., Don Hellriegel, & Slocum, J. W.,Jr. (1975). Environmental uncertainty: The construct and its application. *Administrative Science Quarterly, 20*(4), 613-629.

Drazin, R., & Van de Ven, A. H. (1985). Alternative forms of fit in contingency theory. *Administrative Science Quarterly, 30*(4), 514-539.

Driouchi, T., & Bennett, D. (2011). Real options in multinational decision-making: Managerial awareness and risk implications. *Journal of World Business, 46*(2), 205-219.

Driouchi, T., & Bennett, D. J. (2012). Real options in management and organizational strategy: A review of Decision-making and performance implications. *International Journal of Management Reviews, 14*(1), 39-62.

Drolet, A. L., & Morris, M. W. (2000). Rapport in conflict resolution: Accounting for how face-to-face contact fosters mutual cooperation in mixed-motive conflicts. *Journal of Experimental Social Psychology, 36*(1), 26-50.

Duffy, B., Smith, K., Terhanian, G., & Bremer, J. (2005). Comparing data from online and face-to- face surveys. *International Journal of Market Research, 47*(6), 615-639.

Dunning, J. H. (1981). Explaining the international direct investment position of countries: Towards a dynamic or developmental approach. *Review of World Economics, 117*(1), 30-64.

Eden, L. (2009). Letter from the editor-in-chief: Real options and international business. *Journal of International Business Studies, 40*(3), 357-360.

Edwards, J. R., & Bagozzi, R. P. (2000). On the nature and direction of relationships between constructs and measures. *Psychological Methods, 5*(2), 155.

Ekeledo, I., & Sivakumar, K. (2004). International market entry mode strategies of manufacturing firms and service firms: A resource-based perspective. *International Marketing Review, 21*(1), 68-101.

Erdogan, B. Z., & Baker, M. J. (2002). Increasing mail survey response rates from an industrial population: A cost-effectiveness analysis of four follow-up techniques. *Industrial Marketing Management, 31*(1), 65-73.

Erdogan, Z., & Kitchen, P. (1998). Getting the best out of celebrity endorsers: Take care picking your celebrity, but don't ignore the bandwagon. *Admap, 33*, 17-20.

Erramilli, M. K., & Rao, C. P. (1993). Service firms' international entry-mode choice: A modified transaction-cost analysis approach. *The Journal of Marketing, 57*(3), 19-38.

Fernández-Olmos, M., & Díez-Vial, I. (2015). Intangible resources, export channel and performance: Is there any fit? *Journal of Business Economics and Management, 16*(5), 1013-1033.

Fernández-Olmos, M., & Díez-Vial, I. (2014). The direct or indirect exporting decision in Agri-food firms. *Agribusiness, 30*(2), 148-164.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Thousand Oaks: Sage publications.

Floyd, F. J., Widaman, K. F., & Butcher, J. N. (. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological Assessment, 7*(3), 286-299.

Folta, T. B. (1998). Governance and uncertainty: The tradeoff between administrative control and commitment. *Strategic Management Journal, 19*(11), 1007-1028.

Folta, T. B., Johnson, D. R., & O'Brien, J. (2006). Uncertainty, irreversibility, and the likelihood of entry: An empirical assessment of the option to defer. *Journal of Economic Behavior & Organization, 61*(3), 432-452.

Folta, T. B., & O'Brien, J. P. (2004). Entry in the presence of dueling options. *Strategic Management Journal, 25*(2), 121-138.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18(3),* 382-388.

Foss, N. J., & Roemer, E. (2010). Real options, resources and transaction costs: Advancing the strategic theory of the firm. *International Journal of Strategic Change Management, 2*(1), 73-92.

Frost, J. (2014). How to interpret a regression model with low R-squared and low P values. *Minitab Inc.(ed) Getting Started with Minitab*, 17.

Fry, L. W., & Slocum, J. W. (1984). Technology, structure, and workgroup effectiveness: A test of a contingency model. *Academy of Management Journal, 27*(2), 221-246.

Gallego, Á., & Casillas, J. C. (2014). Choice of markets for initial export activities: Differences between early and late exporters. *International Business Review, 23*(5), 1021-1033.

Ganesan, S., Malter, A. J., & Rindfleisch, A. (2005). Does distance still matter? geographic proximity and new product development. *Journal of Marketing, 69(4)*, 44-60.

Gatignon, H., & Anderson, E. (1988). The multinational corporation's degree of control over foreign subsidaries: An emperical test of a transaction cost explanation. *Journal of Law, Economics, & Organization, 4*(2), 305-336.

Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research, 25(2)*, 186-192.

Gerbing, D. W., & Anderson, J. C. (1993). Monte carlo evaluations of goodness-of-fit indices for structural equation models. *In K. A. Bollen & J. S. Long (Eds.), Testing structural equation models (pp.40-65. Newbury Park, CA: Sage.*

Gerring, J. (2011). *Social science methodology: A unified framework* Cambridge University Press.

Gershowitz, H. (1995). Improving validation: Process vs. product. *Marketing Research, 7*(1), 48-49.

Geyskens, I., Steenkamp, J. E. M., & Kumar, N. (2006). Make, buy, or ally: a transaction cost theory meta-analysis. *49*(3), 519-543.

Ghauri, P. N., & Grønhaug, K. (2005). *Research methods in business studies: A practical Guide* (3rd ed.) India: Pearson education.

Ghiselli, E. E., Campbell, J. P., & Zedeck, S. (1981). *Measurement theory for the behavioral sciences*. San Francisco: WH Freeman.

Gilroy, B. M., & Lukas, E. (2006). The choice between greenfield investment and cross-border acquisition: A real option approach. *The Quarterly Review of Economics and Finance, 46*(3), 447-465.

Goertz, G. (2006). *Social science concepts: A user's guide.* Princeton: Princeton University Press.

Greer, T. V., Chuchinprakarn, N., & Seshadri, S. (2000). Likelihood of participating in mail survey research: Business respondents' perspectives. *Industrial Marketing Management, 29*(2), 97-109.

Groves, R. M., Floyd J., M. P., Couper, F., Lepkowski, J. M., Singer, E., & Tourangeau, R. (Eds.). (2009). *Survey methodology* (2nd ed.). Hoboken, New Jersey: Wiley.

Guide Jr., V. D. R., & Ketokivi, M. (2015). Notes from the editors: Redefining some methodological criteria for the journal. *Journal of Operations Management, 37*, v-viii.

Haahti, A., Madupu, V., Yavas, U., & Babakus, E. (2005). Cooperative strategy, knowledge intensity and export performance of small and medium sized enterprises. *Journal of World Business, 40*(2), 124-138.

Hair, J. F., Celsi, M. W., Money, A. H., Samouel, P., & Page, M. J. (2011). *Essentials of business research methods* (2nd ed.). NewYork: ME Sharpe.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). In Hair J. F.,author (Ed.), *Multivariate data analysis* (7th edition.; Pearson new international edition). Harlow, Essex: Pearson.

Harrigan, K. R. (1983). *Strategies for vertical integration*. Lexington, MA: D C,

Heath, Lexington Books.

He, X., Brouthers, K. D., & Filatotchev, I. (2013). Resource-based and institutional perspectives on export channel selection and export performance. *Journal of Management, 39*(1), 27-47.

He, X., He, X., Lin, Z., Lin, Z., Wei, Y., & Wei, Y. (2016). International market selection and export performance: A transaction cost analysis. *European Journal of Marketing, 50*(5/6), 916-941.

Helpman, E., & Krugman, P. R. (1985). *Market structure and foreign trade: Increasing returns, imperfect competition, and the international economy*. Cambridge, Mas.s.: MIT press.

Hennart, J. (1989). Can the" new forms of investment" substitute for the" old forms?" a transaction costs perspective. *Journal of International Business Studies,20(2),* 211-234.

Hennart, J. F. (1991). The transaction costs theory of joint ventures: An empirical study of Japanese subsidiaries in the United States. *Management science*, *37*(4), 483-497.

Hessels, J., & Terjesen, S. (2010). Resource dependency and institutional theory perspectives on direct and indirect export choices. *Small Business Economics, 34*(2), 203-220.

Hesterly, W. S., & Zenger, T. R. (1993). Crossroads—The myth of a monolithic economics: Fundamental assumptions and the use of economic models in policy and strategy research. *Organization Science, 4*(3), 496-510.

Hinkin, T. R., Tracey, J. B., & Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. *Journal of Hospitality & Tourism Research, 21*(1), 100-120.

Hofstede, G. (1980). *Cultures's consequences.* Beverley Hills: Sage.

Hofstede, G. H. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage

Holbrook, A. L., Green, M. C., & Krosnick, J. A. (2003). Telephone versus face-to-face interviewing of national probability samples with long questionnaires: Comparisons of respondent satisficing and social desirability response bias. *Public Opinion Quarterly, 67*(1), 79-125.

Howell, R. D., Breivik, E., Wilcox, J. B., & West, S. G. (2007). Reconsidering formative measurement. *Psychological Methods, 12*(2), 205-218.

Hox, J. J., DeLeeuw, E. D., & Dillman, D. A. (2008). The cornerstones of survey research. In J. J. Hox, & Dillman (Eds.), *International handbook of survey methodology* (pp. 1-17). New York: Lawrence Erlbaum Associates.

Hu, L. T., & Bentler, P. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). London: Sage.

Hultman, M., Katsikeas, C. S., & Robson, M. J. (2011). Export promotion strategy and performance: The role of international experience. *Journal of International Marketing, 19*(4), 17-39.

Hultman, M., Robson, M. J., & Katsikeas, C. S. (2009). Export product strategy fit and performance: An empirical investigation. *Journal of International Marketing, 17*(4), 1-23.

Iacobucci, D., & Churchill, G. (2009). *Marketing research: Methodological foundations* (10th ed.) South Western: Cengage Learning.

Ipsmiller, Edith and Brouthers, Keith D. and Dikova, Desislava, (2017). *25 Years of Real Option Empirical Research in Management*. Available at SSRN: https://ssrn.com/abstract=2908876

Ito, K., & Pucik, V. (1993). R&D spending, domestic competition, and export performance of japanese manufacturing firms. *Strategic Management Journal, 14*(1), 61-75.

Jaccard, J., & Wan, C. K. (1996). *LISREL approaches to interaction effects in multiple regression* Sage.

Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research, 30*(2), 199-218.

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *The Journal of Marketing,* 53-70.

Jiang, M. S., Aulakh, P. S., & Pan, Y. (2008). Licensing duration in foreign markets: A real options perspective. *Journal of International Business Studies, 40*(4), 559-577.

John, G., & Weitz, B. A. (1988). Forward integration into distribution: An empirical test of transaction cost analysis. *Journal of Law, Economics, & Organization, 4(2)*, 337-355.

Johnson, G., Scholes, K., & Whittington, R. (2008). *Exploring corporate strategy: Text & cases* (8th Ed.). London: FT Prentice Hall.

Jones, M. V., Coviello, N., & Tang, Y. K. (2011). International entrepreneurship research (1989–2009): A domain ontology and thematic analysis. *Journal of Business Venturing, 26*(6), 632-659.

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language.* lincolnwood, illinois: Scientific Software International.

Jöreskog, K., & Sörbom, D. (2004). LISREL 8.7 for windows (computer software). lincolnwood, illinois: Scientific software international.

Juster, F. T. (1966). Consumer buying intentions and purchase probability: An experiment in survey design. *Journal of the American Statistical Association, 61*(315), 658-696.

Katsikea, E., Theodosiou, M., & Morgan, R. E. (2007). Managerial, organizational, and external drivers of sales effectiveness in export market ventures. *Journal of the Academy of Marketing Science, 35*(2), 270-283.

Katsikeas, C. S., Samiee, S., & Theodosiou, M. (2006). Strategy fit and performance consequences of international marketing standardization. *Strategic Management Journal, 27*(9), 867-890.

Katsikeas, C. S. (1994). Export competitive advantages: The relevance of firm characteristics. *International Marketing Review, 11*(3), 33-53.

Katsikeas, C. S., Leonidou, L. C., & Morgan, N. A. (2000). Firm-level export performance assessment: Review, evaluation, and development. *Journal of the Academy of Marketing Science, 28*(4), 493-511.

Katsikeas, C. S., Piercy, N. F., & Ioannidis, C. (1996). Determinants of export performance in a european context. *European Journal of Marketing, 30*(6), 6.

Khemakhem, R. (2010). Explaining the entry mode choice among tunisian exporting firms development and test of an integrated model. *European Journal of Marketing, 4*(1/2), 223-244.

Kim, B., Kim, H., & Lee, Y. (2002). Modes of foreign market entry by korean SI firms. *Asia Pacific Journal of Marketing and Logistics, 14*(4), 13-35.

Kim, J. (2001). Distribution channel selection of foreign-owned firms in the korean market: Combining the transactions cost approach and the functional approach. *Journal of Marketing Channels, 8*(3-4), 49-64.

Klein, S. (1989). A transaction cost explanation of vertical control in international markets. *Journal of the Academy of Marketing Science, 17*(3), 253-260.

Klein, S., Frazier, G. L., & Roth, V. J. (1990). A transaction cost analysis model of channel integration in international markets. *Journal of Marketing Research, 27*(2), 196-208.

Klein, S., & Roth, V. J. (1990). Determinants of export channel structure: The effects of experience and psychic Distance Reconsidered. *International Marketing Review, 7*(5), 27-38.

Kline, R. (2013). Exploratory and Confirmatory factor analysis. In Y. Petscher & C. Schatsschneider (Eds.), *Applied quantitative analysis in the social sciences* (pp. 171-207). New York: Routledge.

Kline, R. B. (2015). *Principles and practice of structural equation modeling.* New York, NY: Guilford Press.

Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies, 35*(2), 124-141.

Kogut, B., & Kulatilaka, N. (1994). Operating flexibility, global manufacturing, and the option value of a multinational network. *Management Science, 36*(2), 123-139.

Kogut, B., & Kulatilaka, N. (2001). Capabilities as real options. *Organization Science, 12*(6), 744-758.

Kogut, B. (1991). Joint ventures and the option to expand and acquire. *Management Science, 37*(1), 19-33.

Kogut, B., & Singh, H. (1988). The effect of national culture on the choice of entry mode. *Journal of International Business Studies, 19(3)*, 411-432.

Kogut, B. (1991). Joint ventures and the option to expand and acquire. *Management Science, 37*(1), pp. 19-33.

König, F. (2009). *The uncertainty-governance choice puzzle revisited: Predictions from transaction costs economics, resource-based theory, and real options theory.* Springer Science & Business Media.

Krosnick, J. A. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. *Applied Cognitive Psychology, 5*(3), 213-236.

Kuivalainen, O., Sundqvist, S., & Servais, P. (2007). Firms' degree of born-globalness, international entrepreneurial orientation and export performance. *Journal of World Business, 42*(3), 253-267.

LaGarce, R., & Kuhn, L. D. (1995). The effect of visual stimuli on mail survey response rates. *Industrial Marketing Management, 24*(1), 11-18.

Lages, L. F. (2000). A conceptual framework of the determinants of export performance: Reorganizing key variables and shifting contingencies in export marketing. *Journal of Global Marketing, 13*(3), 29-51.

Lau, H. F. (2008). Export channel structure in a newly industrialized economy. *Asia Pacific Journal of Management, 25*(2), 317-333.

Lee, S. H., & Makhija, M. (2009). Flexibility in internationalization: Is it valuable during an economic crisis? *Strategic Management Journal, 30*(5), 537-555.

Leiblein, M. J. (2003). The choice of organizational governance form and performance: Predictions from transaction cost, resource-based, and real options theories. *Journal of Management, 29*(6), 937-961.

Leiblein, M. J., Reuer, J. J., & Dalsace, F. (2002). Do make or buy decisions matter? the influence of organizational governance on technological performance. *Strategic Management Journal, 23*(9), 817-833.

Leonidou, L. C. (1995). Empirical research on export barriers: Review, assessment, and synthesis. *Journal of International Marketing, 3(1)*, 29-43.

Leonidou, L. C., & Katsikeas, C. S. (2010). Integrative assessment of exporting research articles in business journals during the period 1960–2007. *Journal of Business Research, 63*(8), 879-887.

Leonidou, L. C., Katsikeas, C. S., Palihawadana, D., & Spyropoulou, S. (2007). An analytical review of the factors stimulating smaller firms to export: Implications for policy-makers. *International Marketing Review, 24*(6), 735-770.

Leonidou, L. C., & Katsikeas, C. S. (1996). The export development process: An integrative review of empirical models. *Journal of International Business Studies, 27*(3), 517-551.

Levine, S., & Gordon, G. (1958). Maximizing returns on mail questionnaires. *Public Opinion Quarterly,22(4)*, 568-575.

Levy, D. T. (1985). The transactions cost approach to vertical integration: An empirical examination. *Review of Economics and Statistics, 67(3)*, 438-445.

Li, J. (2007). Real options theory and international strategy: A critical review. *Advances in Strategic Management, 24*, 67-101.

Li, J., & Li, Y. (2010). Flexibility versus commitment: MNEs' ownership strategy in china. *Journal of International Business Studies, 41*(9), 1550-1571.

Li, J., & Rugman, A. M. (2007). Real options and the theory of foreign direct investment. *International Business Review, 16*(6), 687-712.

Li, J., & Li, Y. (2010). Flexibility versus commitment: MNEs' ownership strategy in china. *Journal of International Business Studies, 41*(9), 1550-1571.

Li, L., & Ng, P. (2002). Market exchanges, hierarchical exchanges or relational exchanges in export channels into emerging markets. *International Business Review, 11*(6), 707-723.

Li, M., He, X., & Sousa, C. M. (2017). A review of the empirical research on export channel selection between 1979 and 2015. *International Business Review, 26(2),303-323.*

Li, Y. (2008). Duration analysis of venture capital staging: A real options perspective. *Journal of Business Venturing, 23*(5), 497-512.

Lindhjem, H., & Navrud, S. (2011). Are internet surveys an alternative to face-to-face interviews in contingent valuation? *Ecological Economics, 70*(9), 1628-1637.

Little, T. D., Bovaird, J. A., & Widaman, K. F. (2006). On the merits of orthogonalizing powered and product terms: Implications for modeling interactions among latent variables. *Structural Equation Modeling, 13*(4), 497-519.

Loosveldt, G. (2008). Face-to-face interviews. In De Leeuw, J. J. Hox & Dillman (Eds.), *International handbook of survey methodology* (pp. 201-220). New York: Lawrence Erlbaum Associates.

López-Duarte, C., & Vidal-Suárez, M. M. (2010). External uncertainty and entry mode choice: Cultural distance, political risk and language diversity. *International Business Review, 19*(6), 575-588.

Lukas, E. (2007). Dynamic market entry and the value of flexibility in transitional international joint ventures. *Review of Financial Economics, 16*(1), 91-110.

Luo, Y., & Peng, M. W. (1999). Learning to compete in a transition economy: Experience, environment, and performance. *Journal of International Business Studies, 30(2)*, 269-295.

MacCallum, R. (1986). Specification searches in covariance structure modeling. *Psychological Bulletin, 100*(1), 107-120.

MacCallum, R. C. (2003). 2001 presidential address: Working with imperfect models. *Multivariate Behavioral Research, 38*(1), 113-139.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods, 1*(2), 130-149.

MacKenzie, S. B. (2003). The dangers of poor construct conceptualization. *Journal of the Academy of Marketing Science, 31*(3), 323-326.

MacKenzie, S. B., Podsakoff, P. M., & Jarvis, C. B. (2005). The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. *Journal of Applied Psychology, 90*(4), 710-730.

MacKenzie, S. B., Podsakoff, P. M., & Podsakoff, N. P. (2011). Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. *MIS Quarterly, 35*(2), 293-334.

Majd, S., & Pindyck, R. S. (1987). Time to build, option value, and investment decisions. *Journal of Financial Economics, 18*(1), 7-27.

Makino, S., & Neupert, K. E. (2000). National culture, transaction costs, and the choice between joint venture and wholly owned subsidiary. *Journal of International Business Studies, 31*(4), 705-713.

Malhotra, N. K., Birks, D. F., & Wills, P. (2012). In Birks D. F., Wills P. (Eds.), *Marketing research an applied approach* (4th ed.). Harlow: Pearson.

Manolis, C., Nygaard, A., & Stillerud, B. (1997). Uncertainty and vertical control: An international investigation. *International Business Review, 6*(5), 501-518.

Marsh, H. W., Balla, J. R., & McDonald, R. P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin, 103*(3), 391-410.

Marsh, H. W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First-and higher order factor models and their invariance across groups. *Psychological Bulletin, 97*(3), 562-582.

McDonald, R., & Siegel, D. (1986). The value of waiting to invest. *The Quarterly Journal of Economics, 101*(4), 707-727.

McGrath, R. G., & Nerkar, A. (2004). Real options reasoning and a new look at the R&D investment strategies of pharmaceutical firms. *Strategic Management Journal, 25*(1), 1-21.

McGrath, R. G. (1999). Falling forward: Real options reasoning and entrepreneurial failure. *Academy of Management Review, 24*(1), 13-30.

McGrath, R. G., Ferrier, W. J., & Mendelow, A. L. (2004). Real options as engines of choice and heterogeneity. *Academy of Management Review, 29*(1), 86-101.

McNaughton, R. B. (1996). Foreign market channel integration decisions of canadian computer software firms. *International Business Review, 5*(1), 23-52.

McNaughton, R. B., & Bell, J. (2001). Channel switching between domestic and foreign markets. *Journal of International Marketing, 9*(1), 24-39.

Meng, L. (2010). Determinants of exporting channel integration: An interaction approach. *Management, 5*(1), 19-38.

Merino, F., & Salas, V. (2002). Causes and consequences of exports' channel integration. *Spanish Economic Review, 4*(4), 239-259.

Miles, J., & Shevlin, M. (2001). In Shevlin M. (Ed.), *Applying regression and correlation : A guide for students and researchers*. London: Sage Pubublications.

Miller, K. D., & Folta, T. B. (2002). Option value and entry timing. *Strategic Management Journal, 23*(7), 655-665.

Mintzberg, H. (1978). Patterns in strategy formation. *Management Science, 24*(9), 934-948.

Morgan, N. A., Kaleka, A., & Katsikeas, C. S. (2004). Antecedents of export venture performance: A theoretical model and empirical assessment. *Journal of Marketing, 68*(1), 90-108.

Morgan, N. A., Katsikeas, C. S., & Vorhies, D. W. (2012). Export marketing strategy implementation, export marketing capabilities, and export venture performance. *Journal of the Academy of Marketing Science, 40*(2), 271-289.

Morgan, N. A., Zou, S., Vorhies, D. W., & Katsikeas, C. S. (2003). Experiential and informational knowledge, architectural marketing capabilities, and the adaptive performance of export ventures: A cross- national study. *Decision Sciences, 34*(2), 287-321.

Morschett, D., Schramm-Klein, H., & Swoboda, B. (2010). Decades of research on market entry modes: What do we really know about external antecedents of entry mode choice? *Journal of International Management, 16*(1), 60-77.

Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological Bulletin, 105*(3), 430-445.

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics, 5*(2), 147-175.

Navarro-García, A. (2016). Drivers of export entrepreneurship. *International Business Review, 25*(1), 244-254.

Nerlove, M., & Wallis, K. F. (1966). Use of the durbin-watson statistic in inappropriate situations. *Econometrica: Journal of the Econometric Society,34(1)*, 235-238.

Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling procedures: Issues and applications*. London: Sage Publications.

Newman, J. C., Des Jarlais, D. C., Turner, C. F., Gribble, J., Cooley, P., & Paone, D. (2002). The differential effects of face-to-face and computer interview modes. *American Journal of Public Health, 92*(2), 294-297.

Nunnally, J. C. (1978). *Psychometric theory.* New York: McGraw-Hill.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York ; London: McGraw-Hill.

O'Cass, A., Ngo, L. V., & Heirati, N. (2012). Examining market entry mode strategies via resource-based and institutional influences: Empirical evidence from a region-

within-country economy context. *Australasian Marketing Journal (AMJ), 20*(3), 224-233.

Oliveira, J. S., Cadogan, J. W., & Souchon, A. (2012). Level of analysis in export performance research. *International Marketing Review, 29*(1), 114-127.

Oppenheim, A. N. (1992). *Questionnaire design, Interviewing and Attitude Measurement.* London: Pinter.

Oriani, R., & Sobrero, M. (2008). Uncertainty and the market valuation of R&D within a real options logic. *Strategic Management Journal, 29*(4), 343-361.

Osborne, J., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research & Evaluation, 8*(2), 1-9.

Ostroff, C., Kinicki, A. J., & Clark, M. A. (2002). Substantive and operational issues of response bias across levels of analysis: An example of climate- satisfaction relationships. *Journal of Applied Psychology, 87*(2), 355-368.

Pauwels, P., & Matthyssens, P. (1999). A strategy process perspective on export withdrawal. *Journal of International Marketing,7(3)*, 10-37.

Pedersen, T., Petersen, B., & Benito, G. R. (2002). Change of foreign operation method: Impetus and switching costs. *International Business Review, 11*(3), 325-345.

Peng, M. W., Zhou, Y., & York, A. S. (2006). Behind make or buy decisions in export strategy: A replication and extension of trabold. *Journal of World Business, 41*(3), 289-300.

Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology, 98*(1), 194.

Petrescu, M. (2013). Marketing research using single-item indicators in structural equation models. *Journal of Marketing Analytics, 1*(2), 99-117.

Pindyck, R. S. (1991). Irreversibility, uncertainty, and investment. *Journal of Economic Literature, 29*(3), 1110-1148.

Pindyck, R. S. (1993). Investments of uncertain cost. *Journal of Financial Economics, 34*(1), 53-76.

Ping, R. A. (2004). On assuring valid measures for theoretical models using survey data. *Journal of Business Research, 57*(2), 125-141.

Ping, R. A. (1995). A parsimonious estimating technique for interaction and quadratic latent variables. *Journal of Marketing Research, 32*(3), 336-347.

Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management, 36*(1), 94-120.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(4), 531-544.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2016). Recommendations for creating better concept definitions in the organizational, behavioral, and social sciences. *Organizational Research Methods,* 19(2), 159-203.

Powell, T. C. (1992). Organizational alignment as competitive advantage. *Strategic Management Journal, 13*(2), 119-134.

Ramaseshan, B., & Patton, M. A. (1994). Factors influencing international channel choice of small business exporters. *International Marketing Review, 11*(4), 19-34.

Rangan, V. K., Corey, E. R., & Cespedes, F. (1993). Transaction cost theory: Inferences from clinical field research on downstream vertical integration. *Organization Science,* 4(3), 454-477.

Reed, R., & Storrud-Barnes, S. F. (2010). Uncertainty, risk, and real options: Who wins, who loses? *Management Decision, 48*(7), 1080-1089.

Rese, M., & Roemer, E. (2004). Managing commitments and flexibility by real options. *Industrial Marketing Management, 33*(6), 501-512.

Reuer, J. J., & Leiblein, M. J. (2000). Downside risk implications of multinationality and international joint ventures. *Academy of Management Journal, 43*(2), 203-214.

Reuer, J. J., & Tong, T. W. (2005). Real options in international joint ventures. *Journal of Management, 31*(3), 403-423.

Revilla, M. A., Saris, W. E., & Krosnick, J. A. (2013). Choosing the number of categories in agree–disagree scales. *Sociological Methods & Research,* 43(1), 73-97.

Reynolds, N., & Diamantopoulos, A. (1998). The effect of pretest method on error detection rates: Experimental evidence. *European Journal of Marketing, 32*(5/6), 480-498.

Rialp, A. (2000). On the determinants of export internalization: An empirical comparison between catalan and spanish (non-catalan) exporting firms. *Globalization, the multinational firm, and emerging economies* (pp. 217-246) Emerald Group Publishing Limited.

Rialp, A., Axinn, C., & Thach, S. (2002). Exploring channel internalization among spanish exporters. *International Marketing Review, 19*(2), 133-155.

Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2008). Cross-sectional versus longitudinal survey research: Concepts, findings, and guidelines. *Journal of Marketing Research, 45*(3), 261-279.

Rivoli, P., & Salorio, E. (1996). Foreign direct investment and investment under uncertainty. *Journal of International Business Studies, 27*(2), 335-357.

Roberts, K., & Weitzman, M. L. (1981). Funding criteria for research, development, and exploration projects. *Econometrica: Journal of the Econometric Society, 49*(5), 1261-1288.

Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). Criteria for scale selection and evaluation. In J. P. Robinson, P. R. Shaver & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 1-16). San Diego: Academic Press.

Robinson, R. D. (1978). International business. *Hinsdale, Illinois: Dryden,*

Root, F. R. (1964). Strategic planning for export marketing. *Thunderbird International Business Review, 6*(4), 17-17.

Sanchez, R. (1995). Strategic flexibility in product competition. *Strategic Management Journal, 16*(S1), 135-159.

Sanchez-Peinado, E., Pla-Barber, J., & Hébert, L. (2007). Strategic variables that influence entry mode choice in service firms. *Journal of International Marketing, 15(1)*, 67-91.

Scherpereel, C. M. (2008). The option-creating institution: A real options perspective on economic organization. *Strategic Management Journal, 29*(5), 455-470.

Schilke, O., Reimann, M., & Thomas, J. S. (2009). When does international marketing standardization matter to firm performance? *Journal of International Marketing, 17*(4), 24-46.

Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling*. London: Routledge.

Sharma, V. M., & Erramilli, M. K. (2004). Resource-based explanation of entry mode choice. *Journal of Marketing Theory and Practice, 12*(1), 1-18.

Shaver, J. M. (1998). Accounting for endogeneity when assessing strategy performance: Does entry mode choice affect FDI survival? *Management Science, 44*(4), 571-585.

Shervani, T. A., Frazier, G., & Challagalla, G. (2007). The moderating influence of firm market power on the transaction cost economics model: An empirical test in a forward channel integration context. *Strategic Management Journal, 28*(6), 635-652.

Shoham, A. (1998). Export performance: A conceptualization and empirical assessment. *Journal of International Marketing,* 6(3), 59-81.

Simon, H. (1982). Models of bounded rationality and other topics in economics, Vol 2. Cambridge, Mas.s.: MIT press.

Smarzynska, B. A. (2004). The composition of foreign direct investment and protection of intellectual property rights: Evidence from transition economies . *European Economic Review, 48*(1), 39-62.

Smit, H. T., & Trigeorgis, L. (2007). Strategic options and games in analysing dynamic technology investments. *Long Range Planning, 40*(1), 84-114.

Song, M., & Montoya-Weiss, M. M. (2001). The effect of perceived technological uncertainty on japanese new product development. *Academy of Management Journal, 44*(1), 61-80.

Sousa, C. M. P., Martínez-López, F. J., & Coelho, F. (2008). The determinants of export performance: A review of the research in the literature between 1998 and 2005. *International Journal of Management Reviews, 10*(4), 343-374.

Sousa, C. M. (2004). Export performance measurement: An evaluation of the empirical research in the literature. *Academy of Marketing Science Review, 2004*, 1.

Soyer, E., & Hogarth, R. M. (2012). The illusion of predictability: How regression statistics mislead experts. *International Journal of Forecasting, 28*(3), 695-711.

Spector, P. E. (1992). *Summated rating scale construction : An introduction*. Newbury Park ; London: Sage Publications.

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research, 25*(2), 173-180.

Stern, M. J., Bilgen, I., & Dillman, D. A. (2014). The state of survey methodology. *Field Methods, 26*(3), 284-301.

Sudman, S., & Bradburn, N. M. (1982). *Asking questions: A practical guide to questionnaire design.* San Francisco, Calif.: Jossey-Bass Publisher.

Sun, P.,Mellahi, K. and Thun, E. (2010). The dynamic value of MNE political embeddedness: the case of Chinese automobile industry. *Journal of International Business Studies*, 41, pp. 1161–1182.

Szolnoki, G., & Hoffmann, D. (2013). Online, face-to-face and telephone surveys—Comparing different sampling methods in wine consumer research. *Wine Economics and Policy, 2*(2), 57-66.

Tabachnick, B., & Fidell, L. (2007). *Using multivariate statistics* (6th ed.). Boston, Massachusetts: Pearson Allyn & Bacon.

Taylor, C. R., Zou, S., & Osland, G. E. (1998). A transaction cost perspective on foreign market entry strategies of US and japanese firms. *Thunderbird International Business Review, 40*(4), 389-412.

Taylor, H., Krane, D., & Thomas, R. K. (2005). *'Best foot forward: Social desirability in telephone vs. online surveys.* Public Opinion Pros.

Teti, D. M. (2008). *Handbook of research methods in developmental science*. Oxford: Blackwell publishing.

Theodosiou, M., & Leonidou, L. C. (2003). Standardization versus adaptation of international marketing strategy: An integrative assessment of the empirical research. *International Business Review, 12*(2), 141-171.

Tong, T. W., Reuer, J. J., & Peng, M. W. (2008). International joint ventures and the value of growth options. *Academy of Management Journal, 51*(5), 1014-1029.

Tong, T. W., & Reuer, J. J. (2007). Real options in multinational corporations: Organizational challenges and risk implications. *Journal of International Business Studies, 38*(2), pp. 215-230.

Tourangeau, R., Rips, L. J., & Rasinski, K. (2000). *The psychology of survey response*. Cambridge: Cambridge University Press.

Trabold, H. (2002). Export intermediation: An empirical test of peng and ilinitch. *Journal of International Business Studies, 33*(2), 327-344.

Trigeorgis, L. (2002). Real options and investment under uncertainty: What do we know. *The National Bank of Belgium Working Paper no, 22*, 1-29.

Trigeorgis, L. (1991). Anticipated competitive entry and early preemptive investment in deferrable projects. *Journal of Economics and Business, 43*(2), 143-156.

Trigeorgis, L., & Reuer, J. J. (2017). Real options theory in strategic management. *Strategic Management Journal, 38*(1), 42-63.

Van de Ven, A. H., & Drazin, R. (1985). The concept of fit in contingency theory. In B. M. Staw, & L. L. Cummings (Eds.), *Research in organizational behavior* (7th ed., pp. 333-365). Greenwich. CT: JAI Press.

Venkatraman, N. (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review, 14*(3), 423-444.

Venkatraman, N. (1990). Performance implications of strategic coalignment: A methodological perspective. *Journal of Management Studies, 27*(1), 19-41.

Venkatraman, N., & Prescott, J. E. (1990). Environment-strategy coalignment: An empirical test of its performance implications. *Strategic Management Journal, 11*(1), 1-23.

Vernon, R. (1966). International investment and international trade in the product cycle. *The Quarterly Journal of Economics, 80*(2), pp. 190-207.

Voorhees, C. M., Brady, M., Calantone, R., & Ramirez, E. (2016). Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies. *Journal of the Academy of Marketing Science; J.Acad.Mark.Sci., 44*(1), 119-134.

Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *American Journal of Sociology,87(3)*, 548-577.

Williamson, O. E. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly,36(2)*, 269-296.

Williamson, O. E. (1975). *Markets and hierarchies.* New York: Free Press.

Williamson, O. E. (1999). Strategy research: Governance and competence perspectives. *Strategic Management Journal,* , 1087-1108.

Williamson, O. E. (1985). *The economic institutions of capitalism : Firms, markets, relational contracting*. New York: Free Press.

Wilson, J. (2014). *Essentials of business research: A guide to doing your research project*. London: Sage.

Woodcock, C. P., Beamish, P. W., & Makino, S. (1994). Ownership-based entry mode strategies and international performance. *Journal of International Business Studies, 25(2)*, 253-273.

Wooster, R. B., Blanco, L., & Sawyer, W. C. (2016). Equity commitment under uncertainty: A hierarchical model of real option entry mode choices. *International Business Review, 25*(1), 382-394.

World Bank. (2016). Retrieved from http://data.worldbank.org/indicator/NE.EXP.GNFS.ZS. Retrieved 18 January 2017.

Wu, F., Sinkovics, R. R., Cavusgil, S. T., & Roath, A. S. (2007). Overcoming export manufacturers' dilemma in international expansion. *Journal of International Business Studies, 38*(2), 283-302.

Xu, S., Cavusgil, S. T., & White, J. C. (2006). The impact of strategic fit among strategy, structure, and processes on multinational corporation performance: A multimethod assessment. *Journal of International Marketing, 14*(2), 1-31.

Zajac, E. J., Kraatz, M. S., & Bresser, R. K. (2000). Modeling the dynamics of strategic fit: A normative approach to strategic change. *Strategic Management Journal, 21*(4), 429-453.

Zeriti, A., Robson, M. J., Spyropoulou, S., & Leonidou, C. N. (2014). Sustainable export marketing strategy fit and performance. *Journal of International Marketing, 22*(4), 44-66.

Zhao, H., Luo, Y., & Suh, T. (2004). Transaction cost determinants and ownership-based entry mode choice: A meta-analytical review. *Journal of International Business Studies, 35*(6), 524-544.

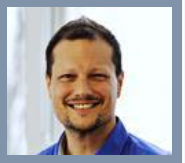
Zhao, H., & Zou, S. (2002). The impact of industry concentration and firm location on export propensity and intensity: An empirical analysis of chinese manufacturing firms. *Journal of International Marketing, 10*(1), 52-71.

Zou, S., Taylor, C. R., & Osland, G. E. (1998). The EXPERF scale: A cross-national generalized export performance measure. *Journal of International Marketing*, 6(3), 37-58.

Appendices

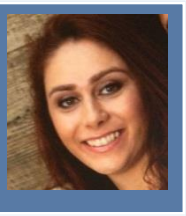
Appendix 4.1 Pilot study questionnaire

RESEARCH TEAM



Professor John W. Cadogan
Professor of Marketing
Loughborough University

Loughborough University



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EXPORT MARKET ENTRY DECISIONS

The purpose of this study is to collect information on firms' export market entry decisions in order to identify common practices and outcomes.

You may respond in complete frankness; all your answers will remain absolutely confidential.

Please use the pre-paid, pre-addressed envelope provided to return the completed survey to us at Loughborough University.

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SECTION I: YOUR EXPORT VENTURES

Definition: **An Export Venture is "A single product /service category sold in a single foreign market".** *For example:*

- Selling a product or service in Spain is one export venture.
- Selling the same product or service in Italy is a second export venture.
- Selling a different product or service in Spain is a third export venture.

➢ **Approximately how many export ventures does your firm have? (Please write the number in the box)** ____

1. Across your export ventures, you might share marketing responsibilities (i.e. sales, pricing, distribution, advertising, commercialising, retailing, market growth, marketing strategy, etc.) with other entities, like agents, distributors, partners and various collaborations.

▷ **Please answer the following questions (enter a number between 0 and 10 for each question).**

Currently…

What percentage of marketing do you control in your export operations?..... ____

What percentage of marketing are you actively doing yourself in your export markets?..... ____

What percentage of marketing activities across all your ventures does your firm take responsibility for?... ____

2. Consider ALL your export ventures. Over the last three years, what numbers best represents your levels of agreement with the following? (Enter a number in each box)

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very Strongly Agree*
1	2	3	4	5	6	7

On the whole, our firm's competitive environment has been predictable…… ____

We have been able to predict many of the key changes taking place in our competitive environment…… ____

Competition in our industry has been highly stable…….. ____

It has been easy to forecast competitive activity in our industry…… ____

It has been difficult to predict the future direction of technological changes in this industry…….. ____

In the industry that we are doing business in, the trajectory of technology advances has been unpredictable.. ____

The shape of future technology in this industry has been uncertain..…… ____

The composition of our customer base has been evolving in predictable ways…..…… ____

Predicting how the composition of our customer profile will evolve in the future has been straightforward…… ____

We have found it easy to forecast changes to our customer profile…….…… ____

3. Across all your export ventures… (Circle a number in each row)

Customers' needs and wants ….	*Vary from venture to venture*	1	2	3	4	5	*Are the same from venture to venture*
Cultures (e.g. customs, practices) are….	*Practically identical*	1	2	3	4	5	*Dramatically different*
The nature of competition ……..	*Varies from venture to venture*	1	2	3	4	5	*Does not vary from venture to venture*

4. Please circle the numbers that best reflect your experiences across all of your export ventures over the past three years.

	Not at all				Extremely
It has been hard to predict customers' changing needs and wants	1	2	3	4	5
Evolving customer requirements have been hard to predict	1	2	3	4	5
It has been hard to predict where customer demands and requirements will emerge next	1	2	3	4	5

5. Consider ALL your export ventures. To what extent have you experienced the following over the last three years? (Enter numbers in the boxes provided)

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an Extreme Extent*
1	2	3	4	5	6	7

Cultural factors (e.g. customs, practices, and norms) have been hard to predict in our export ventures……

We have experienced uncertainty about the cultures in our export ventures……

We have been uncertain when it comes to understanding the cultures of our export ventures……

Sales volumes in our export ventures have been easy to predict……

There has been little uncertainty in our estimates of our future sales volumes in our export ventures……

We have been certain when it has come to forecasting our sales figures in our export operations……

We have felt uncertain when making decisions about whether to invest in our export ventures……..

Predicting what would happen to investments in our export ventures was difficult……

We felt that investing in resources in the countries of our export ventures could be quite risky……

6. Consider your firm's entire export operation. For each of the following statements, please tick a box.

All things considered, we did well to achieve last year's export profit level	*Very Strongly Disagree* ☐	*Disagree* ☐	*Neither Agree or Disagree* ☐	*Agree* ☐	*Very Strongly Agree* ☐
Overall, our profit margin last year was…	*Extremely Poor* ☐	*Poor* ☐	*Neutral* ☐	*Good* ☐	*Exceptional* ☐
How satisfied are you with your export profit for last year?	*Strongly Dissatisfied* ☐	*Dissatisfied* ☐	*Neutral* ☐	*Satisfied* ☐	*Strongly Satisfied* ☐
In terms of our export profit objectives, last year's performance was…	*Far Below Expectations* ☐	*Below Expectations* ☐	*In line with Expectations* ☐	*Above Expectations* ☐	*Far Above Expectations* ☐

7. The "Rules of the Game", in terms of how you do business, manage people, interact with governments, deal with regulations, and so on… (Circle one of the following)

Are identical across our export ventures		*Share commonalities*		*Are completely different in each of our export ventures*
1	2	3	4	5

8. Consider only your firm's NEW Products and Services (P & S). Please tick a box on each line to indicate how satisfied you are with your firm's performance in its export operations.

	Strongly Satisfied	*Satisfied*	*Neutral*	*Dissatisfied*	*Strongly Dissatisfied*
Export revenues from new P & S……	☐	☐	☐	☐	☐
Growth in export revenues from new P & S……	☐	☐	☐	☐	☐
Export market share for new P & S…….	☐	☐	☐	☐	☐
Export sales volumes of new P & S…….	☐	☐	☐	☐	☐
Growth in export sales volumes of new P & S…	☐	☐	☐	☐	☐

9. Consider all the NEW EXPORT VENTURES your firm has entered into over the last 3 years, even those you may no longer be operating in. How satisfied are you with... (Please tick one box per line.)

	Well Below Expectations	*Below Expectations*	*Met Expectations*	*Exceeded Expectations*	*Far Exceeded Expectations*
Current sale volume in New Ventures……	☐	☐	☐	☐	☐
Current sales turnover in New Ventures……	☐	☐	☐	☐	☐
Current cash flow in New Ventures……	☐	☐	☐	☐	☐
Profit margin from all New Ventures……..	☐	☐	☐	☐	☐
Return on sale from all New Ventures……	☐	☐	☐	☐	☐
Gross profit from all New Ventures……..	☐	☐	☐	☐	☐
Sales revenue Growth in New Ventures……	☐	☐	☐	☐	☐
Sales volume Growth in New Ventures…….	☐	☐	☐	☐	☐

10. On average, over the last three years, your firm's annual export sales has…

Grown by ☐ % OR Declined by ☐ %

11. Across all your export ventures…	*Strongly Agree*		*Neutral*		*Strongly Disagree*
Customers' product preferences have not changed much since 2011.	1	2	3	4	5
Customers' product preferences shifted a lot over the last three years.	1	2	3	4	5

12. Over the past 3 years, across the firm's entire export operation, how satisfied are you with…

	Very Strongly Satisfied	*Strongly Satisfied*	*Satisfied*	*Neutral*	*Dissatisfied*	*Strongly Dissatisfied*	*Very Strongly Dissatisfied*
Export sales volume……	☐	☐	☐	☐	☐	☐	☐
Export sales turnover…...	☐	☐	☐	☐	☐	☐	☐
Export market share……..	☐	☐	☐	☐	☐	☐	☐
Rate of new market entry..	☐	☐	☐	☐	☐	☐	☐
Export sales growth rate...	☐	☐	☐	☐	☐	☐	☐

PART A: your latest export venture

Please recall your firm's most recent export venture (a venture is a product or service sold in a market):

1. What country was the venture in? ……..
2. What year did you enter this product-market? (e.g. 2009) ……..……..
3. Was this <u>mainly</u> a: **product** ☐ **service** ☐ **product & service** ☐ **(Tick one box)**
4. How would you describe this product or service (its class or type)?.....
5. Is this the first time your firm tried to enter this market with this product? ☐ **Yes** ☐ **No**

In COLUMN 1, tick ALL the methods that you used when entering this market, then in COLUMN 2, tick Only ONE method that represents your predominant way of exporting to this market.

COLUMN 1 *We entered this market using … (Tick ALL the options that apply)*	COLUMN 2 *The main method we use in this market is… (Tick only ONE)*
☐ **Sales agent:** this agent is an independent permanent representative of your firm in this foreign market; they sell your products on behalf of you.	☐ Now go to **PART B**
☐ **Collaboration:** you have set up a collaboration in the market (e.g. a Joint Venture, piggy backing, commercial franchising, or licencing)	☐ Now go to **PART C**
☐ **Foreign importer or distributor:** you sell your product to an independent foreign business, who resells it in the foreign market at its own risk / profit.	☐ Now go to **PART D**
☐ **Direct sales:** you sell directly in the foreign market, but you do <u>not</u> use local intermediaries, have a local presence, or employ export sales representatives.	☐ Now go to **PART D**
☐ **Salaried representatives:** you employ a salaried staff member to sell your product in the foreign markets. You have <u>not</u> invested in sales office, etc.	☐ Now go to **PART D**
☐ **Branch office or Subsidiary:** you have a local presence in the market and have invested directly in it (e.g. sales office, warehousing)	☐ Now go to **PART D**

PART B

1. When we created the relationship with this agent (i.e. this partner):

	Closely Describes	*Somewhat Describes*	*Neutral*	*Somewhat Describes*	*Closely Describes*	
Formal or informal <u>rules</u> defined how we did business	☐	☐	☐	☐	☐	How we did business was not described in detail, we made it up as we went along
The expectations regarding how the agent should operate were clearly articulated, either formally or informally	☐	☐	☐	☐	☐	We did not set out clear guidance as to how the agent should go about selling or supporting our products in the export venture

2. Did you enter into a formal contract with this agent for a set number of years? (Tick one box)

☐ **No – Go to Question 7** ☐ **Yes – Go to question 3**

3. How long was the contract for? (Please enter a number) (years) (months)

4. Was this a rolling contract? (Tick one box)

☐ **No – Go to Question 6** ☐ **Yes – Go to question 5**

5. How much advance notice was required to terminate the contract? (years) (months)

6. Has the contract run out? (Tick one box) ☐ **Yes** ☐ **No**

7. Are you still working with this partner? (Tick one box) ☐ **Yes** ☐ **No**

Now Please Go To PART E

PART C

1. Of the following 3 statements, **tick the one** that best describes your collaboration partnership in this venture.

We use an equity-based joint venture (JV) with one or more partner firms, with each party owning a proportion of the new business. We use the JV to generate revenues in the new export product-market.	☐ **Now go to question 2**
We use a non-equity based strategic alliance (e.g. piggy backing, franchising, licencing) to sell our product or service or intellectual property in this venture. Our company and its partners remain independent and separate.	☐ **Now go to question 4**
Other: Please specify ……	☐ **Now go to question 4**

2. We own ☐ **%** of the Venture equity.

3. We could buy more equity in the venture…

With Ease	1	2	3	4	5	6	*With Difficulty*

We could sell equity share in the venture…

With Ease	1	2	3	4	5	6	*With Difficulty*

4. Have you got a formal contract with this partner? (Tick one box)

☐ **No – Go to question 6** ☐ **Yes – Go to question 5**

5. Approximately how many years/ months has this collaborative partnership been in operation? (years) (months)

6. Does this collaborative partnership have a planned length of existence? (Tick one box)

☐ **No – Go to question 8** ☐ **Yes – Go to question 7**

7. How long (from now) is this planned length of the collaboration? (years) (months)

8. Do you have previous experience with similar collaborations? (Tick one box) ☐ **No** ☐ **Yes**

9. Do you have past experience collaborating with this partner? (Tick one box) ☐ **No** ☐ **Yes**

10. Please indicate your degree of agreement with the following. (Enter a number in each box)

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very Strongly Agree*
1	2	3	4	5	6	7

Our partnership is based on shared informal understanding, rather than on specific terms and conditions…..	
We discussed each element of doing business with the partner(s) before the collaboration started……..	
We were as specific as possible in outlining each partner's commitments to the collaboration……..	

Now Please Go To PART E

PART D

When you entered the last market, your main method of entering the new market could have been to choose a partner to collaborate with (e.g. an agent, a JV partnership, licencing agreement, strategic alliance and so on). Did you consider employing a partner as your main method for this venture?

☐ No – We did not even think about it ➢ Please go to **Part F**

☐ Yes – It crossed our mind, but we chose not to use a partner ➢ Please go to **Part E**

PART E

Prior to choosing this method of entry to this market, what did you feel about the chances of your potential partner behaving in the following ways?

0	1	2	3	4	5	6	7	8	9	10
No chance, almost no chance ***(1 in 100)***	*Very slight possibility* ***(1 in 10)***	*Slight possibility* ***(2 in 10)***	*Some possibility* ***(3 in 10)***	*Fair possibility* ***(4 in 10)***	*Fairly good possibility* ***(5 in 10)***	*Good possibility* ***(6 in 10)***	*Probable* ***(7 in 10)***	*Very probable* ***(8 in 10)***	*Almost sure* ***(9 in 10)***	*Certain, practically certain* ***(99 in 100)***

We felt the partner might allow their self-interests to override the joint interests of our collaboration…… ☐

We felt the partner might try to behave opportunistically…… ☐

We felt the partner might try to take advantage of the relationship…… ☐

Now Please Go To PART F

PART F

1. **In your firm, you might share marketing responsibilities (i.e. sales, pricing, distribution, advertising, commercialising, retailing, market growth, marketing strategy, etc.) with other entities, like agents, distributors, partners and various collaborations.**

In this export venture, what percentage of marketing are you actively doing yourself? (Tick one box)

0-20%	21-40%	41-60%	61-80%	81-100%
☐	☐	☐	☐	☐

2. **In this export venture, monitoring and evaluating the performance of all sales activities… (Tick one box)**

Is Difficult	1	2	3	4	5	6	7	*Is Easy*

3. **When you entered your last export venture, you possibly invested in it in several ways. (e.g. investments in training, skill development, physical facilities and marketing, so on):**

If we were to withdraw from this venture completely:	***Strongly Disagree***			***Neutral***			***Strongly Agree***
We would lose a lot of investment made in the venture	1	2	3	4	5	6	7
It would be impossible to recoup the investment made in this venture	1	2	3	4	5	6	7
The resources invested in it could not be rechanneled to other projects	1	2	3	4	5	6	7

4. **Still considering your recent venture and the product you sell there, how much do you agree with the following statements?**

	Not at all			***To a Moderate Extent***			***To an Extreme Extent***
The rate of growth in this country for this product is very strong	1	2	3	4	5	6	7
The sales potential for this product in this country is huge	1	2	3	4	5	6	7

5. Continue to think about the last export venture your firm entered and indicate your opinions to the following statements.

		Strongly Disagree			*Neutral*			*Strongly Agree*
The cultural factors (e.g. social and business customs, practices and norms), in this market were …	hard to understand	1	2	3	4	5	6	7
	hard to predict	1	2	3	4	5	6	7
	challenging to grasp	1	2	3	4	5	6	7

Continue to think about the last export venture your firm entered and indicate your opinions to the following statements.

In this market , we felt that …

the competition would be	Unstable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Stable
	Unpredictable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Predictable
	Difficult to forecast	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Easy to forecast
sale volume would be	Easy to estimate	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Hard to estimate
	Certain	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Uncertain
	Predictable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Unpredictable
customers' needs and wants would be	Unstable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Stable
	Evolving in unpredictable way	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Evolving in predictable way
	Hard to identify future shape	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Easy to identify future shape
the composition of our customer base would be	Easy to predict	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Hard to predict
	Easy to forecast	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Hard to forecast
	Easy to profile	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Hard to profile

When considering investing our business resources (e.g. manpower, money, physical assets, training, marketing, etc.) in this market, we felt …

the resources would be	Safe	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Unsafe
	Protected	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Unprotected
	Secure	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Unsecure
the benefits of investing were	Uncertain	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Certain
	Unpredictable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Predictable
	Hard to estimate	*1*	*2*	*3*	*4*	*5*	*6*	*7*	Easy to estimate

In this market …

	Strongly Disagree			*Neutral*			*Strongly Agree*
the nature of competitive actions changes slowly	1	2	3	4	5	6	7
the evolution of customer demands and requirements is quick	1	2	3	4	5	6	7

In this market, we were uncertain whether …

	Strongly Disagree			*Neutral*			*Strongly Agree*
our product/ service technology would be adopted	1	2	3	4	5	6	7
the technical specification of our offerings would be accepted	1	2	3	4	5	6	7

In this market, how certain were you about whether …	Very Uncertain			Neutral			Very Certain
technology adoption would follow global trends	1	2	3	4	5	6	7
technological changes would mirror global technological changes	1	2	3	4	5	6	7
technological dynamics would mimic global technological dynamics	1	2	3	4	5	6	7

6. Please indicate your level of agreement regarding your last export venture.

Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
1	2	3	4	5	6	7

There is a real risk that competitive action will lock us out of market opportunities for this product in this country.

In this market, competitive moves are key threats to our success……

There is a risk that competitive strategies threaten the viability of this venture……

7. Please provide your opinion on your export sales achievements in this export venture.

	Much Less than We Expected						Much Higher than We Expected
Export sales volume	1	2	3	4	5	6	7
Export sales turnover	1	2	3	4	5	6	7
Export sales share	1	2	3	4	5	6	7
Export sales growth rate	1	2	3	4	5	6	7

8. For this venture, please rate your satisfaction with…

	Strongly Satisfied			Neutral			Strongly Dissatisfied
Overall venture profit	1	2	3	4	5	6	7
Venture profit goal achievement	1	2	3	4	5	6	7
Meeting the venture profit objectives	1	2	3	4	5	6	7

9. Over the last year, sales turnover in this export venture has …

Grown by ____ % **OR** Declined by ____ %

SECTION II: COMPANY PROFILE

1. In which industry does your company operate? ____

2. How would you describe technological characteristics in this industry?

	Strongly Disagree			Neutral			Strongly Agree
In this industry, technology is changing rapidly.	1	2	3	4	5	6	7
In this industry, technology advancements are occurring at a fast pace.	1	2	3	4	5	6	7

3. Approximately how long has your company been in business? ____ (Years) **OR** Since ____

4. Approximately how long has your company been exporting? ____ (Years) **OR** Since ____

5. Approximately how many full-time staff does your company currently employ? (on the UK wage book) ____

6. Of this number, approximately how many are directly involved in the company's export activities? ____

7. Does your company have a separate formal export department? (Please tick one) ☐ **No** ☐ **Yes**

8. Approximately what percentage of your company's export sales is generated by …

Physical products	%
Services	%
Total	100 %

9. Approximately what percentage of your company's export sales are directly generated by…

Business to Consumer sales	%
Business to Business sales	%
Total	100 %

10. Which of the following destinations does your company export to? (Tick all that apply)

EU		Eastern Europe		North America	
Mainland China		Other Asian Countries		South & Central America	
Middle East		Australia/ New Zealand		Africa	

Over the last financial year…

11. Approximately what percentage of your total sales turnover was generated by exports? %

12. Approximately how many countries did your company export to?

13. Approximately what percentage of total sales turnover was spent on R&D? %

14. Approximately what percentage of your annual total profit is derived from exports? %

15. Compared with the size of your export competitors, your company is best described as...(Circle one of the following)

Very Small Player	Small Player	About Average Player	Large Player	Very Large Player
1	2	3	4	5

SECTION III: ABOUT YOUR EXPORT OPERATIONS

1. Please indicate the extent to which your firm has developed real competency on the following fronts (for each, circle a number).

	Capability Poorly Developed						*Capability Highly Developed*
Turning an understanding of export customers' needs into a strategy for competitive advantage	1	2	3	4	5	6	7
Ensuring that business objectives are driven primarily by export customer satisfaction	1	2	3	4	5	6	7
Creating export customer value	1	2	3	4	5	6	7
Responding to changes in foreign customers' product or service needs	1	2	3	4	5	6	7

2. **Roughly how much of your firm's total export marketing operations (i.e. sales, advertising, distribution, pricing, etc) are performed directly by:**

(Please notice that the sum should be 100%)

People operating from the domestic office (and not traveling overseas)	%
People operating from your foreign offices and subsidiaries	%
Other company employees (salaried sales reps) operating in your foreign markets	%
Foreign sales agents	%
Foreign importers and distributors	%
Collaborations (e.g. a Joint Venture, piggy backing, commercial franchising, or licencing)	%
Total	100 %

3. Please indicate the extent to which the following statements represent the actual situation in your company.

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an Extreme Extent*
1	2	3	4	5	6	7

In our export operations...

Export personnel behave autonomously…….. ☐
Export personnel are self-directed in pursuit of export opportunities…… ☐
Export personnel act independently to carry out their ideas through to completion…… ☐
Management approves of independent activities by export personnel to develop new export opportunities…. ☐

We seek to exploit anticipated changes in our export ventures ahead of our rivals…… ☐
We seize initiatives whenever possible in our export venture operations…….. ☐
We act opportunistically to shape the export environment in which we operate…….. ☐
We consistently try to position ourselves to meet emerging export venture demands…….. ☐

Over the last 3 years, comparing to our key competitors…

Our company has produced more new products/services for our export ventures…….. ☐
On average, each year we have introduced more new products /services in our export ventures…… ☐
Industry experts would say that we are more prolific when it comes to introducing new products/services……. ☐

4. Please circle the numbers that best reflect your degree of agreement with the following statements.

In our export operations …	*Strongly Agree*			*Neutral*			*Strongly Disagree*
We typically adopt an “undo-the-competitor” posture	1	2	3	4	5	6	7
We tend to target our export competitors weaknesses	1	2	3	4	5	6	7
We take hostile steps to achieve our competitive goals	1	2	3	4	5	6	7
Our actions towards export competitors can be termed as aggressive	1	2	3	4	5	6	7

In our export operations …	*Strongly Agree*			*Neutral*			*Strongly Disagree*
Our top export managers tend to invest in high-risk export projects	1	2	3	4	5	6	7
Our company shows a great deal of tolerance for high risk export projects	1	2	3	4	5	6	7
Our export strategy is characterised by a strong tendency to take risks	1	2	3	4	5	6	7
Taking chances is part of our export business strategy	1	2	3	4	5	6	7

5. Remembering our assurance of confidentiality, over the last financial year…

- Approximately what was the sales turnover of your company? £ ☐ million
- Approximately what was your firm’s average profit (before tax) as a percentage of sales? ☐ %

6. Relative to our main export competitors, the products and services that we offer in our export ventures are …	*Less than Competitors*			*The Same*			*More than Competitors*
Revolutionary	1	2	3	4	5	6	7
Inventive	1	2	3	4	5	6	7
Novel	1	2	3	4	5	6	7
Creative	1	2	3	4	5	6	7
Radical	1	2	3	4	5	6	7

SECTION IV: ABOUT YOURSELF

➢ **The next set of questions seeks to learn a little bit about you.**

1. What is your job title?
2. How long have you been with your company?
3. Are you a person with responsibility for export decision making? (Please tick one) ☐ **Yes** ☐ **No**

4. Please indicate your agreement with the following statements.	*Strongly Disagree*			*Neutral*			*Strongly Agree*
This questionnaire deals with issues I am knowledgeable about	1	2	3	4	5	6	7
My answers to the questions in the questionnaire are accurate	1	2	3	4	5	6	7

THIS CONCLUDES THE QUESTIONNAIRE!

Thank you very much for your time and valuable contribution to the study.

To receive a copy of the final managerial report from the study, please enclose your business card along with the questionnaire in the FREE POST envelope, OR enter your email address below*:

_____

(please use BLOCK CAPITALS**)**

***Alternatively, please feel free to request a report via email from N.Yazdani@lboro.ac.uk.**

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Survey wave:	*P / M*	*1 / 2*
Survey code:		
Questionnaire received:		*__/__/ 201_*

Appendix4.2 Pilot study- Data collection procedure 1

Appendix 4.2 (a) Cover letter

School of Business and Economics

Loughborough University Leicestershire LE11 3TU UK
Switchboard: +44 (0)1509 263171 www.lboro.ac.uk/sbe

[Date]

Dear **[Respondent's Name]**

I am writing to ask your participation in an export research. I am well aware that this request to fill this questionnaire represents a demand on your already busy schedule, but your participation could make a real difference in this study and my PhD and is highly appreciated.

Here are some highlights and further information about this questionnaire you have received:

Who am I?
I am an export doctoral researcher at the School of Business and Economics in Loughborough University, where our research team is currently undertaking research in the area of export marketing decisions. The work is fully sponsored by the university. My contact details are listed at the end of this cover letter.

What is this research about?
This study aims to provide a decision-making tool for export managers to help them choose the market entry strategies. Please contact us for further information.

What you need to do now?
Please fill in the attached questionnaire, and put it in the provided paid and addressed envelope and send it back to us. Our pre-test estimates 25-35 minutes to fill the survey. Please rest assured that any information you provide will be treated confidentially and for academic purposes only.

What happens next?
When we receive back all the questionnaires that we have sent out to a relatively large sample of British exporters, statistical and numerical analysis will be carried out on the aggregated data to establish patterns and tease out relationships. To appreciate your very kind contribution to this study, we are happy to send you the results of this study on its completion.

Please do not hesitate to contact me, should you have any queries.

Yours sincerely,

Nahid Yazdani

Doctoral Export Researcher
The Marketing and Retailing Group
Mobile: 07552788510
Email:N.Yazdani@lboro.ac.uk

Appendix 4.2 (b) Reminder letter

School of Business and Economics

Loughborough University Leicestershire LE11 3TU UK
Switchboard: +44 (0)1509 263171 www.lboro.ac.uk/sbe

[Date]

Dear **[Respondent's Name]**

During the past fortnight, a questionnaire on "**Export market entry decisions**" was mailed to you and I hope you have received it.

If you have already returned it to me, please accept my sincere thanks. If you have not yet had the chance to complete the questionnaire (and I am well aware that this does place a strain on your busy schedule), I would like to take this opportunity to tell you that I still need your response, since your answers are critical for the accuracy and success of this research project and my PhD. I confirm that all replies are **strictly confidential**. If you did not receive a copy of the questionnaire, or have any questions about this study, please do not hesitate to contact me using the details given below.

Thank you, your support is greatly appreciated.

Kind regards,

Nahid Yazdani

Doctoral Export Researcher
The Marketing and Retailing Group
Mobile: 07552788510
Email:N.Yazdani@lboro.ac.uk

Appendix 4.2 (c) Second cover letter

School of Business and Economics

Loughborough University Leicestershire LE11 3TU UK
Switchboard: +44 (0)1509 263171 www.lboro.ac.uk/sbe

[Date]

Dear **[Respondent's Name]**

During the past month, we have sent you several mailings about an on-going research study we are conducting in the Loughborough University- School of Business and Economics. The aim of this study is to develop decision-making tools to help businesses choose more efficient export market entry strategies.

As explained earlier, based on our initial study, your company is one of the firms that meet our research criteria. I had sent you a copy of the questionnaire, and if you have not yet had the chance to complete the questionnaire (and I am well aware that this does place a strain on your busy schedule), I would like to take this opportunity to tell you that I still need your response, since your answers are critical for the accuracy and success of this research project and my PhD as well.

To appreciate your generous contribution to this project, I would be delighted to send you, at your request, a managerial summary of the study's key findings on completion of the work. **This report will not contain any information on any specific firm (only aggregated data will be provided).**

I am sending you another copy of the questionnaire with this letter, for your kind consideration. My pre-test estimates 25-35 minutes to complete the survey. Please rest assured all information will be treated confidentially and strictly for academic (not commercial) purposes. However, if you wish to opt out, please let us know by returning the blank questionnaire and preferably with an opt-out note on it.

Please do not hesitate to contact me should you have any queries.

Yours sincerely,

Nahid Yazdani

Doctoral Export Researcher
The Marketing and Retailing Group
Mobile: 07552788510
Email:N.Yazdani@lboro.ac.uk

Appendix 4.3 Pilot study-Data collection procedure 2

Appendix 4.3(a) Cover letter

School of Business and Economics

Loughborough University Leicestershire LE11 3TU UK
Switchboard: +44 (0)1509 263171 www.lboro.ac.uk/sbe

[Date]

Dear **[Respondent's Name]**

I would like to thank you for being willing to participate in this research. I am well aware that this request to fill this questionnaire represents a demand on your already busy schedule, but your participation could make a real difference in this study and my PhD and is highly appreciated.

Here are some highlights and further information about this questionnaire you have received:

Who am I?
I am an export doctoral researcher at the School of Business and Economics in Loughborough University, where our research team is currently undertaking research in the area of export marketing decisions. The work is fully sponsored by the university. My contact details are listed at the end of this cover letter.

What is this research about?
This study aims to provide a decision-making tool for export managers to help them choose the market entry strategies. Please contact us for further information.

What you need to do now?
Please fill in the attached questionnaire, and put it in the provided paid and addressed envelope and send it back to us. Our pre-test estimates 25-35 minutes to fill the survey. Please rest assured that any information you provide will be treated confidentially and for academic purposes only.

What happens next?
When we receive back all the questionnaires that we have sent out to a relatively large sample of British exporters, statistical and numerical analysis will be carried out on the aggregated data to establish patterns and tease out relationships. To appreciate your very kind contribution to this study, we are happy to send you the results of this study on its completion.

Please do not hesitate to contact me, should you have any queries.

Yours sincerely,

Nahid Yazdani

Doctoral Export Researcher
The Marketing and Retailing Group
Mobile: 07552788510
Email:N.Yazdani@lboro.ac.uk

Appendix 4.4 Pilot study- Data collection procedure 3

Appendix 4.4 (a) Pre-notification letter

School of Business and Economics

Loughborough University Leicestershire LE11 3TU UK
Switchboard: +44 (0)1509 263171 www.lboro.ac.uk/sbe

[Date]

Dear **[Respondent's Name]**

Following my initial contacts with your company with regard to the on-going study that we have conducted at the Loughborough University – School of Business and Economics, your contact details was given to us as the best person to correspond.

A few days from now, you will receive an envelope, containing a survey on the UK firms' export market entry decisions. The questionnaire is targeting companies like yours, with export activities, and it is designed to be answered by someone knowledgeable of the firm's export sales and decision-making practices. Below, you can see who we are, and what this research is pursuing and what it has to offer to your organisation on its completion.

My PhD study highly depends on the results of this survey and your participation; and therefore, I must humbly seek your kind contribution, by filling and sending back the questionnaire in the provided stamped return envelope.

Please feel free to contact us, should you need any further information about this study.

Yours sincerely,

Nahid Yazdani

Export Doctoral Researcher
School of Business and Economics,
Loughborough University
Mobile: 07552788510
Email: N.Yazdani@lboro.ac.uk

Here are some highlights and further information about this questionnaire you will receive:

Who am I?

I am a Doctoral researcher at the School of Business and Economics in Loughborough University.
My team (including Professor Cadogan and Dr. Perks) and I are undertaking research in the area of export marketing decisions. Importantly, my PhD success now depends on getting enough data about firms like yours!

What is this research about?

This study aims to develop decision-making tools to help businesses choose market entry strategies.

What you need to do?

Please fill in the questionnaire when you receive it, put it in the enclosed pre-paid and addressed envelope and return it to me. My pre-test estimates 25-35 minutes to complete the survey. Rest assured, all information will be treated confidentially and strictly for academic (not commercial) purposes.

What happens next?

When I have enough questionnaires returned, I will analyse the aggregated data to establish patterns and tease out relationships between the variables in the study. To appreciate your very kind contribution to this project, I would be delighted to send you my results on completion of the work.

Appendix 4.4 (b) Cover letter

School of Business and Economics

Loughborough University Leicestershire LE11 3TU UK
Switchboard: +44 (0)1509 263171 www.lboro.ac.uk/sbe

[Date]

Dear **[Respondent's Name]**

I am writing, on behalf of our research group at the Loughborough University – School of Business and Economics, to ask for your input into an on-going research on the export market entry decision. Your contact details came out of our initial contacts with your organisation, as the best person to approach for this study.
Hereby, please accept my request to contribute to this research by completing the attached questionnaire about your export operations and decisions at your organisation. I am well aware that this request to fill this questionnaire represents a demand on your already busy schedule, but your participation could make a real difference in this study and my PhD, and is highly appreciated. I need to tap into your expertise!

Here are some highlights and further information about this questionnaire you have received:

Who am I?
I am a Doctoral researcher at the School of Business and Economics in Loughborough University. My team (including Professor Cadogan and Dr. Perks) and I are undertaking research in the area of export marketing decisions. Importantly, my PhD success now depends on getting enough data about firms like yours!

What is this research about?
This study aims to develop decision-making tools to help businesses choose market entry strategies.

What you need to do now?
Please fill in the attached questionnaire, put it in the enclosed pre-paid and addressed envelope and return it to me. My pre-test estimates 25-35 minutes to complete the survey. Rest assured, all information will be treated confidentially and strictly for academic (not commercial) purposes.

What happens next?
When I have enough questionnaires returned, I will analyse the aggregated data to establish patterns and tease out relationships between the variables in the study. To appreciate your very kind contribution to this project, I would be delighted to send you my results on completion of the work.

Please do not hesitate to contact me, should you have any queries.
Yours sincerely,

Nahid Yazdani

Doctoral Export Researcher
The Marketing and Retailing Group
Mobile: 07552788510
Email:N.Yazdani@lboro.ac.uk

Appendix 4.5 Pilot study- Data collection procedure 4

Appendix 4.5(a) Invitation letter

Dear **[Respondent's Name]**

Thanks for accepting my invitation on LinkedIn. I am a PhD researcher at School of Business and Economics in Loughborough University. I am currently undertaking a research in the area of export marketing decisions, which is fully funded by the university.

This study aims to provide a decision-making framework for export managers on the best possible market entry strategy in different host market's business environment. This study targets the export activity of the firms in any sector within the UK and therefore, addresses the export, marketing or senior managers of these firms for a survey study.

Having looked at your profile, your much-related experience, I am sure you can be of a great cooperation to this research, if you kindly accept my humble invitation for this collaboration. I would be very grateful if you, or your export sales/marketing manager/director, could complete a questionnaire on export marketing practices.

This should take you up to 35 minutes to complete. I am well aware that this request represents a demand on your already busy schedules, but your participation could really make the difference between success and failure of this study, and my PhD. Therefore, your co-operation is greatly appreciated.

If you are interested at all, I will send you the questionnaire by post. As a way of expressing my appreciation for assisting me in my research, I guarantee you a complimentary report containing a summary of this study.

Please feel free to contact us at Loughborough University, should you need any further information. The contact details are followed.

Sincerely yours,
Nahid Yazdani

Export Doctoral Researcher
Marketing and Retailing Group
School of Business and Economics
Loughborough University
Email: N.Yazdani@lboro.ac.uk
Direct Line: 01158374560
Mobile: 07552788510

Appendix 4.6 Main survey

Loughborough University

Entrepreneurship in the 21st Century & Export Market Entry Decisions

In this study we aim to explore multiple dimensions of firms' entrepreneurial behaviour, export country entry decisions and overall marketing approaches throughout export countries. We try to quantify multiple internal and external firm factors in order to identify common practices and outcomes.

Thank you
for agreeing to participate in this study.
All the information collected will be treated in the strictest confidence and the questionnaires will be treated anonymously.

•

You may respond in complete frankness; all your answers will remain absolutely confidential.

SECTION I: YOUR COMPANY'S EXPORT ACTIVITIES

1. **The following questions relate to your company's OVERALL MARKETING APPROACH over the past 3 years. For each question, please circle the number that best reflects your company's approach.**

We approached the world as a set of countries, each of them with specific local needs and wants	1	2	3	4	5	6	7	We have approached the world as one big market with common needs and wants
We designed our product/service offerings on an individual country-by-country basis	1	2	3	4	5	6	7	We designed our product/service offerings on a global basis
We adjusted our practices locally to satisfy foreign countries' needs and preferences	1	2	3	4	5	6	7	We marketed our products in the same way globally
Our product/service offerings were customized to cater for different country-specific local needs	1	2	3	4	5	6	7	Our product/service offerings were identical in every country we operated in

Definition:

Productscan be consumer goods (e.g. cars, shoes, lamps), industrial goods (e.g. electronic valves, welders, pumps), raw materials (e.g. coffee, wood), or services (e.g. business consultancy, IT support).

2. How many different products has your company exported over the past 3 years? ____ (Please insert a number)
(Note: We are not asking about the number of units sold by your company, just the number of different types of products exported.)

3. **Think back over the last 3 years:**

How many foreign countries has your company exported each product to on average? _____ (insert number)

***Please read carefully before you answer the following questions*:**

*A product **"version"** is a product that is customised to the specific requirements of foreign export countries. Customisation may relate to ANY of the product's features including, but not limited to, colour, materials, design and style, quality, brand name, packaging, labelling, etc.*

A particular product "version" may be sold across multiple export countries.

4. **Please think of a TYPICAL product that your company exports and fill-in the gaps:**

"Over the past 3 years, our typical product was exported to _____ (insert number) countries and there were _____ (insert number) versions of it sold".

5. **Is the number of versions you entered in question 4a fair representation of the average number of versions your company has created per product over the past 3 years?**

Yes ☐ → Please go to question 7 No ☐ → Please go to question 6

6. **Insert a more accurate figure for the AVERAGE NUMBER OF VERSIONS your company has created per product over the last 3 years** _____ (insert number).

7. **Consider the entire range of products that your company has exported over the past 3 years.**

Typically, when we created different versions of a product… (Please circle)

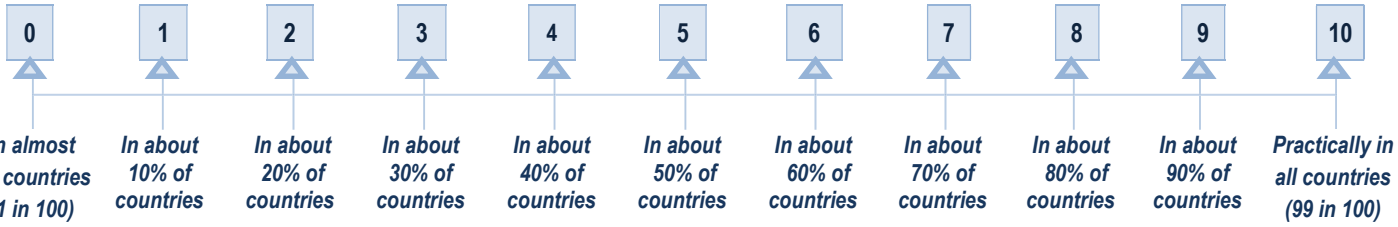
we have kept most product features identical	1	2	3	4	5	6	7	we have modified most of the product's features
westandardized most product features	1	2	3	4	5	6	7	most product features were customized
we tended not to make modifications to many features of the product	1	2	3	4	5	6	7	we changed nearly all features of the product
each product version targeted a single customer	1	2	3	4	5	6	7	each product version targeted an entire country

8. **Over the past 3 years, when we created different versions of a product to export it to different countries, we have typically changed about _____% of the product's features** (examples of product features include, but are not limited to, color, materials, design and style, quality, brand name, packaging, labeling).

9. Over the past 3 years,when we modifiedthe features of a product to create different product versions we typically made:

Novel changes ……..	*Not at all*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*To an extreme extent*
Cutting-edge changes…….....	*Not at all*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*To an extreme extent*
Radical alterations ……..	*Not at all*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*To an extreme extent*
Inventive alterations ……..	*Not at all*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*To an extreme extent*
Creative changes……..….	*Not at all*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*To an extreme extent*

10. **Using the scale presented below, put the appropriate number in each box.**



Over the past 3 years,

We charged the same prices for the same products across our export countries ……..	
We used the same promotional strategies for the same products across our export countries…….....	
We use the same distribution strategies for the same products across our export countries…….....	

11. **Overall, coordinating our export operations over the past 3 years has been:**

Easy	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Difficult*
Simple	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Complex*
Undemanding	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Demanding*
Inefficient	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Efficient*
Costly	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*Inexpensive*

SECTION II: YOUR NEW EXPORT PRODUCTS/COUNTRIES

1. How many "new-to-the-world" products has your company introduced in its export countries, over the last 3 years? _____ (Insert number)

> ➢ **Note: "New-to-the-world"** products are products that are new to your company and to your markets.

2. Approximately, into how many new export countries has your company entered in the last 3 years? _____ (Insert number)

3. **Using the scale presented below, pleaseenter a number in each box to indicate your level of agreement with the following statements.**

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very Strongly Agree*
1	2	3	4	5	6	7

Over the past 3 years:

We tended to be able to roll-out new products across all our export countries quickly	
We achieved planned time schedules for the roll-out of new products across our exportcountries	

4. **The following questions refer to your business model over the past 3 years. (Circle the appropriate number in each row)**

We have implemented new business models	*Not at all*	1	2	3	4	5	6	7	*To an extremeextent*
Our business model has changed	*Not at all*	1	2	3	4	5	6	7	*To an extreme extent*

5. **The following questions are about new export opportunities (Insert a number in each box)**

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very Strongly Agree*
1	2	3	4	5	6	7

Over the past 3 years, before implementing a new export opportunity:

We have consistently used business plans (or similar documents) with concrete analysis prior to an executive decision…..... ☐

In the planning phase of new export opportunities, we have explicitly asked 'How do we make money from this?'……..…..... ☐

We have typically deployed people to coordinate intelligence across all business units (e.g. R&D, marketing)……..... ☐

We have typically deployed people to coordinate intelligence with our external partners……..……..…..…… ☐

Over the past 3 years, prior to making executive decisions regarding new export opportunities:

We have deployed people to prepare the new export opportunity for Senior management or the Board……..……..... ☐

We deployed people to conduct due diligence (e.g. verification of legal issues, contracts, market analysis)……..…..... ☐

Over the past 3 years, when implementing an export opportunity we have usually employed the same people who prepared the opportunity:

To provide support for those implementing it……..…….....…… ☐

To feedback progress on implementation to senior management……..…… ☐

6. **Please think of your company's business model and circle the appropriate number in each row.**

Over the last 3 years our business model:

Has shown itself to be vulnerable	1	2	3	4	5	6	7	*Has shown itself to be resilient*
Was inappropriate	1	2	3	4	5	6	7	*Was ideal*
Has shown itself to be out-of date	1	2	3	4	5	6	7	*Has shown itself to be state-of-the-art*

SECTION III: YOUR UPDATES TO EXISTING EXPORT PRODUCTS

➢ **The questions that follow relate to your company's activities concerning the improvement / update of its existing products over time.**

Important Note:

*For our purposes, **product improvements/updates** of an existing product include (but are not limited to) the following: adding new features to the product, removing old features from the product, and modifying/improving features of the product (e.g. color, software, packaging).*

1. Over the past 3 years, we have improved/updated about ____% of our firm's existing products(please enter a percentage).

2. For a typical product, in the last 3 years we have improved/updated the product ____ times(please insert number).

3. Typically, over the past 3 years, when we improved/updated a product for our export countries, we have changed approximatelywhat percentage of i ☐ %

4. **Over the past 3 years, when we improved/updated an existing product we already export, the changes made were typically…**

	Not at all			*To a moderate extent*			*To an extreme extent*
Novel	1	2	3	4	5	6	7
Cutting-edge	1	2	3	4	5	6	7
Fresh	1	2	3	4	5	6	7
Radical	1	2	3	4	5	6	7

SECTION IV: YOUR EXPORT VENTURES

***Definition*: An Export Venture is "A single product/service category sold in a single foreign country".** *For example:*

- Selling a product or service in Spain is one export venture.
- Selling the same product or service in Italy is a second export venture.
- Selling a different product or service in Spain is a third export venture.

➢ **Approximately how many export ventures does your firm have?**
(Please write the number in the box)

1. **Across your export ventures, you might share marketing responsibilities (i.e. sales, pricing, distribution, advertising, commercializing, retailing, market growth, marketing strategy, etc.) with other entities, like agents, distributors, partners and various collaborations.**

▷ **Please answer the following questions (enter a numberbetween 0 and 10 for each question).**

0	1	2	3	4	5	6	7	8	9	10
Almost none <1%	*10%*	*20%*	*30%*	*40%*	*50%*	*60%*	*70%*	*80%*	*90%*	*Almost all >99%*

Currently…

What percentage of marketing do you control in your export operations?..

What percentage of marketing are you actively doing yourself in your export countries?..

What percentage of marketing activities across all your ventures does your firm take responsibility for?...

▷ **Over the past 3 years, when thinking about the possibility of sharing export marketing responsibilities with other businesses, we felt that other businesses might... (Enter numbers in the boxes provided)**

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an Extreme Extent*
1	2	3	4	5	6	7

Allow their self-interests to override the joint interests of our collaboration ....

Try to behave opportunistically ....

Try to take advantage of the relationship ....

2. **Consider ALL your export ventures. Over the last 3 years, what number best represents your levels of agreement with the following?(Enter a number in each box)**

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very StronglyAgree*
1	2	3	4	5	6	7

On the whole, our firm's competitive environment has been predictable……	
We have been able to predict many of the key changes taking place in our competitive environment……	
Competition in our industry has been highly stable……	
It has been easy to forecast competitive activity in our industry……	
It has been difficult to predict the future direction of technological changes in this industry……	
In the industry that we are doing business in, the trajectory of technology advances has been unpredictable….	
The shape of future technology in this industry has been uncertain……	
Technological developments in our industry have been unpredictable ……	
The composition of our customer base has been evolving in predictable ways……	
Predicting how the composition of our customer profile will evolve in the future has been straightforward……	
We have found it easy to forecast changes to our customer profile……	
Predicting the types of customers who will buy from us has been simple ……	

3. **Across all your export ventures… (circle a number in each row)**

Customers' needs and wants ….	*Vary from venture to venture*	1	2	3	4	5	*Are the same from venture to venture*
Customers' demandsare ….	*All different*	1	2	3	4	5	*Identical*
Cultures (e.g. customs, practices) are….	*Dramatically different*	1	2	3	4	5	*Practically identical*
Cultural differences are ….	*Dramatic*	1	2	3	4	5	*Insubstantial*
The nature of competition….	*Varies from venture to venture*	1	2	3	4	5	*Does not vary from venture to venture*
Our competitors' tacticsare….	*Very dissimilar*	1	2	3	4	5	*Very similar*
The composition of our customer base ….	*"Looks" very different*	1	2	3	4	5	*"Looks" identical*
Our ventures present segments that have ….	*Different customer profiles*	1	2	3	4	5	*Identical customer profiles*
Technology levels are ….	*Very different*	1	2	3	4	5	*Completely identical*
Technology requirements are ….	*Dissimilar*	1	2	3	4	5	*Similar*
Product regulations are ….	*Different*	1	2	3	4	5	*The same*
Sales volumes are ….	*All different*	1	2	3	4	5	*All identical*

4. **Please consider ALL your company's export ventures. Overall, over the past 3 years: (Circle the numbers that best reflect your experiences).**

	Not at all				*Extremely*
It has been hard to predict customers' changing needs and wants	1	2	3	4	5
Evolving customer requirements have been hard to predict	1	2	3	4	5
It has been hard to predict where customer demands and requirements will emerge next	1	2	3	4	5

5. Consider ALL your export ventures. To what extent have you experienced the following over the last 3 years? (Enter numbers in the boxes provided)

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an Extreme Extent*
1	2	3	4	5	6	7

Cultural factors (e.g. customs, practices, and norms) have been hard to predict in our export ventures…… ☐

We have experienced uncertainty about the cultures in our export ventures…… ☐

We have been uncertain when it comes to understanding the cultures of our export ventures…… ☐

Sales volumes in our export ventures have been easy to predict…… ☐

There has been little uncertainty in our estimates of our future sales volumes in our export ventures…… ☐

We have been certain when it has come to forecasting our sales figures in our export operations…… ☐

We have felt uncertain when making decisions about whether to invest in our export ventures…… ☐

Predicting what would happen to investments in our export ventures was difficult…… ☐

We felt that investing in resources in the countries of our export ventures could be quite risky…… ☐

6. Monitoring and evaluating the performance of OUR ENTIRE EXPORT SALES ACTIVITIES over the last 3 years…

has been difficult	1	2	3	4	5	6	7	*has been easy*

7. When you enter export ventures, you possibly invest in them in several ways such as investing in training, skill development, physical facilities, marketing, and so on. If you were to withdraw from exporting altogether, how much would the following statements be true?

	Not at all						*To an Extreme Extent*
We would lose a lot of investment made in these ventures	1	2	3	4	5	6	7
It would be impossible to recoup the investment made in these ventures	1	2	3	4	5	6	7
The resources invested in them could not be rechanneled to other projects	1	2	3	4	5	6	7

8. Consider your firm's ENTIRE EXPORT OPERATIONS. For each of the following statements, please tick abox.

All things considered, we did well to achieve last year's export profit level	*Very Strongly Disagree* ☐	*Disagree* ☐	*Neither Agree or Disagree* ☐	*Agree* ☐	*Very Strongly Agree* ☐
Overall, our profit margin last year was…	*Extremely Poor* ☐	*Poor* ☐	*Neutral* ☐	*Good* ☐	*Exceptional* ☐
How satisfied are you with your export profit for last year?	*Strongly Dissatisfied* ☐	*Dissatisfied* ☐	*Neutral* ☐	*Satisfied* ☐	*Strongly Satisfied* ☐
In terms of our export profit objectives, last year's performance was…	*Far Below Expectations* ☐	*Below Expectations* ☐	*In line with Expectations* ☐	*Above Expectations* ☐	*Far Above Expectations* ☐

9. **The "Rules of the Game", in terms of how you do business, manage people, interact with governments, deal with regulations, and so on…**
(Circle one of the following)

are identical across our export ventures		*share commonalities*		*are completely different in each of our export ventures*
1	2	3	4	5

10. **Consider only your firm's NEW Productsand Services (P &S).Please tick a box on each line to indicate how satisfied you are with your firm's<u>last year performance</u>in its export operations.**

	Strongly Satisfied	*Satisfied*	*Neutral*	*Dissatisfied*	*Strongly Dissatisfied*
Export revenues from new P & S…….....	☐	☐	☐	☐	☐
Growth in exportrevenues from new P & S…….....	☐	☐	☐	☐	☐
Export market share for new P & S…….....	☐	☐	☐	☐	☐
Export sales volumes of new P & S…….....	☐	☐	☐	☐	☐
Growth in export sales volumes of new P & S….....	☐	☐	☐	☐	☐

11. **Consider all the NEW EXPORT VENTURES your firm has entered into over the last 3 years, even those you may no longer be operating in. How satisfied are you with<u>last year's performance</u>in terms of... (Please tick one box per line.)**

	WellBelowExpectations	*Below Expectations*	*Met Expectations*	*Exceeded Expectations*	*Far Exceeded Expectations*
Sale volumes in our New Ventures……..	☐	☐	☐	☐	☐
Sales turnovers in our New Ventures……	☐	☐	☐	☐	☐
Cash flows in our New Ventures……	☐	☐	☐	☐	☐
Profit margins from all New Ventures……..	☐	☐	☐	☐	☐
Return on sales from all New Ventures……..	☐	☐	☐	☐	☐
Gross profits from all New Ventures……	☐	☐	☐	☐	☐
Sales <u>revenue Growth</u> in all New Ventures……	☐	☐	☐	☐	☐
Sales <u>volume Growth</u> in all New Ventures…….	☐	☐	☐	☐	☐

12. **Last financial year, your firm's TOTAL export <u>sales</u>…**

Grew by ☐ % OR Declined by ☐ %

13. **Last financial year, your firm's TOTAL export <u>profits</u>…**

Grew by ☐ % OR Declined by ☐ %

14. Over the past 3 years ...(Please circle a number in each row)

	Strongly Agree		Neutral		Stronglyl agree
Customers' product preferences have changed much	1	2	3	4	5
Customers' product preferences shifted a lot.....	1	2	3	4	5
We have witnessed demand for our products and services from customers who had never bought them before	1	2	3	4	5
Our new customers had different product needs than our existing customers…….....	1	2	3	4	5
Our customer base has changed a lot…….....	1	2	3	4	5
The competitive environment of our company has been highly dynamic…….....	1	2	3	4	5
Competition in our industry has changed a lot…….....	1	2	3	4	5
Our competitive environment has been evolving continuously…….....	1	2	3	4	5
Overall, there have been constant changes in product regulations in our export countries….....	1	2	3	4	5
Frequent alterations in product regulations have been common across our export countries.....	1	2	3	4	5

Part A: Recall Your Most Recent Export Venture

1.A venture is a product / service sold in a country: What country was the venture in?_____

COLUMN 1, tick ALL the methods that you used when entering this country, then in COLUMN 2, tick only ONE method that represents your predominant way of exporting to this country.

COLUMN 1 *We entered this country using ...* *(Tick ALL the options that apply)*	COLUMN 2 *The main method we use in this country is...* *(Tick only ONE)*
Sales agent: this agent is an independent permanent representative of your firm in this foreign country; they sell your products on behalf of you.	Now go to **PART B**
Collaboration: you have set up a collaboration in the country (e.g. a Joint Venture, piggy backing, commercial franchising, or licencing)	Now go to **PART C**
Foreign importer or distributor: you sell your product to an independent foreign business, who resells it in the foreign country at its own risk / profit.	Now go to **PART E**
Direct sales: you sell directly in the foreign country, but you do not use local intermediaries, have a local presence, or employ export sales representatives.	Now go to **PART E**
Salaried representatives: you employ a salaried staff member to sell your product in the foreign country. You have not invested in sales office, etc.	Now go to **PART E**
Branch office or Subsidiary: you have a local presence in the country and have invested directly in it (e.g. sales office, warehousing)	Now go to **PART E**

Part B

1. When we created the relationship with thisagent (i.e. this partner):

	Closely Describes	*Somewhat Describes*	*Neutral*	*Somewhat Describes*	*Closely Describes*	
Formal or informal rules defined how we did business	☐	☐	☐	☐	☐	How we did business was not described in detail, we made it up as we went along
The expectationsregarding how the agent should operate were clearly articulated, either formally or informally	☐	☐	☐	☐	☐	We did not set out clear guidance as to how the agent should go about selling or supporting our products in the export venture

2. Did you enter into a formal contract with this agent for a set number of years? (Tick one box)

☐ **No –Go to Question 7** ☐ **Yes –Go to question 3**

3. How long was the contract for? (Please enter a number) (years)(months)

4. Was this a rolling contract? (Tick one box)

☐ **No –Go to Question 6** ☐ **Yes –Go to question 5**

5. How much advance notice was required to terminate the contract? (years) (months)

6. Has the contract run out? (Tick one box) ☐ **Yes** ☐ **No**

7. Are you still working with this partner? (Tick one box) ☐ **Yes** ☐ **No**

Now Please Go To Part D

Part C

1. Of the following 3 statements, **tick the one** that best describes your collaboration partnership in this venture.

We use an equity-based joint venture (JV) with one or more partner firms, with each party owning a proportion of the new business. We use the JV to generate revenues in the new export product-market.	☐	**Now go to question 2**
We use a non-equity based strategic alliance (e.g. piggy backing, franchising, licensing) to sell our product or service or intellectual property in this venture. Our company and its partners remain independent and separate.	☐	**Now go to question 4**
Other: Please specify ……	☐	**Now go to question 4**

2. We own ☐ **%** of the venture equity.

3. We could buy more equity in the venture…

With Ease	1	2	3	4	5	6	*With Difficulty*

We could sell equity share in the venture…

With Ease	1	2	3	4	5	6	*With Difficulty*

4. Have you got a formal contract with this partner? (Tick one box)

☐ **No – Go to question 6** ☐ **Yes – Go to question 5**

5. Approximately how many years/ months has this collaborative partnership been in operation? (years) (months)

6. Does this collaborative partnership have a planned length of existence? (Tick one box)

☐ **No – Go to question 8** ☐ **Yes – Go to question 7**

7. How long (from now) is this planned length of the collaboration? (years) (months)

8. Do you have previous experience with similar collaborations? (Tick one box) ☐ **No** ☐ **Yes**

9. Do you have past experience collaborating with this partner? (Tick one box) ☐ **No** ☐ **Yes**

Part D

This partnership was based on shared informal understanding, rather than on specific terms and conditions	1	2	3	4	5
We discussed each element of doing business with the partner(s) before the collaboration started	1	2	3	4	5
We were as specific as possible in outlining each partner's commitments to the collaboration	1	2	3	4	5

Focusing on the partner(s) you worked with, answer the following questions using the scale below (one number in each row):

0	1	2	3	4	5	6	7	8	9	10
Almost no chance (1 in 100)	*Very slight possibility (1 in 10)*	*Slight possibility (2 in 10)*	*Some possibility (3 in 10)*	*Fair possibility (4 in 10)*	*Fairly good possibility (5 in 10)*	*Good possibility (6 in 10)*	*Probable (7 in 10)*	*Very probable (8 in 10)*	*Almost sure (9 in 10)*	*Practically certain (99 in 100)*

We felt that the partner(s) might allow their self-interests to override the joint interests of our collaboration…..

We felt that the partner(s) might try to behave opportunistically……

We felt that the partner(s) might try to take advantage of the relationship…….

Now Please Go To Part F

Part E

1. When you entered the last country, your main method of entering the new country could have been to choose a partner to collaborate with (e.g. an agent, a JV partnership, licensing agreement, strategic alliance and so on). Using the number scale below, answer the following questions.

0	1	2	3	4	5	6	7	8	9	10
Almost no chance (1 in 100)	*Very slight possibility (1 in 10)*	*Slight possibility (2 in 10)*	*Some possibility (3 in 10)*	*Fair possibility (4 in 10)*	*Fairly good possibility (5 in 10)*	*Good possibility (6 in 10)*	*Probable (7 in 10)*	*Very probable (8 in 10)*	*Almost sure (9 in 10)*	*Practically certain (99 in 100)*

We felt that a partner might allow their self-interests to override the joint interests of our collaboration…….

We felt that a partner might try to behave opportunistically……

We felt that a partner might try to take advantage of the relationship…….

Part F

1. In your firm, you might share marketing responsibilities (i.e. sales, pricing, distribution, advertising, commercializing, retailing, market growth, marketing strategy, etc.) with other entities, like agents, distributors, partners and various collaborations.

In this export venture, what percentage of marketing are you actively doing yourself? (Tick one box)

0-20%	21-40%	41-60%	61-80%	81-100%

In this export venture, what percentage of marketing do you control? (Tick one box)

0-20%	21-40%	41-60%	61-80%	81-100%

2. In this export venture, monitoring and evaluating the performance of all export sales activities…
(Please tick one box)

Is Difficult	1	2	3	4	5	6	7	*Is Easy*

3. When you entered your last export venture, you possibly invested in it in several ways.
(e.g. investments in training, skill development, physical facilities and marketing, so on):

If we were to withdraw from this venture completely:	Strongly Disagree			utral			Strongly Agree
We would lose a lot of investment made in the venture	1	2	3	4	5	6	7
It would be impossible to recoup the investment made in this venture	1	2	3	4	5	6	7
The resources invested in it could not be rechanneled to other projects	1	2	3	4	5	6	7

4. Consider your recent venture and the product you sell there over the last 3 years. How much do you agree with the following?

	Not at all			To a Moderate Extent			To an Extreme Extent
The rate of growth in this country for this product has been very strong	1	2	3	4	5	6	7
The sales potential for this product in this country has been huge	1	2	3	4	5	6	7

5. Continue to think about the last export venture your firm entered and indicate your opinions to the following statements.

		Strongly Disagree			Neutral			Strongly Agree
The cultural factors (e.g. social and business customs, practices and norms), in this country were …	hard to understand	1	2	3	4	5	6	7
	hard to predict	1	2	3	4	5	6	7
	challenging to grasp	1	2	3	4	5	6	7

Continue to think about the last export venture your firm entered and indicate your opinions to the following statements.

In this country, we felt that …

the competition would be	Unstable	1	2	3	4	5	6	7	Stable
	Unpredictable	1	2	3	4	5	6	7	Predictable
	Difficult to forecast	1	2	3	4	5	6	7	Easy to forecast
sale volume would be	Easy to estimate	1	2	3	4	5	6	7	Hard to estimate
	Certain	1	2	3	4	5	6	7	Uncertain
	Predictable	1	2	3	4	5	6	7	Unpredictable
customers' needs and wants would be	Unstable	1	2	3	4	5	6	7	Stable
	Evolving in unpredictable way	1	2	3	4	5	6	7	Evolving in predictable way
	Hard to identify future shape	1	2	3	4	5	6	7	Easy to identify future shape
the composition of our customer base would be	Easy to predict	1	2	3	4	5	6	7	Hard to predict
	Easy to forecast	1	2	3	4	5	6	7	Hard to forecast
	Easy to profile	1	2	3	4	5	6	7	Hard to profile

When considering investing our business resources (e.g. manpower, money, physical assets, training, marketing, etc.)in this country, we felt …

the resources would be	Safe	1	2	3	4	5	6	7	Unsafe
	Protected	1	2	3	4	5	6	7	Unprotected
	Secure	1	2	3	4	5	6	7	Unsecure
thebenefits of investing were	Uncertain	1	2	3	4	5	6	7	Certain
	Unpredictable	1	2	3	4	5	6	7	Predictable
	Hard to estimate	1	2	3	4	5	6	7	Easy to estimate

In this country, over the past 3 years:…	*Strongly Disagree*			*Neutral*			*Strongly Agree*
thenature of competitive actions has changed slowly	1	2	3	4	5	6	7
theevolution ofcustomer demands and requirementshas been quick	1	2	3	4	5	6	7

In this country, over the last 3 years, we were uncertain whether …	*Strongly Disagree*			*Neutral*			*Strongly Agree*
our product/ service technology would be adopted	1	2	3	4	5	6	7
the technical specification of our offerings would be accepted	1	2	3	4	5	6	7

In this country, in the last 3 years, how certain were you about whether…	*Very Uncertain*			*Neutral*			*Very Certain*
technology adoption would follow global trends	1	2	3	4	5	6	7
technological changes would mirror global technological changes	1	2	3	4	5	6	7
technological dynamics would mimic global technological dynamics	1	2	3	4	5	6	7

6. When we were considering entering this country, we felt that:

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*'ery StronglyAgree*
1	2	3	4	5	6	7

There was a real risk that competitive action would lock us out of market opportunities for this product in this country..... ☐

In this country, competitive moveswould be key threats to our success……..……..... ☐

There would be a risk that competitive strategies would threaten the viability of this venture……..... ☐

7. Please provide your opinion on your export sales achievements in this export venture over the last financial year.

	Much Less than We Expected						*Much Higher than We Expected*
Export sales volume	1	2	3	4	5	6	7
Export sales turnover	1	2	3	4	5	6	7
Export sales share	1	2	3	4	5	6	7
Export sales growth rate	1	2	3	4	5	6	7

8. For this venture, please rate your satisfaction over the last financial year.	Strongly Satisfied			eutral			Strongly Dissatisfied
Overall venture profit	1	2	3	4	5	6	7
Venture profit goal achievement	1	2	3	4	5	6	7
Meeting the venture profit objectives	1	2	3	4	5	6	7

9. Over the last financial year, sales turnover in this export venture has…

Grown by % **OR** Declined by %

10. What country was the venture in?_____ **11.** What year did you enter this product market?_____

12. Was this mainly a (tick one option): product ☐ service ☐ product& service ☐

13. How would you describe this product or service (its class or type)?.....

14. Is this the first time your firm tried to enter this country with this product? **Yes** **No**

SECTION V: COMPANY PROFILE

1. In which industry does your company operate? .....

2. Approximately how long has your company been in business? ..... (Years) **OR** Since

3. Approximately how long has your company been exporting? ..... (Years) **OR** Since

4. Approximately how many full-time staff does your company employ on the home-country wage book? .....

5. How many different products has your company produced over the past 3 years? (please insert number) .....

6. Of this number, approximately how many are directly involved in the company's export activities? .....

7. Does your company have a separate formal export department? (Please tick one) ☐ **No** ☐ **Yes**

8. On average over the past 3 years,approximately what percentage of your company's export sales was generated by …

Physical products	%
Services	%
Total	100%

9. On average over the past 3 years, approximately what percentage of your company's export sales was directlygenerated by…

Business to Consumer sales	%
Business to Business sales	%
Total	100%

10. What is the percentage of your company's exports to each region of the world? *(Please note that the sum should be 100%)*

EU	%	Eastern Europe	%	North America	%
Mainland China	%	Other Asian Countries	%	South & Central America	%
Middle East	%	Australia/ New Zealand	%	Africa	%
				Total	100%

Over the last financial year…

11. Approximately what percentage of your company's total sales turnover was generated by exports? ____ %

12. Approximately how many countries did your company export to? ____

13. Approximately what percentage of total sales turnover was spent on R&D? ____ %

14. Approximately what percentage of your annual total profit was derived from exports? ____ %

15. Does your company directly export?(**Note**: Direct exporting is when your company handles its own exports) ☐ **Yes** ☐ **No**

16. If yes, approximately what percentage of sales volume does your company earn from direct exporting? ____ **%**

17. Compared with the size of your export competitors, your company is best described as...(Circle one of the following)

Very Small Player	Small Player	About Average Player	Large Player	Very Large Player
1	2	3	4	5

18. Consider the entire range of products your company exports. Overall, these products are:

Not at all culture specific	***1 2 3 4 5 6 7***	Highly culture-specific

19. Overall in our industry (circle the appropriate number in each row):

Companies' R&D expenditure is	*Extremely low*	***1 2 3 4 5 6 7***	*Extremely high*
The extent of price competition is		***1 2 3 4 5 6 7***	

20. Indicate your extent of agreement with the following sentences by circling a number in each row

	Strongly Disagree			*Neutral*			*Strongly Agree*
In this industry, technology has changed rapidly over the last 3 years	1	2	3	4	5	6	7
In this industry, technology advancements occurred at a fast pace during the last 3 years	1	2	3	4	5	6	7
The industry sector in which our company operates is technology intensive	1	2	3	4	5	6	7

SECTION VI: ABOUT YOUR EXPORT OPERATIONS

1. Please indicate the extent to which your firm has displayed real competency on the following fronts over the past 3 years(circle a number in each row).

	Capability Poorly Developed						*Capability Highly Developed*
Turning an understanding of export customers' needs into a strategy for competitive advantage	1	2	3	4	5	6	7
Ensuring that business objectives are driven primarily by export customer satisfaction	1	2	3	4	5	6	7
Creating export customer value	1	2	3	4	5	6	7
Responding to changes in foreign customers' product or service needs	1	2	3	4	5	6	7

2. The following questions are about your export function in your company. (Insert a number in each box)

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very Strongly Agree*
1	2	3	4	5	6	7

In this company over the past 3 years:

Export employees were their own boss in most matters.....

Export employees could make their own decisions without checking with anybody else .....

How things were done was left up to the export employee doing the work .....

Over the past 3 years, when it came to export decision making in this company:

Even small matters had to be referred to someone higher up for a final answer .....

Export employees had to ask their boss before they do almost anything .....

Export employees needed to have the boss's approval first.....

Over the past 3 years, employees who were involved with exporting in our company generally:

Found it easy to talk with virtually anyone they need to, regardless of rank or position .....

Had ample opportunity for informal "hall talk" among individuals from different departments.....

Felt comfortable calling employees from different departments when the need arises .....

Were quite accessible to those from other departments .....

Found that junior managers from one department can easily schedule meetings with junior managers in other departments .....

In this company over the past 3 years:

Our management encouraged training that helped employees become better export customer oriented.....

New employees were told that serving export customers is an extremely important priority.....

New employees learnt the importance of finding out what our export customers need.....

3. Please use the scale below to indicate the degree to which each sentence describes the way your company has been doing business over the past 3 years.

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very Strongly Agree*
1	2	3	4	5	6	7

Overall, across our export markets, INSTITUTIONAL FACTORS such as court systems, political instability, widespread corruption, crime and theft, and other 'country' factors:

Made doing business in our export markets difficult .....

Acted as major barriers to doing business effectively in our export markets .....

Created hurdles for exporters operating in those markets .....

4. The following questions refer to your main export competitors' activities over the past 3 years.

Overall, our main export competitors: (circle the appropriate number in each row)

Demonstrated strong customer commitment	*Very strongly disagree*	1	2	3	4	5	6	7	*Very strongly agree*
Created customer value	*Very strongly disagree*	1	2	3	4	5	6	7	*Very strongly agree*
Understood customer needs	*Very strongly disagree*	1	2	3	4	5	6	7	*Very strongly agree*
Measured customer satisfaction	*Very strongly disagree*	1	2	3	4	5	6	7	*Very strongly agree*
Providedgood after-sales service	*Very strongly disagree*	1	2	3	4	5	6	7	*Very strongly agree*

5. **Over the past 3 years, roughly how much of your firm's total export marketing operations (i.e. sales, advertising, distribution, pricing, etc) were performed directly by:**

(Please notice that the sum should be 100%)

People operating from the domestic office (and not traveling overseas)	%
People operating fromyour foreign offices and subsidiaries	%
Other company employees (salaried sales reps) operating in your foreign markets	%
Foreign sales agents	%
Foreign importers and distributors	%
Collaborations (e.g. a Joint Venture, piggy backing, commercial franchising, or licensing)	%
Total	100 %

6. **Please indicate the extent to which the following statements represent the actual situation in your company, over the past 3 years**

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an Extreme Extent*
1	2	3	4	5	6	7

In our export operations...

Export personnel have behaved autonomously	
Export personnel were self-directed in pursuit of export opportunities	
Export personnel have acted independently to carry out their ideas through to completion	
Management have approved of independent activities by export personnel to develop new export opportunities	
We sought to exploit anticipated changes in our export ventures ahead of our rivals	
We seized initiatives whenever possible in our export venture operations	
We acted opportunistically to shape the export environment in which we operate	
We have consistently tried to position ourselves to meet emerging export venture demands	

Compared to our key competitors, over the last 3 years…

Our company has produced more new products/services for our export ventures	
On average, each year we have introduced more new products /services in our export ventures	
Industry experts would say that we are more prolific when it comes to introducing new products/services	

7. **Please circle the numbers that best reflect your degree of agreement with the following statements.**

In our export operations, over the past 3 years …	*Strongly Agree*		*Neutral*				*Strongly Disagree*
Our top export managerstended to invest in high-risk export projects	1	2	3	4	5	6	7
Our company has shown a great deal of tolerance for high risk export projects	1	2	3	4	5	6	7
Our export strategy wascharacterized by a strong tendency to take risks	1	2	3	4	5	6	7
Taking chances has been part of our export business strategy	1	2	3	4	5	6	7

8. **Please indicate the degree to which each sentence below describes the way your company has been doing business <u>over the past 3 years</u>.**

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an extreme extent*
1	2	3	4	5	6	7

We challenged export competitors to achieve competitive goals	
We have adopted an "undo-the-competitor" posture in our export markets	
We took hostile steps to achieve export competitive goals	
We tended to target our export competitors' weaknesses	
Our actions towards export competitors could be termed as aggressive	
We have been avoiding conflict with our competitors to bypass the opposition	
We have been hiding our actions from our competitors to undermine their position	
We used evasive tactics to undermine our competitors	
We operated in a way that forced our competitors to behave differently	
Our competitors have changed their behavior due to our actions	
Without our intervention competitors would have developed different strategies	
Our actions have determined the structure of our industry value chain	
We have changed the composition of and the roles in our industry value chain	
Our behavior has reshaped our industry value chain by changing its members and/or making them do different things	
We have eliminated players (e.g. channel members, competitors, suppliers) in the industry value chain	
Our actions have forced members of our industry value chain (e.g. channel members, competitors, suppliers) out of business	

9. **Remembering our assurance of confidentiality, over the last financial year…**

- Approximately what was the annual sales turnover of your company? £ million
- Approximately what was your firm's average total profit (before tax) as a percentage of sales? %

10. **Relative to our main export competitors, the products and services that we offered in our export ventures over the <u>last 3 years</u> were …**

	Less than Competitors			*The Same*			*More than Competitors*
Revolutionary	1	2	3	4	5	6	7
Inventive	1	2	3	4	5	6	7
Novel	1	2	3	4	5	6	7
Creative	1	2	3	4	5	6	7
Radical	1	2	3	4	5	6	7

11. Over the past 3 years in our export operations, our competitive advantage came from our: (Circle the appropriate number)

Cost base	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*
Cost efficiencies	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*
Product differentiation	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*
Product uniqueness	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*
Distribution capability	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*
Distribution network	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*
Brand reputation	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*
Strong brands	*Very strongly disagree*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	*Very strongly agree*

12. The following questions refer to your company's export unit and its access to finance. (Insert a number in each box)

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an Extreme Extent*
1	2	3	4	5	6	7

In this company, over the past 3 years:

Export managers were satisfied with the financial capital available to them for export operations .....

The export unit had easy access to financial capital to support its export operations .....

Our export operations were better financed than our key competitors' operations .....

If we needed more financial assistance for our export operations, we could easily get it .....

Financial constraints impeded our export activities.....

We did not have substantial financial resources at the discretion of export managers for funding export initiatives .....

We were not able to obtain financial resources at short notice to support export operations .....

Our export unit did not have financial resources that could quickly be used to fund new export operations .....

13. The following questions refer to your company's export unit and its other departments. (Insert a number in each box)

Not at all	*To a Very Slight Extent*	*To a Small Extent*	*To a Moderate Extent*	*To a Considerable Extent*	*To a Great Extent*	*To an Extreme Extent*
1	2	3	4	5	6	7

Over the past 3 years:

There was rivalry between employees in the export unit and those in other functional areas (e.g. R&D or production).....

When export people worked in a team with other departments it usually ended with disagreement.....

There was 'interdepartmental' conflict between export and other business units.....

Disagreements between the exporting unit and other departments were common.....

Our export activities were disrupted by the behaviour of managers from other departments (e.g. finance, manufacturing).....

In our company, it was considered that the less interaction export personnel had with other functional areas the better.....

There were tensions among functional areas (e.g. export personnel and manufacturing) that interfered with our export activities.....

14.In our export markets: (Circle the appropriate number in each row)

Over the past 3 years, our managers have built relationships with people in the 'Political Institutions' (e.g. with national and local governments, regulatory and funding bodies, boards, banks, tax services):

Many	1	2	3	4	5	6	7	*A few*
Numerous	1	2	3	4	5	6	7	*Limited*

Over the past 3 years, our relationships with these 'Political Institutions' (e.g. Governments, Regulatory Bodies, Ministries, Banks, City Councils) were:

Shallow	1	2	3	4	5	6	7	*Deep*
Distant	1	2	3	4	5	6	7	*Close*

Over the past 3 years, we interacted with our contacts in 'Political Institutions' (e.g. Governments, Regulatory Bodies, Ministries, Banks, City Councils):

Frequently	1	2	3	4	5	6	7	*Rarely*
Often	1	2	3	4	5	6	7	*Seldom*

Over the past 3 years, our managers have built relationships with people in 'Businesses' (e.g. local businesses, local managers):

A few	1	2	3	4	5	6	7	*Many*
Limited	1	2	3	4	5	6	7	*Numerous*

Over the past 3 years, our relationships with these 'Businesses' (e.g. local businesses, local managers) are:

Deep	1	2	3	4	5	6	7	*Shallow*
Close	1	2	3	4	5	6	7	*Distant*

Over the past 3 years, we interacted with our contacts in 'Businesses' (e.g. local businesses, local managers):

Rarely	1	2	3	4	5	6	7	*Frequently*
Seldom	1	2	3	4	5	6	7	*Often*

Over the past 3 years, our managers have built relationships with people in the 'Local Communities' (e.g. Newspaper editors/Reporters, Opinion Leaders, Sponsors, local sports clubs):

Many	1	2	3	4	5	6	7	*A few*
Numerous	1	2	3	4	5	6	7	*Limited*

Over the past 3 years, our relationships with these 'Local Communities' (e.g. Newspaper editors / Reporters, Opinion Leaders, Sponsors, local sports clubs) were:

Shallow	1	2	3	4	5	6	7	*Deep*
Distant	1	2	3	4	5	6	7	*Close*

Over the past 3 years, we interacted with our contacts in 'Local Communities' (e.g. Newspaper editors / Reporters, Opinion Leaders, Sponsors, local sports clubs):

Frequently	1	2	3	4	5	6	7	*Rarely*
Often	1	2	3	4	5	6	7	*Seldom*

15. Please indicate your company's overall performance(at home and abroad) over the past financial year on each of the factors listed below.(Tick a box in each row)

	Well Below Expectations	*Below Expectations*	*Met Expectations*	*Exceeded Expectations*	*Far Exceeded Expectations*
Return on Investment (ROI)…….....….	☐	☐	☐	☐	☐
Return on Sales (ROS)…..……	☐	☐	☐	☐	☐
Return on Assets (ROA).....	☐	☐	☐	☐	☐
Profit Margin .....……..……	☐	☐	☐	☐	☐

16.Over the past financial year, your company's performance (at home and abroad) relative to the industry average was...

Much less profitable	1	2	3	4	5	6	7	Much more profitable

17. Please indicate how well your company has performed (at home and abroad) over the past financial year, relative to your expectations, on each of the factors listed below. (Circle a number in each row)

Achieving customer satisfaction	*Much worse that expected*	1	2	3	4	5	6	7	*Much better than expected*
Providing value for customers	*Much worse that expected*	1	2	3	4	5	6	7	*Much better than expected*
Keeping current customers	*Much worse that expected*	1	2	3	4	5	6	7	*Much better than expected*
Attracting new customers	*Much worse that expected*	1	2	3	4	5	6	7	*Much better than expected*
Attaining desired growth	*Much worse that expected*	1	2	3	4	5	6	7	*Much better than expected*
Securing desired market share	*Much worse that expected*	1	2	3	4	5	6	7	*Much better than expected*

18. Over the past financial year, across the firm's entire export operations, how satisfied are you with…

	Very Strongly Satisfied	*Strongly Satisfied*	*Satisfied*	*Neutral*	*Dissatisfied*	*Strongly Dissatisfied*	*Very Strongly Dissatisfied*
Export sales volume……	☐	☐	☐	☐	☐	☐	☐
Export sales turnover…...	☐	☐	☐	☐	☐	☐	☐
Export market share……..	☐	☐	☐	☐	☐	☐	☐
Rate of new market entry..	☐	☐	☐	☐	☐	☐	☐
Export sales growth rate...	☐	☐	☐	☐	☐	☐	☐

SECTION VII: SOCIETY & THE ENVIRONMENT

Consider your firm's engagement withcharities and philanthropic activity, and your environmental sustainability and impact: focus on those actions (at least partially) beyond the firm's economic interests.

1. Over the past 3 years: (Insert a number in each box)

Very Strongly Disagree	*Strongly Disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly Agree*	*Very Strongly Agree*
1	2	3	4	5	6	7

Our company has engaged in charitable and social philanthropic activity extensively..... ☐

Our company has invested in charitable and social philanthropic activity a great deal..... ☐

Charitable and social philanthropic activity was a major part of our business activity..... ☐

Our company has been actively implementing charitable and social philanthropic activities..... ☐

Environmental responsibility issues have played a minor role in shaping our firm's behavior ..... ☐

Environmental issues have had minimal impact on our business's activity ..... ☐

Over the past 3 years, our firm's engagement with charities and philanthropic activity was mainly: (Circle a number in each row)

Domestic	***1***	***2***	***3***	***4***	***5***	***6***	***7***	Overseas
At home	***1***	***2***	***3***	***4***	***5***	***6***	***7***	In our export countries
Local	**1**	**2**	**3**	**4**	**5**	**6**	**7**	Global

Over the past 3 years, our firm's environmental sustainability activity was mostly focused: (Circle a number in each row)

Overseas	***1***	***2***	***3***	***4***	***5***	***6***	***7***	Domestically
In our export countries	***1***	***2***	***3***	***4***	***5***	***6***	***7***	At home
Globally	**1**	**2**	**3**	**4**	**5**	**6**	**7**	Locally

2. How has your firm performed on the following issues over the past financial year: (Circle a number in each row)

	Performed much worse than expected			*Performed as expected*			*Performed much better than expected*
Our legal obligations concerning environmental sustainability issues	1	2	3	4	5	6	7
Complying with legal regulations with respect to environmental sustainability issues	1	2	3	4	5	6	7
Transparency of reporting on environmental sustainability issues	1	2	3	4	5	6	7
Choosing renewable, recyclable options where possible	1	2	3	4	5	6	7
Reducing the environmental impact of our business activities (e.g. waste recycling, energy use, and pollution)	1	2	3	4	5	6	7
Community-based corporate citizenship behaviors (e.g. donations, sponsorship, and community outreach)	1	2	3	4	5	6	7
Employee-based corporate citizenship behaviors (e.g. low employee turnover, training hours, and health and safety record)	1	2	3	4	5	6	7
Supply-based corporate citizenship behaviors (e.g. sourcing, vendor standards, and partner selection)	1	2	3	4	5	6	7

SECTION VIII: ABOUT YOURSELF

➢ **The next set of questions seeks to learn a little bit about you.**

1. What is your job title?_____

2. What would you consider to be your employment role? (please tick the appropriate box)

Owner/CEO/Managing Director	☐	Senior Manager	☐	Other (please specify):
Middle Manager	☐	Junior Manager	☐	

3. How long have you been within your current role? ..... ☐

4. Are you a person with responsibility for export decision making? (Please tick one) ☐ **Yes** ☐ **No**

5. How long have you been with your company?..... ☐

6. **Please indicate your agreement with the following statements.**

	Strongly Disagree			***Neutral***			***Strongly Agree***
This questionnaire deals with issues I am knowledgeable about	1	2	3	4	5	6	7
My answers to the questions in the questionnaire are accurate	1	2	3	4	5	6	7
I am competent to answer the above questions	1	2	3	4	5	6	7
I am confident that my answers reflect the company's situation	1	2	3	4	5	6	7

THIS CONCLUDES THE QUESTIONNAIRE!

Thank you very much for your time and valuable contribution to the study.

To receive a copy of the final report of the study, please enter your mail or e-mail address below*:

_____ **(please use** BLOCK CAPITALS)

***Alternatively, please feel free to request a report via email from N.Yazdani@lboro.ac.uk orE.Tsougkou@lboro.ac.uk**

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Survey wave:	*P / M*	*1 / 2*
Survey code:		
Questionnaire sent:		*__/ __/ 201_*
Questionnaire received:		*__/ __/ 201_*

Appendix 5.1 A full list of scale item descriptions and item codes

Item code	Scale item
UTEC1	It has been difficult to predict the future direction of technological changes in this industry
UTEC2	In the industry that we are doing business in, the trajectory of technology advances has been unpredictabl
UTEC3	The shape of future technology in this industry has been uncertain
UTEC4	Technological developments in our industry have been unpredictable
UCUL1	Cultural factors (e.g. customs, practices, and norms) have been hard to predict in our export ventures
UCUL2	We have experienced uncertainty about the cultures in our export ventures
UCUL3	We have been uncertain when it comes to understanding the cultures of our export ventures
UDEM1	Sales volumes in our export ventures have been easy to predict
UDEM2	There has been little uncertainty in our estimates of our future sales volumes in our export ventures
UDEM3	We have been certain when it has come to forecasting our sales figures in our export operations
UINV1	We have felt uncertain when making decisions about whether to invest in our export ventures
UINV2	Predicting what would happen to investments in our export ventures was difficult
UINV3	We felt that investing in resources in the countries of our export ventures could be quite risky
PFPROF1	All things considered, we did well to achieve last year's export profit level
PFPROF2	Overall, our profit margin last year was
PFPROF3	How satisfied are you with your export profit for last year?
PFPROF4	In terms of our export profit objectives, last year's performance was
SALVOLS	Export sales volume
SALTURNS	Export sales turnover
MSHARES	Export market share
NMENTRYS	Rate of new market entry
SALGROWS	Export sales growth rate
EMC1	Turning an understanding of export customers' needs into a strategy for competitive advantage
EMC2	Ensuring that business objectives are driven primarily by export customer satisfaction
EMC3	Creating export customer value
EMC4	Responding to changes in foreign customers' product or service needs
TCE-MS1	What percentage of marketing do you control in your export operations?
TCE-MS2	What percentage of marketing are you actively doing yourself in your export countries?
TCE-MS3	What percentage of marketing activities across all your ventures does your firm take responsibility for?
UPART1	Allow their self-interests to override the joint interests of our collaboration
UPART2	Try to behave opportunistically
UPART3	Try to take advantage of the relationship
INVIRR1	We would lose a lot of investment made in these ventures
INVIRR2	It would be impossible to recoup the investment made in these ventures
INVIRR3	The resources invested in them could not be rechanneled to other projects

Appendix 5.2 Trace of item performance as a result of different assessments

Item / Test	EFA1	Inter-item	Item-total	α	EFA2	Inter-item	Item-total	α	CFA1	AVE	CR	CFA2	AVE	CR
UDEM3				0.6				0.687		0.476				
UDEM2														
UDEM1														
UINV3								0.551					NA*	NA
UINV2														
UINV1														
TCE-MS3								0.662		0.421	0.677		NA	NA
TCE-MS2														
TCE-MS1														
EMC4														
EMC3														
EMC2														
EMC1														
SALVOLS														
SALTURNS														
MNTRY														
SALESGROW														
MSHARES														
INVIRR3														
INVIRR2										0.28	0.43		NA	NA
INVIRR1														
UCUL3														
UCUL2														
UCUL1														
PROF4														
PROF3														
PROF2														
PROF1														

Item / Test	EFA1	Inter-item	Item-total	α	EFA2	Inter-item	Item-total	α	CFA1	AVE	CR	CFA2	AVE	CR
UTEC4														
UTEC3														
UTEC2														
UTEC1														

Note: Above items did not meet one or more of the criteria considered for each assessment: EFA factor loading>0.4; inter-item statistics >0.3~ (0.15-0.5); item-total statistics > 0.35 ~ (0.35-0.5); Alpha reliability >0.7; NA: Not Applicable as the construct is single item

Table legend

The value is very close to the threshold, and is marginally accepted	
The value is above the threshold, EFA and item-based analysis	
The item is removed as a result of the CFA	
The value is calculated for the construct and is not in the acceptable range	
The value is in an acceptable range	

Appendix 5.3 Regression analysis for profit performance with a single item sale performance (SALVOLS)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.155	.175		12.307	.000		
	SALVOL	.255	.040	.371	6.292	.000	1.000	1.000
2	(Constant)	2.161	.194		11.133	.000		
	SALVOL	.258	.040	.376	6.381	.000	.994	1.006
	DOI	.470	.323	.105	1.653	.081	.662	1.510
	DOJI	-.920	.513	-.169	-1.794	.064	.387	2.584
	DONI	.067	.394	.014	.171	.864	.523	1.911

a. Dependent Variable: PROF_SAT

Appendix 6.1 Collinearity Statistics

TCE-mode: Degree of Internalisation

	Tolerance	VIF
Firm export scope	.885	1.130
Firm size	.942	1.061
Firm export experience	.925	1.081
TCE- mind set	.944	1.059
Investment irreversibility	.907	1.103
Technological Uncertainty	.832	1.202
Cultural Uncertainty	.851	1.175
Demand Uncertainty	.864	1.158
Partner Uncertainty	.935	1.070
Behavioural Uncertainty	.859	1.164
Investment Uncertainty	.812	1.231
R&D Expenditure	.831	1.203
Export Marketing Capability	.807	1.239

RO-model1: Degree of Joint-Investment

	Tolerance	VIF
Firm export scope	.898	1.114
Firm size	.884	1.132
Firm export experience	.872	1.146
TCE- mind set	.947	1.056
Partner Uncertainty	.934	1.071
Behavioural Uncertainty	.861	1.161
R&D Expenditure	.823	1.216
Export Marketing Capability	.806	1.240
Cultural Uncertainty	.840	1.191
Technological Uncertainty	.833	1.201
Investment Uncertainty	.806	1.241
Demand Uncertainty	.863	1.158
Investment irreversibility	.907	1.103

RO- model2: Degree of No-Investment

	Tolerance	VIF
Firm export scope	.898	1.114
Firm size	.884	1.132
Firm export experience	.872	1.146
TCE- mind set	.947	1.056
Partner Uncertainty	.934	1.071
Behavioural Uncertainty	.861	1.161
R&D Expenditure	.823	1.216
Export Marketing Capability	.806	1.240
Cultural Uncertainty	.840	1.191
Technological Uncertainty	.833	1.201
Investment Uncertainty	.806	1.241
Demand Uncertainty	.863	1.158
Investment irreversibility	.907	1.103

RO-post hoc model1: Degree of Joint-Investment

	Tolerance	VIF
Firm export scope	.967	1.034
Firm size	.911	1.098
Firm export experience	.903	1.107
Degree of Endogeneity	.972	1.029
Investment Irreversibility	.995	1.005

RO-post hoc model2: Degree of No-Investment

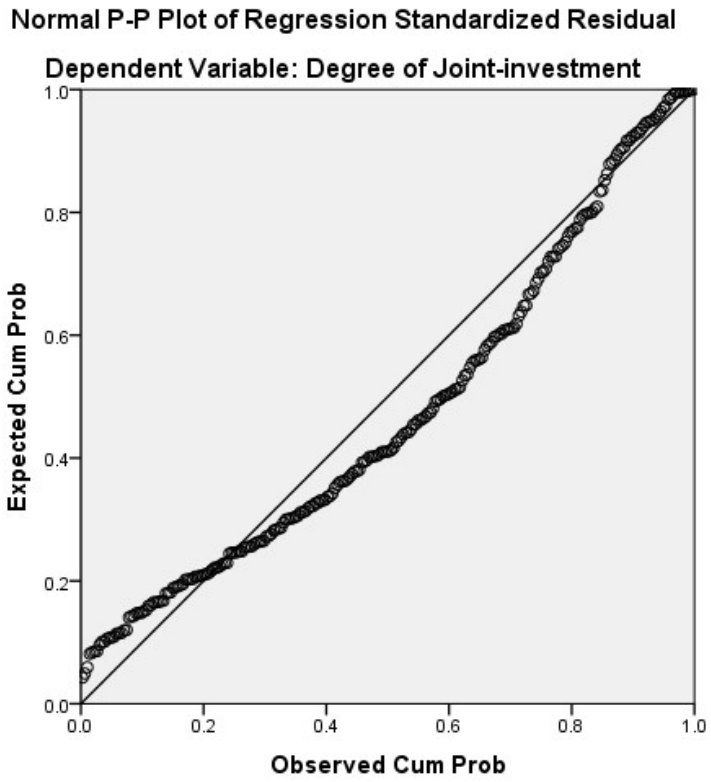
	Tolerance	VIF
Firm export scope	.967	1.034
Firm size	.911	1.098
Firm export experience	.903	1.107
Degree of Endogeneity	.972	1.029
Investment Irreversibility	.995	1.005

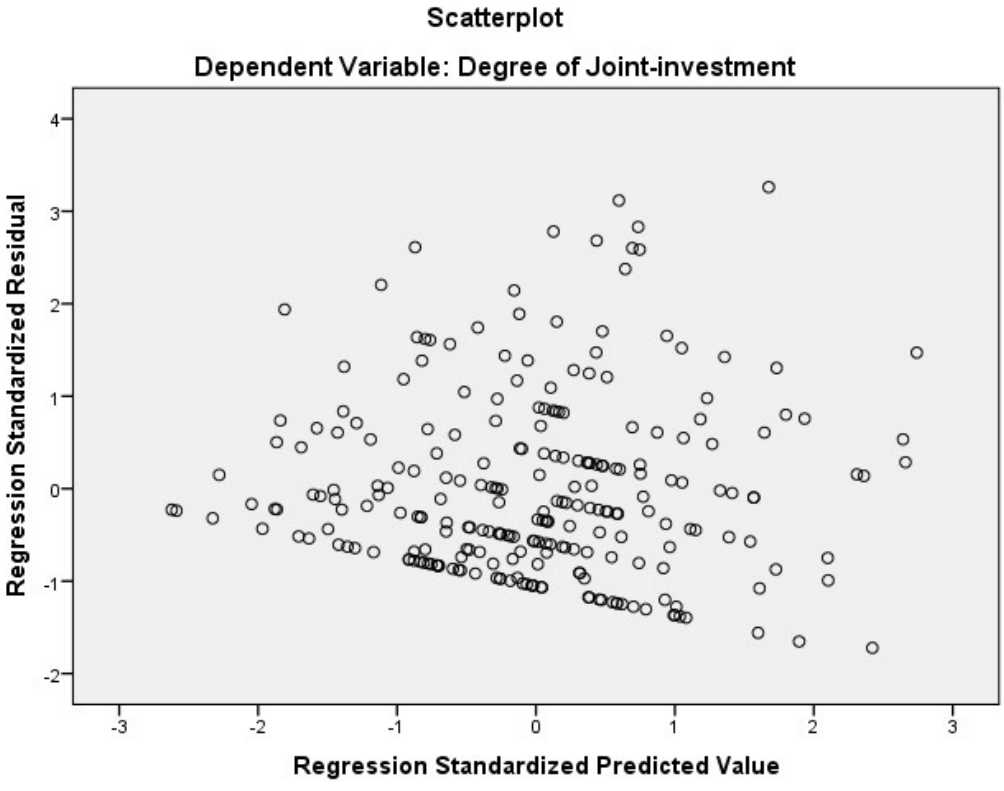
Profit performance fit model

	Tolerance	VIF
Sales Performance	.993	1.007
TCE misalignment (DOI)	.659	1.517
RO misalignment (DOJI)	.387	2.585
RO misalignment (DONI)	.525	1.905

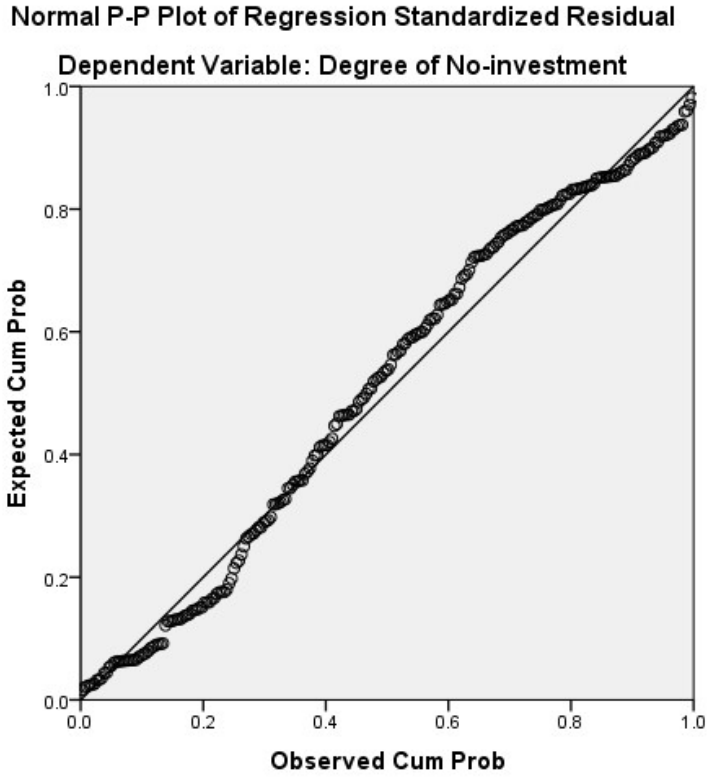
Appendix 6.2 Scatter Plot and Normal P-P Plot

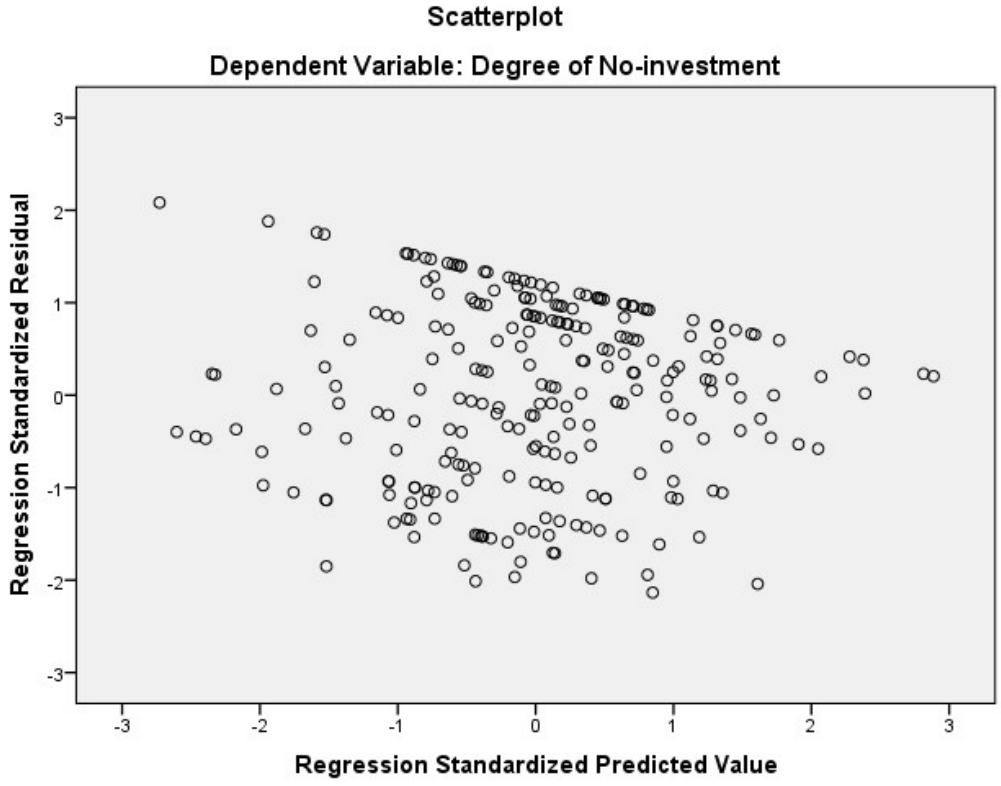
RO-model1

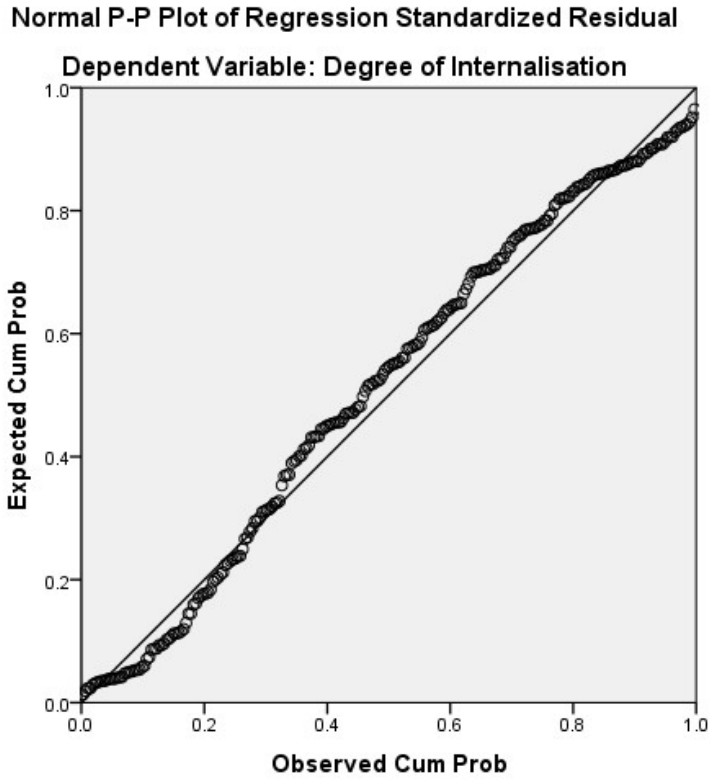


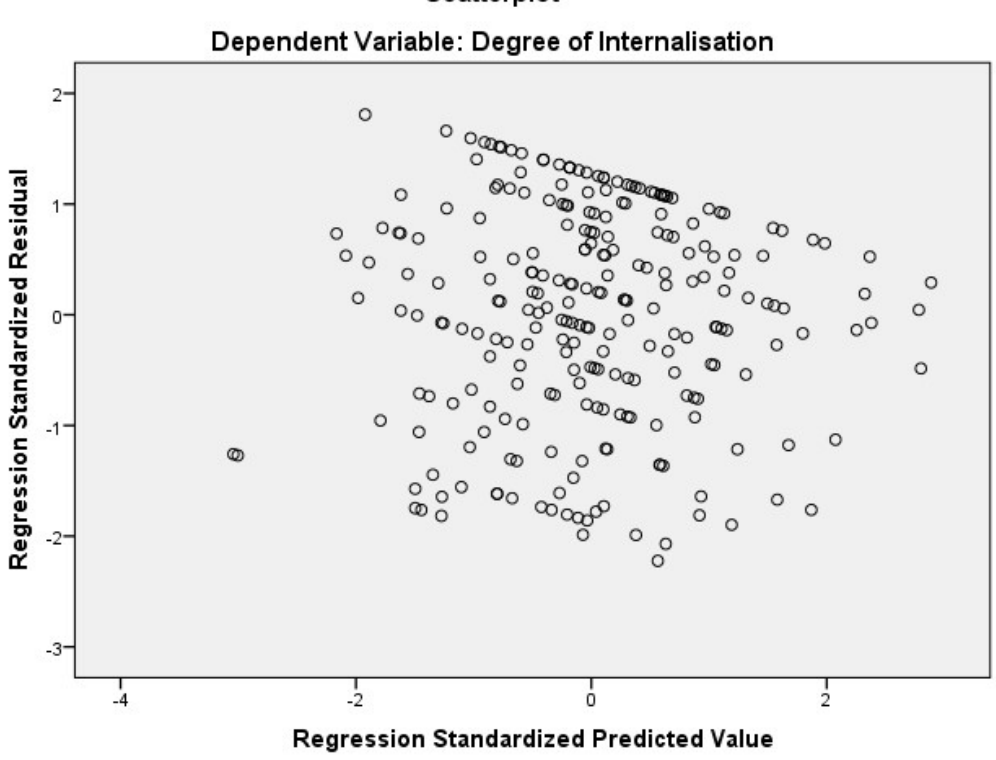


RO-model 2


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Degree of No-investment
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Degree of No-investment
Regression Standardized Residual
Regression Standardized Predicted Value
-3
-2
-1
0
1
2
3


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Degree of Internalisation
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Degree of Internalisation
Regression Standardized Residual
Regression Standardized Predicted Value
2
1
0
-1
-2
-3
-4
-2
0
2

Profit performance fit model