Pratik Arte

An investigation into the impact of cross-national distance on foreign divestment

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Julkaisun nimike
Tutkimus valtioiden välisen etäisyyden vaikutuksista ulkomaisista investoinneista luopumiseen

Tiivistelmä
Tutkimuksessa tarkastellaan (1) taloudellisen ja (2) institutionaalisen etäisyyden vaikutusta ulkomaisista investoinneista luopumiseen. Oletuksena on, että kansantalouden ja tekijäkustannusten eroista johtuva taloudellinen etäisyys mahdollistaa markkinoiden hintaerojen hyödyntämisen ja näin vähentää investoinneista luopumisen todennäköisyyttä. Oletetaan myös, että institutionaalisella etäisyydellä on U-muotoinen suhde investoinneista luopumiseen. Heikkojen instituutioiden hyväksikäyttöön liittyvät taloudelliset hyödyt vähentävät lyhyellä etäisyydellä luopumisen todennäköisyyttä, mutta etäisyyden pidentyessä toiminnasta aiheutuvat kustannuksetkin kasvavat. Tutkimuksessa tarkastellaan omistusetujen ja investointistrategioiden välillistä vaikutusta etäisyyden ja investoinnista luopumisen suhteeseen. Omistusetujen, kuten aiempi kokemus kohdemaasta, painotus tutkimukseen ja kehitykseen ja taloudellinen menestys, välillisen vaikutuksen odotetaan olevan negatiivinen. Investointistrategioilta, eli investointimuoto (yritysosto) ja omistusmuoto (osittain omistettu investointi), odotetaan positiivista välillistä vaikutusta.
Työn empiirinen aineisto on 906 pohjoismaisten yritysten BRIC-maissa vuosina 1990-2015 tekemää ulkomaista investointia, joista 191:stä oli luovuttu. Tutkimusmenetelmänä käytettiin Coxin regressiomallia. Tulokset tukevat taloudellisen ja institutionaalisen etäisyyden sekä investoinneista luopumisen välisiä hypoteeseja. Kansantalouden ja kohdemaakokemuksen sekä tekijäkustannuserojen ja luopuvan yrityksen taloudellisen menestyksen välinen vuorovaikutus olivat molemmat tilastollisesti merkittäviä, samoin kuin vuorovaikutus omistusetujen ja institutionaalisen etäisyyden välillä. Investointistrategioissa taloudellisen etäisyyden ja omistusmuodon välillä vallitsi tilastollisesti merkittävä vuorovaikutus. Tutkimuksen johtopäätöksissä tiivistetään työn tärkeimmät teoreettiset ja empiiriset havainnot ja esitetään jatkotutkimusmahdollisuuksia sekä yritysjohdollisia suosituksia.

Asiasanat
Ulkomainen investoinneista luopuminen, divestointi, taloudellinen etäisyys, institutionaalinen etäisyys, omistusetu, investointistrategiat, pohjoismainen, BRIC

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An investigation into the impact of cross-national distance on foreign divestment

Abstract
This study examines the impact of the following two dimensions of cross-national distance on foreign divestment: (1) economic and (2) institutional distances. It is predicted that economic distance resulting from differences in levels of economic development (GDP per capita) and factor costs will reduce the probability of divestment, mainly due to greater opportunities for arbitrage. It is predicted that institutional distance will have a U-shaped relationship with foreign divestment. The economic gains arising from low institutional distance will initially reduce the probability of divestment. However, as the distance increases, the operating costs increase, thereby increasing the probability of divestment. The study examines the moderating roles of ownership advantages and entry strategies on the relationship between cross-national distance and foreign divestment. Ownership advantages, which include host country experience, R&D intensity and parent firm's financial performance, are predicted to have a negative moderating effect. Entry strategies, examined as establishment mode (Acquisition) and ownership mode (Joint Venture), are predicted to have a positive moderating effect.

The empirical analysis is conducted using Cox's regression on a sample of 906 Nordic foreign direct investments in the BRIC countries between 1990 and 2015, of which 191 were divested. The results indicate that foreign divestment has a negative and U-shaped relationship with economic and institutional distance, respectively. The interactions between GDP per capita differences and host country experience, and between factor cost differences and parent firm's financial performance were found to be significant, as were the interactions between the three ownership advantages and institutional distance. Among the entry strategies, the interaction between economic distance and ownership mode was found to be significant. The concluding section identifies the theoretical and empirical contributions, highlights potential research avenues and lists the key managerial and policy implications.

Keywords
Foreign divestment, economic distance, institutional distance, ownership advantages, entry strategies, Nordic, BRIC

For you

ACKNOWLEDGEMENTS

The writing of this dissertation has left me short of words, or maybe I have so much to share that the space here would not suffice. Probably I should have asked the publisher for a couple more pages! Either way, I would like to take this opportunity to thank everyone who has been involved in this process.

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A warm hug to my friends in Finland and India for being with me during these years. I think 'You' would be the most appropriate noun to acknowledge all my friends, of which there are many – I am lucky to have You. Your moral support and those umpteenth 'lighter' moments we spent together came as a lantern in a pitch dark cave. For me life without marvellous and colourful friends like You would be gloomy. I have been indulging myself in several activities including taekwondo, boxing, dancing and the love of my life, football, all which kept me from slipping into the dungeon of insanity. I thank all those whom I've met during these activities.

Finally, my parents and my family. Mom and Dad, thank you for your patience and keeping faith in me. I don't know if a few sentences or even this entire book would suffice to express my gratitude towards your efforts in overcoming the hard times and challenges to provide me with a better life. I shall always be indebted to your eternal and unconditional love. A warm hug to my family – my grandparents, uncle and aunt, and my cousins – who have embraced me with their love and care.

Pratik
Vaasa, 17 April 2018

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Abbreviations

BRIC	Brazil, Russia, India and China
CPHM	Cox's proportional hazard model
ED	Economic distance
FC	Factor cost (differentials)
FD	Foreign divestment
FDI	Foreign direct investment
FSA	Firm-specific advantage
GDP	Gross domestic product
IB	International business
IBV	Institution-based view
ID	Institutional distance
IJV/JV	International joint venture/Joint venture
LB	Location bound advantage
NIE	New Institutional Economics
NLB	Non-location bound advantage
OECD	Organisation for economic cooperation and development
OLI	Ownership, location, internalisation advantages
PCA	Principle component analysis
R&D	Research and development
RBV	Resource-based view
TCE	Transaction cost economics
UNCTAD	United Nations Conference on Trade and Development
WOS	Wholly owned subsidiary

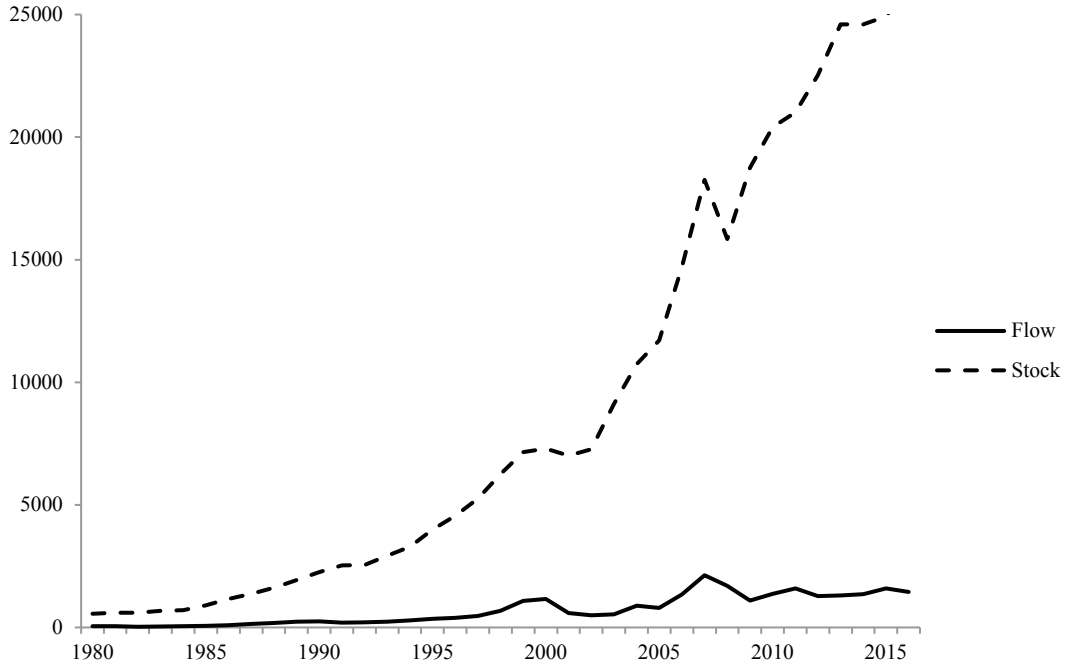
1 INTRODUCTION

1.1 Background of the study

Since the end of World War II, globalisation has been one of the most significant changes to the world economy. What we see today is a dynamic economy full of opportunities, challenges and uncertainties. Firms are internationalising at an increasingly fast pace; some even internationalise immediately after inception (Knight & Cavusgil, 2004; McDougall, et al., 1994; Oviatt & McDougall, 1994; Yli-Renko, et al., 2001). Internationalisation is considered by many as a progressive expansion of firms (Andersen, 1993; Lin, 2010); and over several decades it has been subject to scrutiny from managers and researchers alike. The benefits of operating in foreign markets are enormous and may include: global presence, large customer base, advanced technology, knowledge sharing, international networks, volume economies, intelligence gathering, product improvement, operational flexibility and tax arbitrage (Cavusgil, 1980; Fletcher, 2008; Johanson & Wiedersheim-Paul, 1975; Riahi-Belkaoui, 1998; Trakman, 2009; Turner, 2012; Welch & Luostarinen, 1988; Welch & Wiedersheim-Paul, 1980).

Many firms ranging from large-sized multinational enterprises (MNEs) to small and medium enterprises take the step of expanding their operations beyond their national borders with the motive to grow and prosper. Scholars often consider international expansion as an indicator of steady firm growth (Johanson & Vahlne, 1977). Although exporting is commonly considered as the first step towards internationalisation (Leonidou, et al., 2002), firms are increasingly using equity, alternatively known as foreign direct investment (FDI), to enter foreign markets. According to OECD (2008, p. 48), FDI is defined as *"the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor"*.

Statistics suggest that FDI has been gradually increasing over the past few decades (UNCTAD, 2015). Figure 1 demonstrates the growth of global outward FDI for the period 1980-2016. The FDI flow curve showed no significant change between 1980-87 and started rising gradually between 1989-95. This was a period of major political and economic changes across the world, especially concerning the emerging economies. For example, the phenomenal expansion of the Chinese economy post-1978 economic reforms, the economic liberalisation of India initiated in 1991, and the gradual rise of Russia as a global political and



All values in US$'000 million; Source: UNCTADStat

Figure 1. Global outward FDI trends 1980-2016

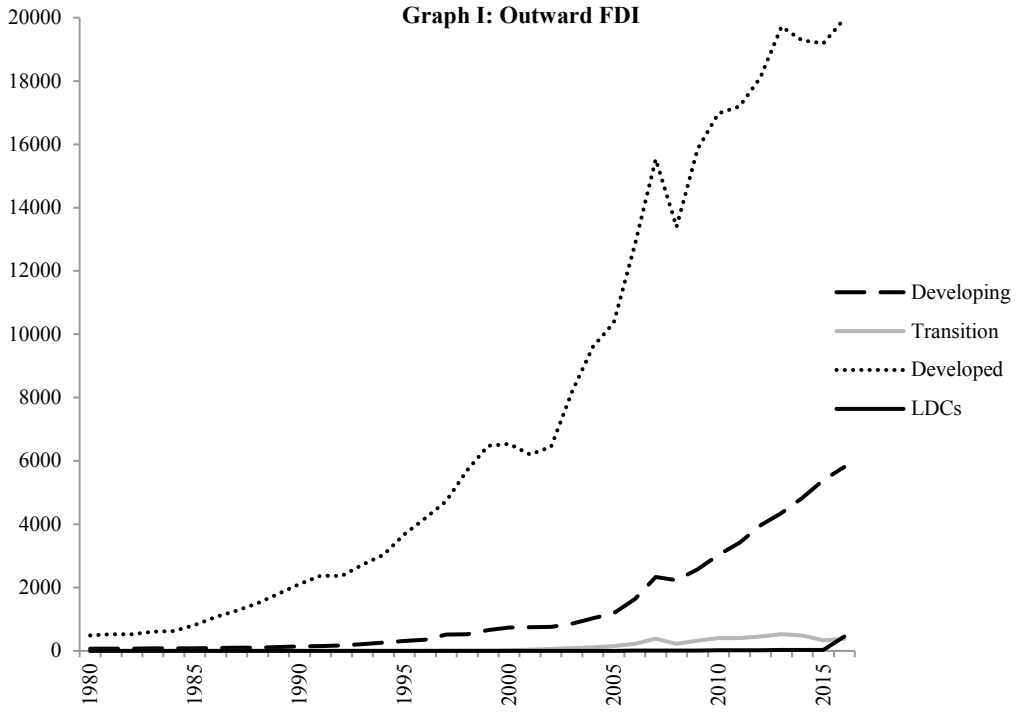
economic powerhouse after the collapse of U.S.S.R. The most significant rise, however, was between 1998-2000 and later between 2005-07. The second phase of FDI flow increase between 2005-07 was followed by a brief depression during 2008-09 due to the 2007-08 global economic crises. The FDI stock trends are similar to the FDI flow trends. Global FDI stock has been growing continuously since the 1980s with the exception of the years 2006-09. The total value of global outward FDI stock in 1980 was US$558,975 million, this increased more than four times by 1990 to US$2,253,944 million and more than thirteen times by 2000 to US$7,298,188 million.

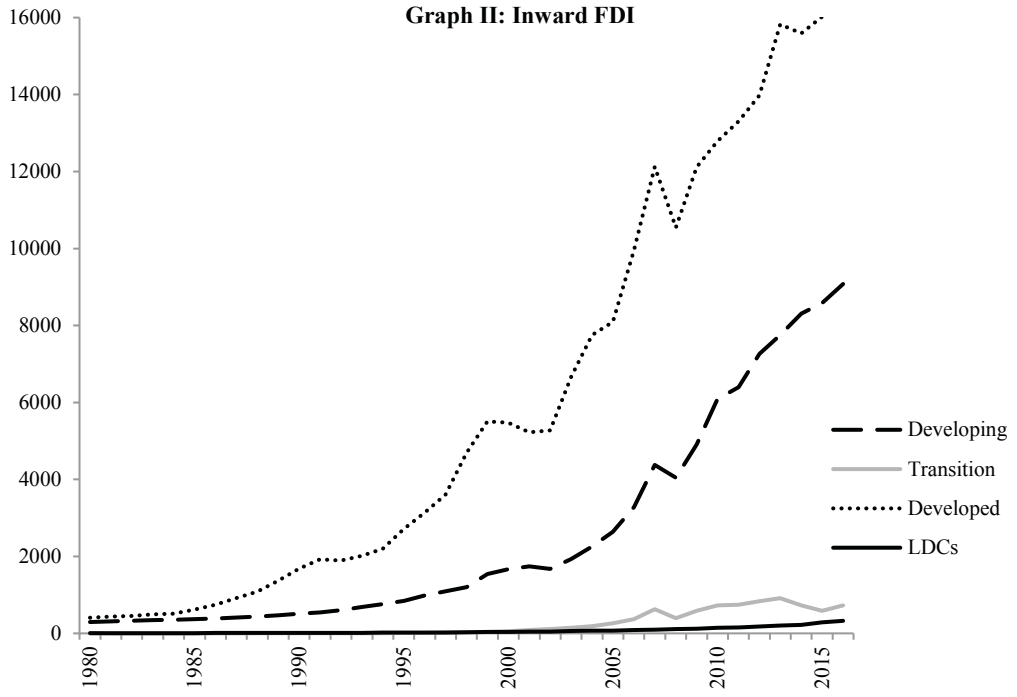
Despite its meteoric rise, the country-wise contribution to global FDI is highly disproportional. In absolute terms, it is evident that developed economies continue to dominate outward and inward FDI. Figure 2 demonstrates the FDI stock trends based on the economic classification of countries. Graph I shows that developed economies have been the major contributors to global FDI stock. The percentage contribution of developed economies to global outward FDI was 87% (US$488,206 million) in 1980 which increased to almost 94% (US$2,113,948 million) in 1990, gradually dropping to 89.5% (US$6,535,722 million) in 2000, and finally to 75% (US$19,961,557 million) in 2016.While there is an insignificant

rise in the FDI stock from transition economies and LDCs, the graph for developing economies showed a significant rise starting from the mid-1990s. Between 1980-96, the FDI from emerging economies grew from US$70,768 million to US$357,670 million. After 1996, the outward FDI grew to US$741,924 million in 2000, to US$3,033,713 million in 2010, and finally to US$5,808,568 million in 2016.

Figure 2 also suggests that majority of the outward FDI from developed economies is received by other developed economies. This is evident in the Graph II: Inward FDI stock. In 2014, more than 62% (US$15,591,435 million) of the total FDI stock was directed towards developed economies. In comparison, developing economies received 33.4% (US$8,310,055 million), followed by 3% (US$724,965 million) received by transition economies, and remaining 1% (US$221,524 million) by LDCs.

As impressive as these figures may first appear, a few questions arise from considering these data trends – ***Are all foreign investments profitable? Do all foreign subsidiaries survive?*** The answer to both these questions suggests that this often is not the case because the success and survival of FDI depends on a range of factors including: location choices, distance between the home and host countries, ownership advantages of the MNEs, arbitrage opportunities and operating costs. The distance between countries (cross-national distance) in particular is considered to have a negative impact on FDI performance and subsidiary survival. Berry (2013), for instance, argues that firms find it difficult to conduct business and oversee operations in a distant country. This, combined with the high costs associated with reversing investment decisions in uncertain environments (Dixit, 1989), intensify the importance of cross-national distance to FDI performance. The location choice of FDI is of paramount importance also because the cross-national distance between countries determines the degree of impact of arbitrage opportunities and operating costs on divestment decisions. Therefore, firms are required to carefully assess their strengths and weaknesses, and formulate a strategy that would enable them to tap the arbitrage opportunities and minimise operating costs in the most efficient manner.





All values in US$'000 million; Source: UNCTADStat

Figure 2. Global FDI stock trends 1980-2016 based on economic classification of countries

The direct and indirect effects of external environment on FDI performance can be best illustrated by the recent divestments carried out by European and other advanced economy firms. As the effects of the 2007-08 financial crisis and the ongoing Eurozone debt crisis, several European MNEs sold their operations. For example, British retail giant Tesco sold its South Korean operations for approximately US$6 billion in order to consolidate its global operations and focus on the domestic market (BBC, 2015; Reuters, 2015). Similarly, British-South African mining company Anglo American PLC divested its copper mining operations in Chile for US$2.9 billion (Bloomberg, 2017). Furthermore, the leading British-Dutch oil and gas company Royal Dutch Shell divested its shares in Brazilian gas distributor Comgás amounting to US$380 million (Shell, 2017). In addition to the economic fragility, several European firms cited geopolitical uncertainty as a major driver of divestments (Ernst & Young, 2017).

During this period MNEs from other developed economies also showed an active presence in divestment and restructuring activities. In 2015, American oil and gas company ConocoPhillips exited the Russian market after 25 years of operation. The full divestment was undertaken by the sale of its share in Polar Lights joint venture with Russian oil and gas company Rosneft. Before its merger with Phillips, Conoco was one of the earliest American companies to invest in Russia. The major reason for this divestment was the fall in global oil prices and political tensions that have hit the industry. The other reason was the shift of ConocoPhillips' strategic focus towards developed markets, particularly in North America (Financial Times, 2015; UNCTAD, 2016). Another example was Japanese pharmacy giant Daiichi Sankyo's sale of Ranbaxy Laboratories (India) to Sun Pharmaceutical Industries (India) in a deal reported to be around US$3 billion. The deal resulted in Sun Pharma becoming the fifth-largest specialty generics company in the world and the largest in India. In the year 2015 Daiichi-Sankyo announced that it would further sell its 9% share in Sun Pharmaceuticals (Daiichi-Sankyo, 2015). In the light of these recent events, there has been limited research directed towards investigating the factors (what, why, when, how, etc.) of divestment. The present study aims to broaden our understanding on foreign divestment by addressing the **'Why'** factor. To meet this aim, the following research questions and objectives have been developed.

1.2 Research questions and objectives

The purpose of this study is to analyse the determinants of foreign divestment (FD) in emerging economies. The common assumption in international business (IB)

literature suggests that differences between nations create opportunities for arbitrage (Ghemawat, 2007). A foreign market may look attractive if it offers economies of scale of some sort. However, firms should also take into consideration the fact that national differences can create obstacles and conflicts, which may lead to the divestment of operations (Hennart & Zeng, 2002). Moreover, macroeconomic factors such as external capital markets, exchange rates and institutional factors may also have a negative impact on firm performance and survival. Building on these arguments, this dissertation aims to study the divestment of Nordic (Denmark, Finland, Norway and Sweden) manufacturing subsidiaries in the BRIC countries (Brazil, Russia, India and China). There is a significant difference between the economic and institutional environments of the home countries (Nordics) and host countries (BRICs) to provide an ideal investigative research environment.

The present study strives to find an answer to the fundamental question concerning all FDI: ***Why some foreign subsidiaries survive and others do not?*** In an attempt to find an answer to this question, this study utilises New Institutional Economics (NIE) as a research approach. That is, it examines the interaction of the firm together with its economic and institutional environments and the extent to which they affect the divestment decisions. Hence, the sub-research questions of this study are:

(1) How and to what extent do economic and institutional distances impact foreign divestment?
(2) How and to what extent do ownership advantages and entry strategies moderate the impact of economic and institutional distances on foreign divestment?

The research questions have been designed in a manner that enables the author to answer them using both theoretical and empirical approaches. Therefore, the following objectives will guide the entire research which unfolds in the subsequent chapters:

I. Theoretical objectives:

(a) Critically analyse and identify research gaps within the existing literature on foreign divestment.
(b) Develop a theoretical framework to address the shortcomings of existing literature, with the focus on economic and institutional distances.

II. Empirical objectives:

(a) Test the theoretical framework using a sample of Nordic FDI in BRIC countries.

(b) Analyse the extent of the impact of economic and institutional distances on foreign divestment.

(c) Examine the moderating role of ownership advantages and entry strategies on the relationship between economic and institutional distances, and foreign divestment.

1.3 Research positioning

This study positions itself within the NIE and contributes primarily to FDI research focusing on the survival and divestment of foreign subsidiaries. NIE is a broad field of economics which has its roots in Ronald Coase's (1937) ground breaking article 'The nature of the firm'. However, the term NIE first appeared in Williamson's work in 1975 (Williamson, 1975). This field was later advanced and adapted to FDI studies by leading scholars like Buckley and Casson (1976), Dunning (1980), Hennart (1988), North (1990), Scott (1995), and Rugman and Verbeke (1992; 2005). NIE primarily concerns the behaviour of individual firms with respect to the institutional environment and transaction costs arising in the market. In divestment related studies, the transaction cost theory and institutional theory have been used to study the impact of entry mode choices and institutional environments on FD. The eclectic paradigm can also be considered as a part of the NIE as it is primarily concerned with the assets owned by the firm that it uses to exploit the locational advantages of the foreign country. These locational advantages can be economic (Dunning, 1977) or institutional in nature (Dunning & Lundan, 2008).

The research positioning of this study is presented in Figure 3. The eclectic paradigm has served as a strong theoretical framework to explain FDI and international production activities of MNEs. Its application to FD, in contrast, has been very limited. Empirical studies on FD that have used the transaction cost/internalisation theory[1], include works by Hennart et al. (1998), Lu and Hebert (2005), Makino et al. (2007), Park and Russo (1996), and Tsang and Yip (2007).The institution-based view (IBV) was first applied to analyse economic behaviour of firms and organisations by North (1990) and later by Scott (1995). The IBV is widely considered as a third leg in the strategy tripod (Peng, 2006; Peng, et al., 2008). In FD literature, the IBV has been used to explain divestment as a strategy to overcome problems arising out of organisational legitimacy in the host country and challenges presented by unfavourable institutional

[1] Scholars have argued that the internalisation theory is the transaction cost theory of the MNE (Madhok, 1997; Rugman, 1986), hence, the two terms, 'transaction cost theory' and 'internalisation theory', are used interchangeably in this study.

environments. Studies such as Chan et al. (2006), and Lu and Xu (2006) have suggested that MNEs pursue legitimacy because they require social acceptance and access to local resources in the host country. Dai et al. (2013), Dhanaraj and Beamish (2009), and Gaur and Lu (2007) have examined the impact of unfavourable institutional environment on FD.

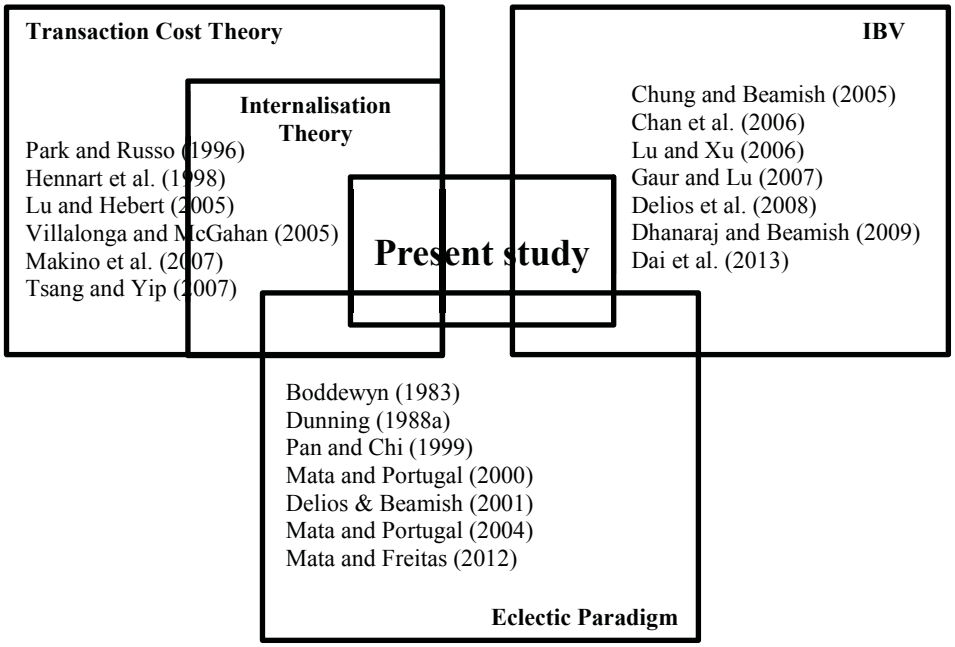


Figure 3. Theoretical positioning of the study

Conceptual studies on antecedents to FD emerged when Boddewyn (1983) proposed a reverse-theory of the eclectic paradigm. Boddewyn's work was acknowledged and advanced by Dunning (1988a), who addressed the need for a theory on FD and suggested that the eclectic paradigm can be used for the purpose. Unfortunately, Boddewyn's (1983) 'proto-theory' has received limited empirical attention. The work by Benito and Welch (1997) develops a conceptual framework to study 'de-internationalisation'. Their model is a hybrid of several management and economic theories such as strategic management, industrial organisation, transaction cost theory and eclectic paradigm. However, Benito and Welch's model cannot be adapted to analyse FD as they conceptualise de-internationalisation as *"reduction of operations, in whatever form, in a given market…"* (1997, p. 9). Therefore, it can be assumed that their framework addresses all internationalisation modes including exporting, licensing, franchising and FDI.

Empirical studies on antecedents to FD can be classified as: (1) studies examining internal factors; and (2) studies examining external factors. Internal factors are

variables specific to the firm or the decisions made by the management. These variables include entry and ownership modes (Gaur & Lu, 2007; Dhanaraj & Beamish, 2009; Shaver, 1998), firm performance and subsidiary profitability (Li, 1995; Pan & Chi, 1999), and knowledge and intangible assets (Delios & Beamish, 2001). External factors are variables specific to the country, market, or industry which include economic environment (Demirbag, et al., 2011; Tsang & Yip, 2007), institutional environment (Chung & Beamish, 2005; Dhanaraj & Beamish, 2009; Gaur & Lu, 2007), industry life cycle (Agarwal & Gort, 1996; Agarwal & Sarkar, 2002) and technological change (Agarwal, 1998; Audretsch, 1991; Audretsch & Mahmood, 1995).

1.4 Limitations of the literature and expected contributions of the study

FD is a topic of high importance and relevance to the current global economy. However, the concept of divestment *per se* has been largely misunderstood by practitioners and overlooked by researchers. This leaves a wide scope for the present study to try and contribute to the theory. The most common misunderstanding among practitioners is that divestment is a sign of failure. Practitioners are concerned with revealing the actual figures and reasons behind selling or closing foreign subsidiaries. Due to managers' reluctance to reveal confidential information regarding divestment transactions, researchers for long have faced challenges gathering primary data on this topic. This has left research with a shortage of first-hand information on divestments and related transactions.

The **first** expected contribution of this study is the advancement of the eclectic paradigm in relation to FD. From a theoretical perspective, researchers have overlooked FD mainly because there has been a lack of established theory. There is a stark contrast between the number of studies on foreign entry modes and FD. One could deduce that entry mode studies are seen in a positive light as the academic community perhaps considers FDI as a sign of growth. Several scholars have called for systematic and in-depth analysis of the phenomenon of FD. Of these, Dunning (2001) in particular expressed his dissatisfaction at the lack of a theoretical framework to study FD. He suggested that the eclectic paradigm can be a comprehensive theoretical tool to extend our understanding of FD activities and in so doing provide practitioners with a framework for analysis and decision making. Although majority of IB studies predominantly see the eclectic paradigm as a theory of MNE growth and entry mode choice (Brouthers, et al., 1996), Boddewyn (1983) proposed a framework for FD by extending the eclectic

paradigm. Therefore, the first contribution of the present study would be in attempting to test Boddewyn's framework.

The **second** expected contribution of this study is related to the modelling procedure. As shown in Figure 4, the existing FD models either: (1) examine a linear relationship between firm performance and FD; or (2) use the host country environment as a moderator in entry mode survival models; or (3) examine the moderating role of ownership advantages on the host country environment. These models have certain limitations. First, they restrict our understanding of the role of externalities such as cross-national distance in FD decision making. Second, some studies on FD have opined that divestment is a measure of MNE performance (Delios, et al., 2008; Geringer & Hebert, 1991; Sharma & Kesner, 1996). Although divestment can be considered as one measure for poor performance, supporting performance measures should be incorporated into the research to provide a holistic view of MNE growth. Finally, the importance of firm-specific advantages (alternatively ownership advantages), has been underestimated in previous models. These limitations call for new modelling procedures in which both external factors and firm-level factors are incorporated into the same model. Although a few studies have examined similar models (Gaur & Lu, 2007; Kang, et al., 2017; Pattnaik & Lee, 2014; Tsang & Yip, 2007), our understanding of MNE behaviour in distant countries can be enhanced by further empirical research.

The **third** expected contribution of this study is related to the empirical setting. The review of previous empirical studies on divestment, results of which are discussed in detail in Chapter 3, highlight the following shortcomings. First, the majority of previous studies have focused on divestments by firms from large economies such as Japan and Korea. Nordic firms, owing to their small economy can be expected to behave differently and have seldom been examined. Exceptions to this case are the works by Benito and Larimo (1995), Benito (1997), Larimo (1998; 1999), Wang (2014), and Wang and Larimo (2015a; 2015b). Second, the majority of FD literature has focused on divestments from advanced economies (for example divestment from the U.S). A few studies that have diverted their attention towards FDI in emerging and developing economies include Chung and Beamish (2005), Chung et al. (2013a; 2013b), Demirbag et al. (2011), and Lu and Hebert (2005). Finally, despite their growing importance as major economic powerhouses, divestment from BRIC economies has received very limited

attention from researchers. Therefore, this study attempts to bridge this gap by focusing on Nordic FDI in BRIC economies.

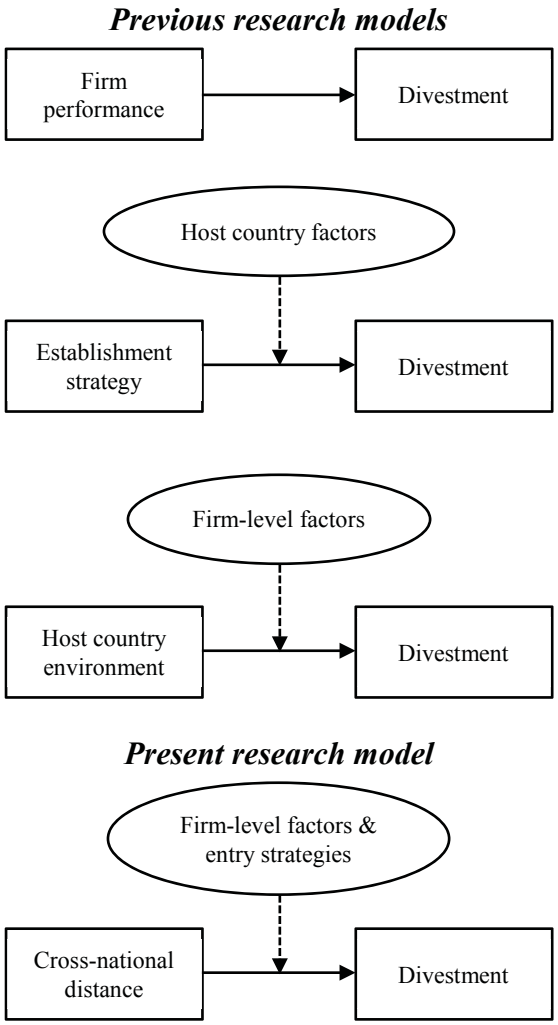


Figure 4. Comparison of research models

The **fourth** expected contribution of this study is related to the operationalisation of cross-national distance. According to Ghemawat (2001), cross-national distance can be measured along the following four dimensions of distances: (1) Cultural distance; (2) Administrative distance (alternatively institutional distance); (3) Geographic distance; and (4) Economic distance. This study is primarily concerned with examining the role of economic and institutional distances. Cultural and geographic distances are omitted from the theoretical framework for the following three reasons. First, the present study is positioned within NIE which is concerned with the institutions influencing the economic activities of the

country (Rutherford, 2001). Therefore, the present research would deviate from its objectives by integrating cultural and geographic distances. Second, the cultural dimensions theory tends to favour the analysis of human behaviour within organisations and not the behaviour of firms *per se*. Third, geographic distance is concerned with the spatial measures impacting firm behaviour, which lies beyond the scope of the present research.

Economic and institutional distances are not new concepts in economic literature. Since the time of classical economists such as Adam Smith and David Ricardo, scholars have been interested in studying the impact of governments on the economic behaviour of countries and regions. Several economists tried to compare the economic growth of countries to draw implications and formulate policies. The concept of 'distance' started appearing in economic literature in the mid-1900s. In 1955, while addressing the inadequacies in existing location theory, North (1955) presented a set of propositions to compare the economic growth within the United States. Similarly, Patel (1964) was interested in studying the origin, measurement and implications of the economic inequalities between nations. In measuring the economic distance between India and the United States, Patel incorporated the output of the following four sectors: (1) agriculture, (2) industry, (3) commodities and (4) other sectors. More recent contributions on this front have been the works by Boisso and Ferrantino (1997), Krugman (1998) and Ghemawat (2001) among others. These works, although having different approaches, share one common trait – they are interested in examining the role of economic differences between nations in international trade flows.

The concept of 'distance' has played a pivotal role in shaping IB theory. One of the foremost IB theories – the eclectic paradigm – resulted from John Dunning's curiosity in the differences between the American and British economies of the 1950s (Dunning, 1958; 2001). The implementation of the concept of 'distance' in FD literature however, is subject to much scrutiny. One of the major shortcomings of the previous literature has been the operationalisation of distance variables. Most commonly, economic distance has been measured in terms of GDP (Tsang & Yip, 2007; Demirbag, et al., 2011) or exchange rates (Belderbos & Zou, 2009). From the institutional distance perspective, the previous studies have predominantly favoured either North's (1990) formal and informal institutions framework or Scott's (1995) regulative, normative and cognitive institutional pillars. Therefore, the choice of the theoretical approach has affected the consistency in measuring institutional distance. The present study consolidates previous findings, incorporates existing measures of economic and institutional distances, and incorporates other variables such as factor costs.

1.5 Definition of the key concepts

The key concepts in this study have been identified on the basis of their importance in understanding the main phenomenon that is FD and their relevance to the research setting. The definitions adopted here have been derived from books and research articles and have their origins in the economic and IB theories. The key terms of this study are 'Arbitrage', 'Factor costs', 'Foreign Direct Investment', 'Foreign Divestment', 'Economic Distance', 'Institutional Distance', 'Ownership Advantages', 'Establishment Mode' and 'Ownership Mode'. The definitions are provided in Table 1.

Table 1. Definitions of the key concepts

Term	Definition	Source
Arbitrage	A way of exploiting differences in factor costs.	Ghemawat (2007)
Cross-national distance	Differences between the national characteristics of two nations. National characteristics include, but not limited to, economy, institutions, culture, language, geography and legal framework	Berry et al. (2010), Ghemawat (2001), Johanson and Vahlne (1977), Kogut and Singh (1988)
Economic Distance	The differences between economic environments of two countries.	Ghemawat (2001) , Tsang and Yip (2007)
Entry strategy	The strategy adopted by a firm to establish manufacturing operations in the host country (establishment mode) and the level of ownership over the subsidiary (ownership mode).	Agarwal and Ramaswami (1992), Kogut and Singh (1988), Madhok (1997)
Factor costs	Costs of procuring assets, intermediate inputs, knowledge, labour, infrastructure and finances.	Ghemawat (2001)
Foreign Direct Investment	The objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor.	OECD (2008)
Foreign Divestment	Any voluntary or involuntary measure undertaken by a firm that results in a partial reduction or complete withdrawal of operations from a foreign market.	Belderbos and Zou (2009), Boddewyn (1983), Casson (1986), Duhaime and Grant, (1984)
Institutional Distance	The differences between institutional environments of two countries.	Gaur and Lu (2007), Ghemawat (2001), Kostova (1999), Kostova and Zaheer (1999)
Ownership Advantages	Any kind of income-generating asset or input that a firm may create for itself and can enable the firm to engage in foreign production.	Dunning (1980; 2001)

2 THEORETICAL FOUNDATION

The purpose of this chapter is to discuss the major theories used in developing the research framework of the present study. It begins by explaining the origin and mechanism of foreign production. Next, the chapter discusses new institutional economics and its role in shaping the theories in focus in this study. Later, the chapter reviews following three theories which are central to the research framework: (1) eclectic paradigm; (2) transaction cost/internalisation theory; and (3) institution-based view. The chapter concludes by providing a comparative analysis of the theories and their predictions concerning foreign divestment.

2.1 The origin and mechanism of foreign production

Economists over the past century, in challenging the classical economic viewpoint that a market is perfect and functions at its best without any government interference, have opined that a market is imperfect and capitalist in nature (Schumpeter, 1942). The imperfections present in the market create opportunities for individuals to organise the factors to produce goods and thus start a firm. Hence, a firm is born to 'fill in' the imperfections present in the market. In return, the market earns or at least expects some benefits.

Markets have ownership over a wide range of resources ranging from natural resources to human resources to well-established infrastructures. However, markets cannot convert these resources into finished goods themselves. For this purpose they create opportunities for entrepreneurs who organise and direct intangible resources to form a firm which then transforms tangible resources into finished products (see Figure 5). This process, which marks the beginning of production, is called *externalisation*. In the process of externalisation, a market outsources the production activity to its agent – the firm. Therefore, the firm will continue to exist as far as the market is satisfied with its 'service' (or production output). This concept of externalisation can be considered as an extension of Coasian concept of the firm. Coase (1937, p. 22) posits:

> *"...the operation of a market costs something and by forming an organisation and allowing some authority (an 'entrepreneur') to direct the resources, certain marketing costs are saved."*

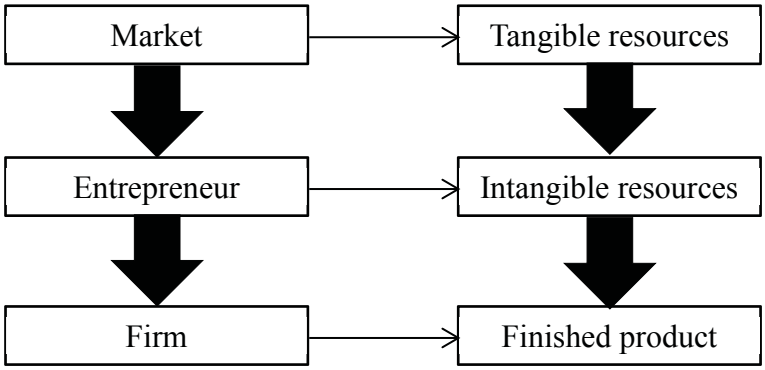


Figure 5. Origin of domestic production

Initially markets seek services of domestic firms to fulfil this objective. If the domestic firms are incapable of producing efficiently, or if they lack necessary knowledge and skills to maximise the benefits of available resources, the markets start seeking services of foreign firms. This marks the beginning of foreign production.

There are three motives of the market to invite foreign production: (1) to address the shortcomings of domestic firms; (2) to innovate and transform the economy; and (3) to seek monetary benefits from foreign firms. For motives (1) and (2) the market assumes that foreign firms have superior knowledge; and for motive (3), the market assumes that foreign firms are wealthier than domestic firms. Firms may enter new markets either by transferring knowledge, resources, goods or services. Resources may include raw materials, human resources, capital and technology. Goods may include semi-finished or finished goods. Services may include banking, insurance, health-care and after-sales services. Knowledge, skills and information are intangible assets that are transferred to foreign markets through people, patents, licenses, copyrights, trademarks and brands. This interaction between markets and foreign firms is also known as international business and has been defined as *"business activities that involve the transfer of resources, goods, services, knowledge, skills, or information across national boundaries"* (Shenkar & Luo, 2008, p. 9).

2.2 New institutional economics

New Institutional Economics (NIE) extends the old institutional and neo-classical economic theories by explaining the role of institutional factors such as property rights and governance structures in reducing transaction costs and uncertainties, and internalising externalities (Eggertsson, 1990; Furubota & Richter, 1991; Rutherford, 2001). The field of NIE uses methodologies and analytical tools from a wide range of disciplines including political science, sociology, anthropology, law, economics and management. It originates from Ronald Coase's highly influential works 'The Nature of the Firm' (Coase, 1937) and 'The Problem of Social Cost' (Coase, 1960). The evolution of NIE is grounded in following two propositions: (1) institutions play a significant role in shaping the economy; and (2) the determinants of institutions are susceptible to analysis by tools of economic theory (Matthews, 1986).

Present day NIE is a confluence of several major works. Among them, Oliver Williamson's transaction cost economics (TCE) and Douglass North's institutional theory are the most widely used theoretical approaches. Both Williamson's and North's works, are inspired by the Coase theorem. The theorem states that if trade in an externality is possible and there are sufficiently low transaction costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property (Coase, 1960).

Although Steven Cheung (1969a; 1969b) was one of the first economists to use the term 'transaction cost', the concept was popularised by Oliver E. Williamson. In particular, two of this works 'Markets and Hierarchies' (Williamson, 1973) and 'The economic institutions of capitalism' (Williamson, 1985) pioneered the application of transaction costs to a wide range of business and economic phenomena. Williamson's TCE is concerned with the allocation of economic activity across alternative modes of organisation (markets, firms, bureaus, etc.), employs discrete structural analysis and describes the firm as a governance structure. The key elements to TCE are bounded rationality, opportunism and asset specificity.

Bounded rationality is a behavioural assumption that is the key to understanding the economic applications of transaction costs. Herbert Simon (1991, p. 132) defines it as "*the limits upon the ability of human beings to adapt optimally, or even satisfactorily, to complex environments*". Under bounded rationality, individuals are expected to receive, store, retrieve and process information (Williamson, 1973). Also, rationally bounded individuals are expected to be intentionally rational but only until a certain limit. The economisation of bounded

rationality is elicited by the intentional rationality whereas limited rationality initiates the role of institutions (Williamson, 1985).

Opportunism is a central theme of Williamson's TCE. According to Williamson (1993), opportunism is the fundamental cause for market failure and existence of organisations. It involves making 'false or empty threats and promises in the expectation that the individual advantage will thereby be realised' (Williamson, 1975). Opportunistic behaviour is materialised by manipulating or misrepresenting facts and figures. Williamson distinguishes opportunistic behaviour from both, stewardship behaviour and instrumental behaviour, by arguing that stewardship behaviour involves a trust relationship and instrumental behaviour is more neutral where the party is not necessarily self-aware of extending its interests.

Asset specificity is important for describing transactions (Williamson, 1981). It is the source from where most of the predictive content of the TCE is generated. The importance of asset specificity can only be asserted in conjunction with bounded rationality and in the presence of uncertainty. Asset specificity is critical for explaining the occurrence of transactions, because once an investment is made, the buyer and the seller continue to operate in a bilateral exchange relationship for a considerable amount of time thereafter (Williamson, 1981). Furthermore, variations in asset specificity are the principal factor for cost differences among transactions (Riordan & Williamson, 1985).

Initially, three sources of asset specificity were mentioned by Williamson (1981), a fourth source being added in his later works (Williamson, 1983; 1985). It may arise out of:

(a) site specificity – which is related to the proximal location of assets so as to economise the production,

(b) physical asset specificity – is product-specific and relates to the specific components required to produce a product,

(c) human asset specificity – arises from knowledge acquisitions and learning process of individuals, and

(d) dedicated assets – a product-specific investment made with the intention to sell to a specific customer that would not otherwise be made.

In TCE, asset specificity is closely associated with forward/backward integration (make or buy decision). The empirical work by Monteverde and Teece (1982)

supported the hypothesis that variations in asset specificity are directly related to the choice between internalisation and market procurement (externalisation). In a similar line, Chiles and McMakin (1996) argue that a risk-seeking firm will prefer a hierarchical organisation when asset specificity is higher.

The TCE framework, thus established by Williamson, differs from other theories of organisational economics. First, TCE is micro-analytical, since the unit of analysis is the transaction itself (Williamson, 2005). Second, it is highly conscious about the behavioural aspects of human beings (the importance of uncertainty and opportunism to the TCE logic highlights this fact). Third, the economic aspect of asset specificity is considered as 'the big locomotive' which gives the TCE framework most of the predictive power (Williamson, 1985). Fourth, it relies on a comparative institutional analysis. Fifth, it views the firm as a governance structure rather than a production facility. Finally, it places greater emphasis on the *ex-post* institutions of contract.

Williamson (1985) suggests that *ex-post* costs of contracting are different from the *ex-ante* costs. *Ex-ante* costs of contracting include (1) drafting an agreement; (2) negotiating; and (3) safeguarding the common form of which is shared ownership. *Ex-post* costs of contracting include (1) costs incurred when transactions are misaligned; (2) bargaining costs incurred when efforts are made to correct *ex-post* transaction misalignments; (3) establishment and operational costs associated with governance structures; and (4) costs incurred for securing commitments. Placing emphasis on the *ex-post* institutions of contract, the TCE framework argues that transactions take place in a market where property rights are well defined and where contracts may be enforced. Enforcement of contracts requires a strong external force such as market institutions (e.g. government). The existence of institutions is contradictory since any group or organisation with the power to make laws is also powerful enough to abuse it to exploit other actors in the market (North & Weingast, 1989). This contradiction, therefore, puts the market actors in a dilemma to either make or buy (Nye, 2008). The 'make or buy' logic is central to the internalisation theory (Buckley & Casson, 1976) and the internalisation factor of the eclectic paradigm (Dunning, 2003), whereas, the institutions and their implications to economic performance serve as the founding stone to the institution-based view IBV (North, 1990) as well as the location factor of the eclectic paradigm (Dunning & Lundan, 2008). These three theories are explored in more detail in the following sections.

2.3 Eclectic paradigm

Over the past five decades, the eclectic paradigm (or the OLI framework) has served as one of the mainstream theories to explain foreign production activities of firms. It started evolving as a post-war economic theory when economists in early 1960s began searching for answers to two major shortcomings of the neo-classical capitalist theory of foreign production. Neo-classical economists used the interest-rate (capitalist) approach to explain international trade and made the following two assumptions. First, capital was the only transferrable resource across borders and it was also the expected return. Second, resources were transferred externally between buyer and seller. With an emergence in cross-border trade and foreign production, both these assumptions turned to be either partially or completely untrue. As noted by Hymer (1960; 1976), this approach did not explain the concept of control over foreign affiliates.

The origins of the eclectic paradigm can be traced back to Hymer's seminal doctoral thesis 'International Operations of National Firms: A Study of Direct Foreign Investment' published posthumously in 1976 (see Hymer, 1960, 1976). Discontent with the neo-classical approach towards international trade, Hymer developed a crucial proposition which would go on to form one of the main building blocks of the eclectic paradigm (1988b). He proposed that firms operate in imperfect market conditions, and it is necessary to acquire and sustain certain advantages in the host market over other firms. A key assumption here is that firms are repositories of intangible resources which they use to transform raw materials into finished goods. Central to Hymer's theory is the concept of control. Control is important for the following three reasons. First, control over assets ensures the safety of the investment. Second, the motivation to have control over foreign assets is to eliminate competition in the market. Finally, in an imperfect market, greater control enables a firm to fully appropriate its skills and expertise.

Originally, Hymer's theory on MNEs was largely influenced by the industrial organisation theory and as such neglected the importance of transaction costs (Dunning & Rugman, 1985; Pitelis, 2006). His theory also tended to explain the origins of the MNE rather than its growth and its importance to the global economy. In some of his later works, however, Hymer became increasingly interested in studying the MNE as an important factor of international trade (Dunning, 2006). In the early 1970s, Dunning started expanding Hymer's theory and the concept of eclectic paradigm first appeared in 1976 in his paper presented at the Nobel Symposium in Stockholm. According to Dunning (1979), firms have ownership over certain intangible resources or *ownership advantages* that are

unique for a period of time after which their value diminishes. Once firms develop their unique resources, they then use them to produce goods themselves rather than selling them to others. The firms' capability and willingness to utilise their ownership advantages to produce goods themselves was named the *internalisation advantage* (Buckley & Casson, 1976; Dunning, 1977; 2003). Once the firms are capable to produce goods themselves, they find it profitable to shift their production to markets that offer certain incentives over the domestic market. This assumption of the eclectic paradigm, which Dunning (1977; 1998) calls the *location advantage*, explains the incentive to internationalise. Dunning (1979, p. 275), thus, proposed that a firm will engage in foreign direct investment if:

(a) it possesses net ownership advantages *vis-à-vis* firms of other nationalities in serving particular markets. These ownership advantages largely take the form of the possession of intangible assets, which are, at least for a period of time, exclusive or specific to the firm possessing them.

(b) assuming condition (1) is satisfied, it must be more beneficial to the enterprise possessing these advantages to use them itself rather than to sell or lease them to foreign firms, i.e. for it to internalise its advantages through an extension of its own activities rather than externalise them through licensing and similar contracts with independent firms.

(c) assuming conditions (1) and (2) are satisfied, it must be profitable for the enterprise to utilise these advantages in conjunction with at least some factor inputs (including natural resources) outside its home country; otherwise foreign markets would be served entirely by exports and domestic markets by domestic production.

Although the eclectic paradigm has found wide usage in FDI and entry mode studies, its application to examine FD has been largely limited. Among the few studies that have used the eclectic paradigm to explain FD, Boddewyn's (1983) seminal paper 'Foreign Divestment Theory: Is It the reverse of FDI Theory?' is worthy of our attention. According to Boddewyn, FD is the reverse of FDI and occurs when either of the OLI factors of the eclectic paradigm is absent. He suggests that a firm will divest its foreign operations if:

(a) it ceases to possess net competitive advantage over firms of other nationalities;

(b) or even if it retains the net competitive advantages, it no longer finds it beneficial to use them itself rather than sell or rent them to foreign firms – that is, the firm no longer considers it profitable to 'internalise' these advantages;

(c) or if it no longer finds it profitable to utilise its internalised net competitive advantages outside its home country – that is, it is now more advantageous to serve foreign markets by exports and the home market by home production, or to abandon foreign and/or home markets altogether.

Boddewyn's effort at formulating a theory of FD was acknowledged by Dunning (1988a) who proposed, *"…it (foreign divestment) requires the absence of only one of the three OLI variables…"* (p. 22). However, there is a fundamental difference between the eclectic paradigm and Boddewyn's FD theory. On the one hand, the eclectic paradigm necessitates that all three OLI advantages should be satisfied simultaneously. On the other hand, the FD theory suggests that FD can take place when either of OLI advantages is absent. Hence, the FD theory is more parsimonious that the eclectic paradigm (Boddewyn, 1983).

Much of the empirical FD literature that has used the eclectic paradigm has focused on examining the role of ownership and internalisation advantages. The ownership advantages, which include parent firm's host country experience (Gaur & Lu, 2007), international experience (Benito, 1997; Park & Park, 2000), divestment experience (Villalonga & McGahan, 2005), and R&D and advertising intensity (Delios & Beamish, 2001; Park & Park, 2000), have been predicted to have a negative impact on FD. The internalisation advantages, which include establishment mode (Acquisition) (Benito, 1997; Mata & Portugal, 2000) and ownership mode (Joint Venture) (Makino, et al., 2007; Mata & Portugal, 2000), have been predicted to have a positive impact on FD.

2.4 Transaction cost/internalisation theory

The transaction cost/internalisation theory is a dominant theory in IB literature which is used to explain MNEs choice of foreign markets, entry modes and ownership structure. It emerged as a mainstream MNE theory in the book 'The future of the multinational enterprise' by Buckley and Casson (1976). They define a MNE as "*an enterprise which owns and controls activities in different countries*" (1976, p. 1). The fundamental logic to the internalisation theory is the 'make or buy' decision which expects the firms to seek the least-cost location for each activity. In

other words, MNEs decide their operation modes in foreign markets on the basis of the transaction costs involved in the host country. Therefore, the boundaries of the firm are set at the margin where the benefits of further internalisation of markets are just offset by the costs (Buckley & Casson, 1976).

The benefits to internalise originate from imperfections present in the market. Buckley and Casson (1976) identify five such market imperfections. First, there is a time lag between the initiation and completion of interdependent market activities. The time lags create an incentive to organise their internal markets. Second, imperfections arising from discriminatory price mechanisms encourage firms to integrate forward or backward. Third, imperfections arise from unequal bargaining powers of firms. Unequal bargaining power between firms creates uncertainty which is best overcome by firms entering an agreement of joint collaboration, or through merger or acquisition. Fourth imperfection is related to the inequalities of knowledge between buyer and seller which encourages forward integration. The final imperfection is related to the institutional barriers in the foreign market. These imperfections may arise from differences in tax and interest rates, restrictions on the movement of capital, or additional tariffs imposed by the government on foreign firms.

The market imperfections listed above provide a strong incentive to internalise. However, MNEs' capability to internalise the markets largely depends on the various types of knowledge they hold (Hennart, 1982). A firm's profitability and the dynamics of its growth are based on a continuous process of innovation stemming from R&D (Buckley & Casson, 1976; 2009). In this context, innovation was construed broadly to encompass not only technology but also new products, new production methods, new business methods and other commercial applications of new knowledge. These aspects, which are recognised as firm specific advantages (FSA), are key to the firm's success in domestic and foreign markets (Rugman & Verbeke, 1992). Rugman and Verbeke (1992) further classify FSA as location bound (LB-FSA) and non-location bound (NLB-FSA). The NLB-FSA *"can be exploited globally, and lead to benefits of scale, scope or exploitation of national differences"* (1992, p. 763). These benefits need not necessarily originate within the firm and can be created and acquired by subsidiaries. The LB-FSA, on the other hand, are confined to a particular location and cannot be easily transferred to foreign markets. Thus, the NLB-FSA differentiate FDI from domestic production.

Research in IB has extensively used the internalisation theory to study the MNEs' entry strategies (Agarwal & Ramaswami, 1992; Buckley & Casson, 1998), whereas

research on the topic of JV ownership has predominantly been from the transaction cost perspective (Hennart, 1988; Hennart & Reddy, 1997). Rugman (1980) argues that existing FDI theories are subsets of the internalisation theory and all FDI cases can be explained in terms of the MNE using the internal market instead of the external imperfect markets.

The application of the transaction cost/internalisation theory to FD has largely focused on examining the survival of entry and ownership mode. Majority of the studies using this approach have predicted a positive impact of acquisitions (Hennart, et al., 1998; Park & Park, 2000) and joint ventures (Dhanaraj & Beamish, 2004; Hennart, et al., 1998) on FD. The transaction cost variables related to asset specificity, such as R&D and advertising intensity (Delios & Beamish, 2001; Park & Park, 2000), and entry mode experience (Park & Russo, 1996; Vermeulen & Barkema, 2001; Villalonga & McGahan, 2005), have been predicted to have a negative impact on FD. Due to the high transaction costs associated with acquiring and assimilating information, diversification of the subsidiary (subsidiary unrelatedness) into a different industry form that of the parent firm, has been predicted to have a positive impact on FD (Hennart, et al., 1998). A few studies have used the transaction cost/internalisation theory to examine the impact of cross-national distance on FD. For instance, Tsang and Yip (2007) and Demirbag et al. (2011) predicted a negative impact of ED on FD mainly because the economically less developed countries offer opportunities to reduce manufacturing costs, improve performance and gain a competitive advantage over other firms.

2.5 Institution-based view

The IBV is a widely used theoretical approach in IB and FD literature. North (1990, p. 27) acknowledges that the *"theory of institutions is constructed from a theory of human behaviour combined with a theory of the costs of transacting (transaction costs)"*. Over the past three decades, IBV has evolved along two separate schools of thought – North's (1990) formal and informal institutions, and Scott's (1995) regulatory, normative, and cognitive framework.

Following the NIE and transaction cost logic, North (1990) developed a theory that emphasises the importance of a set of formal and informal institutions for balanced economic growth. Formal institutions are legal structures that govern the political, administrative and economic environment of a country. They are important to ensure ethical, fair and efficient business practices. Countries with a sound formal institutional structure attract investors and accordingly Porter and

Van der Linde (1995) have suggested that governments can trigger better innovations by introducing strict environmental regulations, thereby making production more efficient. This highlights the important role played by formal institutions in shaping the modern economy. Informal institutions, on the other hand, are a set of unsaid and unwritten customs, traditions, beliefs, norms and human habits that are embedded in the national culture (North, 1990). Therefore, informal institutions largely vary from country to country and region to region.

Scott's (1995) institutional theory uses a sociological approach and is focused mainly on the interplay between institutions and organisational legitimacy. His theory revolves around the following three dimensions of institutions: (1) regulative pillar; (2) normative pillar; and (3) cognitive pillar. The regulative pillar is concerned with formal institutions of the country that regulate and govern the market. The normative pillar is concerned with the social norms that dictate unwritten rules. The cognitive pillar is related to the human actions embedded in the national culture. These pillars provide a framework which could be used by firms in attaining organisational legitimacy in foreign markets (Kostova & Zaheer, 1999; Scott, 1995).

In FD literature, the IBV has been used to examine the role of environmental uncertainties and country risk in divestment decisions. Several studies have argued that unstable and changing institutional environment of the host country is hazardous for foreign operations (Benito, 1997; Chung & Beamish, 2005; Dai, et al., 2013; Soule, et al., 2014). Investments made in countries characterised by political instability and domestic conflict, are exposed to place-specific threats (Dai, et al., 2013). The economy of such countries is subject to abrupt changes that are likely to increase the probability of FD (Benito, 1997). A counterargument provided my Chung and Beamish (2005) suggests that in the post-crisis phase, host country governments change their FDI related policies to attract foreign investment, which has an indirect positive effect on the survival of existing subsidiaries.

Some studies have also examined the impact of institutional distance between home and host countries on the probability of divestment (Gaur & Lu, 2007; Kang, et al., 2017; Pattnaik & Lee, 2014). While Pattnaik and Lee (2014) and Kang et al. (2017) predicted a linear relationship between institutional distance and FD, Gaur and Lu (2007) predicted a U-shaped relationship. Pattnaik and Lee (2014) and Kang et al. (2017) argue that political and administrative distances create major obstacles in conducting business efficiently. The logic behind Gaur and Lu's (2007) prediction can be rooted in Ghemawat's (2001; 2007) proposition that

institutional distance creates opportunities for economic arbitrage. Hence, at low and medium levels of institutional distance firms find ample opportunities for economic arbitrage. However, when the institutional distance increases, costs increase; and hence, survival becomes difficult (Gaur & Lu, 2007).

A parallel stream of literature has examined FD from the lens of organisational legitimacy perspective. Scholars using this approach argue that legitimacy is an important resource in acquiring other resources (Zimmerman & Zeitz, 2002). Attaining a position of legitimacy in the host country is critical for MNEs since foreign investments are subject to opportunistic behaviour from the host government (Mata & Freitas, 2012). Legitimacy also plays a critical role in determining the success of IJVs. For instance, Lu and Xu (2006) argue that internal legitimacy is important for the transfer of resources from the parent firm to the JV, even more so when the subsidiary operates within the same industry as its parent firm.

2.6 Conclusions

The chapter highlighted the key arguments and predictions of the three theories which are used in developing the research framework of this study. A comparative analysis of their predictions related to the probability of divestment are summarised in Table 2. The variables used to operationalise the theoretical logic can be broadly classified as firm-level, subsidiary-level and country-level variables.

At the firm-level, the most commonly used variables are intangible assets. According to the eclectic paradigm and transaction cost/internalisation theory, knowledge and experience are important FSAs which give the MNEs a competitive advantage in foreign markets. Different types of experiences such as international experience, host country experience and entry mode experience have been predicted to negatively impact the probability of divestment. In IBV studies, knowledge resources are argued to have a negative impact on FD because higher industrial and market knowledge better equips firms to overcome institutional risk and the uncertainties in the host country.

The most commonly examined subsidiary-level variables are entry strategies which include establishment and ownership modes, relatedness of the subsidiary to the parent firm and subsidiary density in the host country. With respect to entry strategies, most studies have predicted a positive relationship between acquisitions and FD, and between JV and FD. This prediction is made mainly using the transaction cost/internalisation approach. Unrelated subsidiaries are the

results of over diversification and horizontal expansion. Such subsidiaries are most likely to be divested to reduce the high governance costs. Subsidiary density or aggregation of subsidiaries from the same home country has been predicted to negatively impact divestment.

At the country-level, scholars have analysed the impact of economic and institutional environments on divestment decisions. While some scholars have examined the role of host country environment (or country risk), others have examined the role of the dyadic distance between the home and host country environments. Country risk, measured as economic uncertainty and institutional risk, has been predicted to have a positive impact on FD. The predictions related to dyadic distance between home and host countries are mixed. Economic distance has been predicted to either have a positive or negative impact on FD. The relationship between institutional distance and FD has been predicted to be either positive or non-linear (U-shaped).

Table 2. Theoretical predictions of commonly examined variables

Variable	OLI	TC/I	IBV
Firm-level			
Host country experience	-		
International experience	-		
Entry mode experience		-	
R&D and advertising intensity	-	-	-
Market and technological knowledge	-	-	-
Subsidiary-level			
Entry mode - Acquisition	+	+	
Ownership mode - JV	+	+	
Unrelatedness to the parent firm		+	+[a]
Subsidiary density form same host country			-
Country-level			
Institutional risk/uncertainty			+
Institutional distance			+/U
Economic risk/uncertainty		-	
Economic distance		-	+/-

+ Increases probability of divestment, U Curvilinear effect

OLI: Ownership, Location, Internalisation framework (eclectic paradigm), TC/I: Transaction cost/Internalisation theory, IBV: Institution-based view

a. Subsidiary unrelatedness used as a measure for organisational legitimacy in the host country.

3 REVIEW OF EMPIRICAL LITERATURE ON FOREIGN DIVESTMENT

This chapter reviews empirical works based on the three theories that were discussed in the previous chapter. It begins by providing a brief introduction to the existing literature on foreign divestment. Next, it explains the methodology and scope of the review. The review is separated into two parts based on the nature of the relationship between the explanatory and dependent variable. First, the chapter reviews the direct effects of the explanatory variables on foreign divestment. Second, the chapter reviews the interactions between the explanatory variables and their impact on foreign divestment. Finally, the chapter summarises the findings and identifies the limitations in the existing literature.

3.1 Introduction

Foreign divestment (FD), which is understood as the reduction of equity held by a MNE in its foreign subsidiary, is often a complex process that has significant implications on the growth and performance of the firm and its shareholders' value. Accordingly, IB scholars have explored this topic using several theoretical approaches including transaction cost approach, knowledge and resource-based view, institutional theory, eclectic paradigm, network-based view, cultural dimensions approach and real options theory.

However, there appear to be several shortcomings in the FD literature. First, the existing literature has failed to propose a comprehensive theory for FD (Trąpczyński, 2016). Although some scholars have suggested that FD is the reverse of the FDI process (Boddewyn, 1983), this assumption needs to be challenged since it cannot be simply assumed that the factors responsible for FDI are the same ones responsible for FD (Kotabe & Ketkar, 2009). Second, the majority of the literature has focused on examining the antecedents to FD. In comparison, only a few studies have examined its effects and outcomes (Coakley, et al., 2008; Gleason, et al., 2000). Third, there is a great degree of ambiguity, particularly concerning the institutional environment of the host country and its impact on divestment decisions. While some scholars have argued that an unfavourable institutional environment is positively related to subsidiary divestment, others have suggested that investments made in a risky environment, turn profitable once the institutional environment stabilises. Traditionally, market uncertainties and poor performance have been attributed to divestment and restructuring activities (Hoskisson, et al., 1994; John, et al., 1992; Markides, 1995). However, recent studies suggest that subsidiaries operating in unfavourable market environment

and diversified industries are less likely to be sold (Chung, et al., 2013a; 2013b; Cui & Kumar, 2012). Finally, the cause and effect of different modes of divestment are poorly understood.

To address the shortcomings of existing literature, this chapter reviews 27 empirical works on FD. The first goal of this chapter is to compare the arguments and predictions made by the following three theories: (1) transaction cost/internalisation theory; (2) eclectic paradigm; and (3) institution-based view (IBV). These theories are widely used in internationalisation and entry mode studies; however, FD research has found several overlapping arguments and inconsistencies in their predictions. Therefore, this chapter seeks to consolidate the findings of the existing literature on FD and identify potential avenues for theoretical contribution. The second goal of this chapter is to find the reasons why the theoretical approaches in question are more efficient in explaining the antecedents to FD and not the outcomes. Finally, the goal of this chapter is to present the findings in a way that would be beneficial for the theoretical advancement of the subject in question.

The present review differs from previous divestment reviews in two principal ways. First, it focuses exclusively on FD studies unlike other reviews that have focused on a wider research theme including corporate restructuring and domestic divestments in addition to FD (Brauer, 2006; Kolev, 2016; Lee & Madhavan, 2010; Moschieri & Mair, 2008). Second, the chapter reviews divestments of manufacturing subsidiaries unlike the reviews by Trąpczyński (2016) and Turner (2012) that have focused on deinternationalisation, export withdrawal and foreign sales reduction.

3.2 Methodology

3.2.1 Scope of the review and literature search

The present review is focused on the empirical literature on FD published between 1996-2017. It reviews only the impact of primary/exploratory and moderator variables leaving out control variables. The review excludes the works published before 1996 for the following two reasons. First, the majority of the FD literature published before 1996 was mainly focused on the corporate portfolio theory (Duhaime & Grant, 1984; Hamilton & Chow, 1993), industrial organisation theory (Audretsch, 1991; 1995; Audretsch & Mahmood, 1995) and knowledge-based view (Li, 1995).

Second, the theoretical developments on IBV and their implications for IB started appearing in the late 1980s and early 1990s and IBV focused FD studies started appearing only after 1997 (Chung & Beamish, 2005; Gaur & Lu, 2007; Park & Ungson, 1997).

The literature search was initiated by using several keywords including 'divestment', 'divestiture', 'exit', 'dissolution', and 'market failure'. Several leading internet databases such as ABI Inform, EBSCOhost, ProQuest, Wiley Online Library, Science Direct, Emerald and JSTOR were the primary sources for building the dataset. A key tool used in the literature search was the ancestry approach, a method frequently used in review studies across several social science disciplines (Cooper, 1982). Additional search was conducted by directly accessing leading journals in IB, management and strategic management disciplines.

The final sample included 27 empirical studies of which 4 were published before 2000, 16 were published between 2000-10, and 7 were published after 2010. The unit of analysis in all studies was the subsidiary or the business unit. This is because the majority of the literature has focused on the antecedents to divestment and therefore examining the impact of external as well as internal factors on subsidiary survival is a valid methodological approach. The most common publication outlets were: Academy of Management Journal and Strategic Management Journal (4 studies each); Journal of International Business Studies and Management International Review (3 studies each); Journal of Business Research and Journal of Management (2 studies each); Applied Economics, Asia Pacific Business Review, International Business Review, Journal of Management Studies, Journal of World Business, Management Science, Organisation Science and Small Business Economics (1 study each). The sample also included a conference paper. A summary of the 27 studies is provided in Table 3.

Table 3. Summary of empirical works included in the review

	Work	Theoretical Framework	Entry/ Ownership mode	Home country(s)	Host country(s)	Time duration	Sample size (exit rate)	Nature of exit 0=Closure (Dissolution, Liquidation); 1=Divestment (Sell-off)	Industry/sector	Statistical model
1	Park and Russo (1996)	TCE	IJV	Several including U.S.	U.S.	1979-88	204 JVs (27.5% exit rate)	0 (small number of sales to third parties considered as failure)	Manufacturing (Electronics)	Accelerated event-time model, Maximum likelihood technique
2	Benito (1997)	Eclectic paradigm, IBV, KBV	n.i.	Norway	Several	1982-92	153 FDIs (56% exit rate)	n.i.	Manufacturing	Logistic regression
3	Park and Ungson (1997)	Cultural dimensions theory, IBV (informal institutions)	IJV	Japan, U.S.	U.S.	1979-95, 1988-95	186 JVs (137 IJVS, 49 domestic JVs) (43% exit rate)	0, 1	Manufacturing	Accelerated event-time model, Log-normal regression
4	Hennart et al. (1998)	TCE	IJV, WOS	Japan	America	1980-91	355 subsidiaries, 108 exits (30.42% exit rate)	0, 1	n.i.	CPHM
5	Mata and Portugal (2000)	Eclectic paradigm, Industrial Organisation	n.i.	n.i.	Portugal	1983-89	1033 firms (5.9% exit rate for closure; 5.7% exit rate for divestment)	0, 1 (intended and unintended termination of IJVs)	n.i.	CPHM
6	Park and Park (2000)	TCE	n.i.	Korea	n.i.	Until 1998	469 firms, 128 exits (27.3% exit rate)	n.i.	n.i.	CPHM
7	Delios and Beamish (2001)	Eclectic paradigm, KBV	IJV, WOS, Greenfields	Japan	n.i.	1987-96	3080 subsidiaries, 650 exits (21.1 % exit rate)	0, 1	Manufacturing	Lognormal
8	Vermeulen and Barkema (2001)	Eclectic paradigm (ownership advantages), KBV	Acquisitions, Greenfield	Netherlands	n.i.	1966-94	25 firms, 1349 observations (41% exit rate)	0, 1	Non-financial firms	CPHM

	Work	Theoretical Framework	Entry/ Ownership mode	Home country(s)	Host country(s)	Time duration	Sample size (exit rate)	Nature of exit 0=Closure (Dissolution, Liquidation); 1=Divestment (Sell-off)	Industry/sector	Statistical model
9	Dhanaraj and Beamish (2004)	TCE	IJV	Japan	25 countries	1986-97	12984 subsidiaries	0, 1	n.i.	CPHM
10	Mata and Portugal (2004)	Eclectic paradigm (ownership advantages)	n.i.	Portugal (outward FDI), several (inward FDI)	Portugal (inward FDI), several (outward FDI)	1982-90	613 greenfields (10% exit rate) , 420 acquisitions (4% exit rate)	n.i.	n.i.	Weibull distribution
11	Chung and Beamish (2005)	IBV	IJV, WOS	Japan	5 (Indonesia, Thailand, South Korea, Malaysia, Philippines)	1997-2001	Model 1: 3515 subsidiaries, 802 exits (22.82% exit rate); Model 2: 2428 subsidiaries, 570 exits (23.48% exit rate); Model 3: 2655 subsidiaries, 679 exits (25.57% exit rate)	n.i.	Manufacturing, Trading	CPHM
12	Lu and Hebert (2005)	TCE	IJV	Japan	12 (China, Thailand, Malaysia, Philippines, Indonesia, India, Pakistan, Sri Lanka, Brunei, Vietnam, Laos, and Bangladesh)	1985-93	720 IJVs, 119 exits (16.52% exit rate)	n.i.	n.i.	CPHM

	Work	Theoretical Framework	Entry/ Ownership mode	Home country(s)	Host country(s)	Time duration	Sample size (exit rate)	Nature of exit 0=Closure (Dissolution, Liquidation); 1=Divestment (Sell-off)	Industry/sector	Statistical model
13	Villalonga and McGahan (2005)	RBV, TCE, Agency theory, Organisational learning theory, and Social embeddedness theory	IJV	U.S.	n.i.	1990-2000	86 firms	n.i.	Manufacturing, Trading	Probit model
14	Lu and Xu (2006)	IBV (organisational legitimacy)	IJV	Japan	China	1981-99	291 JVs (12% exit rate)	--	83% of total sample are manufacturing firms	OLS, Exponential model
15	Gaur and Lu (2007)	IBV, Organisational learning theory	IJV	Japan	52 countries	1986-2001	20177 FDIs (41% exit rate), 9633 IJVs (42% exit rate)	n.i.	Manufacturing	CPHM
16	Makino et al. (2007)	Eclectic paradigm, Liability of foreignness	IJV, WOS	Japan	n.i.	1996-2001	999 IJVs, 566 exits (56.66% exit rate); 2222 WOSs, 750 exits (33.75% exit rate)	0, 1	n.i.	Chi-square, Maximum-likelihood analyses
17	Tsang and Yip (2007)	Organisational learning theory, TCE	Acquisitions, Greenfield	Singapore	42 countries	1980–2000	1373 FDIs	0, 1	n.i.	CPHM
18	Xu and Lu (2007)	IBV, KBV	IJV	Japan	China	1986-2001	1038 IJVs, 187 exits (18.02% exit rate)	n.i.	n.i.	CPHM
19	Delios et al. (2008)	IBV	n.i.	Japan	120 countries	1988-2001	12992 subsidiaries, 2963 exits (22.8% exit rate)	n.i.	n.i.	Event history analysis
20	Dhanaraj and Beamish (2009)	IBV	IJV	Japan	25 countries	1986-97	12984 subsidiaries	0, 1	n.i.	CPHM

	Work	Theoretical Framework	Entry/ Ownership mode	Home country(s)	Host country(s)	Time duration	Sample size (exit rate)	Nature of exit 0=Closure (Dissolution, Liquidation); 1=Divestment (Sell-off)	Industry/sector	Statistical model
21	Demirbag et al. (2011)	IBV, TCE	n.i.	Japan	Middle East and North African countries	1986-2003	265 subsidiaries, 130 exits (49% exit rate)	0	Agriculture, Manufacturing, Services, Wholesale and trade, Finance and real estate, Miscellaneous	CPHM
22	Mata and Freitas (2012)	Eclectic paradigm, IBV (liability of foreignness)	n.i.	Portugal (outward FDI), several (inward FDI)	Portugal (inward FDI), several (outward FDI)	2006-07	3548 foreign firms (9.2% exit rate), 367 domestic multinationals (4.9% exit rate)	n.i.	Manufacturing, Services	Probit model
23	Dai et al. (2013)	IBV, Economic geography, Political economics	IJV, WOS	Japan	25 countries	1987-2006	670 subsidiaries, 137 exits (20.45% exit rate)	0, 1 (123 closures, 14 sell off)	Primary, Manufacturing, Wholesale	Hierarchical regression analysis
24	Pattnaik and Lee (2014)	Cultural dimensions theory, IBV	IJV (moderator)	Korea	67 countries	2000-10	2435 subsidiaries	Voluntary complete withdrawal of the subsidiary from the host country.	Manufacturing	CPHM
25	Peng and Beamish (2014)	TCE	n.i.	Japan	29 countries	1996-2005	10236 subsidiaries, 2401 exits (23.46% exit rate)	n.i.	n.i.	CPHM
26	Mata & Portugal (2015)	KBV, TCE	Acquisition, Greenfield, IJV	n.i.	Portugal	1983-2008	3697 IJVs, 2839 exits (78% exit rate)	0, 1	n.i.	CPHM
27	Kang et al. (2017)	Eclectic paradigm, TCE	n.i.	Korea	67 countries	1990-2012	3574 subsidiaries	n.i.	Manufacturing	CPHM

IBV: Institution based view; KBV: Knowledge based view; TCE: Transaction cost economics; RBV: Resource based view; IJV: International joint venture; CPHM: Cox's proportional hazard model; WOS: Wholly owned subsidiary; n.i.: No information

3.2.2 Method of analysis

The 27 were content analysed to identify the following: (1) Theoretical framework and key arguments/predictions/hypotheses; (2) Sample characteristics and sample location; (3) Time period; (4) Industry/sector specification; (5) Data sources and method of analysis; and (6) Key findings. The review follows an inductive approach, that is, it takes stock of what has been published and summarises the knowledge in order to identify potential gaps in the literature. The review is directed towards examining the direct and moderation effects (interaction effects). The variables included in the direct effects were classified as: (1) parent firm characteristics; (2) IJV characteristics; (3) subsidiary characteristics; and (4) country characteristics. The moderation effects were classified as those examining a mixed sample and those examining an IJV sample. The summary of the review is presented in a way to highlight the predictions and results of the main hypotheses of the previous studies.

3.3 Findings

The findings of the empirical review are discussed in three subsections. Subsection 3.3.1 discusses the general findings – those concerning the sample location, exit rate, industry/sector and time period. Findings of the direct effects are discussed in subsection 3.3.2. The review of direct effects was conducted on a sample of 25 out of the 27 studies since 2 studies exclusively examined moderation effects. The review for moderation effects was conducted on a sample of 13 studies. Findings of the moderation effects are discussed in subsection 3.3.3.

3.3.1 General findings

The empirical studies included in this review tend to favour a sample of Japanese MNEs. Out of the 27 studies, fifteen were based on Japanese FDI, followed by three on Korean and U.S., two on Portuguese and one each on Dutch, Singapore and Norwegian FDI. The choice of host country was more evenly distributed as compared to the choice of home country. Four studies examined subsidiaries in East, South East, and South Asian countries including India, China, Thailand, Malaysia and South Korea among others, followed by three examining Portuguese subsidiaries, two examining U.S. subsidiaries, and one examining Middle-East/African subsidiaries.

The exit rate is calculated as the percentage of exits out of the total sample. The review suggests that there is a great degree of variation between the exit rates. On the one hand, three studies reported an exit rate of 10% or lower, the lowest being 4% – Mata and Portugal (2004). Other studies that reported a low exit rate (<10%) were Mata and Portugal (2000) – 5.9 % and 5.7% for closure and divestment respectively, and 9.2% – Mata and Freitas (2012). On the other hand, six studies reported exit rates over 40%, the highest being 56.7% – Makino et al. (2007), followed by 56% – Benito (1997), and 49% – Demirbag et al. (2011). Information related to the number of exits and exit rate was missing in five studies. With respect to the choice of industry, seven studies exclusively examined manufacturing subsidiaries, whereas six studies, examined in addition to manufacturing a range of other industries including agriculture, services, finance and trading. Information related to the industry/sector of operation for the remaining thirteen studies was unavailable.

The average time-period of analysis was between 8-12 years. The longest time period analysed was 28 years (Vermeulen & Barkema, 2001) and the shortest was 2 years (Mata & Freitas, 2012). Majority of the studies analysed divestments that were conducted between 1980-2000 (13 studies). The most recent time-period was 1990-2012 (Kang, et al., 2017).

3.3.2 Direct effects

The predictions and findings of the direct effects are presented in Table 4. For certain variables, the results have been highly consistent. These variables mainly concern the firms' entry modes (Acquisition vs Greenfield) or their ownership modes (JV vs WOS). The results for entry mode choice show a positive impact of acquisition on FD (Hennart, et al., 1998; Mata & Portugal, 2000; Park & Park, 2000). Similarly, almost all results for ownership mode show a positive impact of JV on FD (Chung & Beamish, 2005; Gaur & Lu, 2007; Hennart, et al., 1998; Makino, et al., 2007; Park & Park, 2000), with the exception of Mata and Portugal (2000) who found the relationship to be non-significant. Another variable that has been reported consistently is 'subsidiary unrelatedness'. The results for this variable have also been consistent, in that all studies have found a positive relationship between subsidiary unrelatedness to the parent firm and divestment.

Table 4. Predictions and results: direct effects

	1		2		3		4		5a		5b		6		7		8		9		10		11		12	
	P	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**
Parent characteristics																										
Knowledge resources																										
Advertising intensity													-	+	-	-										
R&D intensity													-	#	-	-										
Market knowledge																									-	#
Experience-related factors																										
Host country experience							-	#							-	-										
Human capital endowment experience									-	-	-	-														
Acquisition experience																	-	-							-	-
Divestment experience																									+	+
International experience			-	#									-	#												
Greenfield experience																	+	+								
Greenfield experience in same market																	+	+								
Acquisition experience in same domain																	-	-								
Recency of experience																									U	U
Structural characteristics																										
Foreign vs Domestic firm																					-	-				
Size							+	+																		
Ownership characteristics																										
Insider ownership																									+	-
Equity ownership																									+	#
Institutional ownership																									+	+
Limited liability structure									-	-	+	+														
Miscellaneous																										
Diversification																									U	U
Governance specialisation																									-	#
IJV characteristics																										
Intangible resources																										
JV experience	-	#													-	-									-	-
JV experience with same partner	-	#																							-	-
Foreign parent technological knowledge																									-	-
Structural characteristics																										
Parent firm size symmetry					-	#																			+	+
Parent firm age symmetry					-	#																				

	1		2		3		4		5a		5b		6		7		8		9		10		11		12	
	P	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**
Partnership characteristics																										
Inter-partner competition	+	+			+	+																				
Product overlap between partners					+	+																				
Similar strategic scope of partners					-	#																				
Technology transfer between partners					+	+																				
Partner interdependency	+	-																								
Same country partner JV					+	#																				
Number of partners	+	-																								
Cultural distance between partners					+	-																				
Ownership characteristics																										
Foreign equity ownership																			-	-						
Ownership type - Minority JV											+	+											+	+		
Subsidiary characteristics																										
Age							+/-	#													-	-				
Size																					+	+				
Entry mode - Acquisition			+	+			+	+	-	-			+	+												
Ownership mode - JV			+	#			+	+			+	+	+	+									+	+		
Unrelatedness (industry)			+	#			+	+					+	+											+	+
Unrelatedness (transactional)																									+	+
Technological resources																									-	#
Marketing resources																									-	-
Country characteristics																										
Economic factors																										
Economic growth			-	-																						
Institutional factors																										
Institutional risk																										
Political risk			+	#									+	+												
Cultural factors																										
Cultural distance			+	#									+	#												
Industry characteristics																										
Growth							-	-																		
Trading/Manufacturing																							-	-		
Exit barriers													-	#												

Table 4 continued

	13		14		15		16		17		18		19		20		21		22		23		24		25	
	P	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**
Parent characteristics																										
Experience-related factors																										
Host country experience			-	+																						
Structural characteristics																										
Foreign vs Domestic firm															+	-										
Foreign vs Domestic MNE															+	-										
IJV characteristics																										
Intangible resources																										
Parent international experience					-	+																				
Foreign parent technological knowledge									-	#													-	#		
Structural characteristics																										
Size					-	-																	-	-		
Host parent size	-	-																								
Host parent age	-	#																								
Change of CEO					+	#																				
Parent firm restructuring					+	#																				
Partnership characteristics																										
Foreign parent relatedness	-	-																								
Cultural distance between partners					+	+																				
Ownership characteristics																										
Ownership type - Minority JV			+	+																						
Ownership structure of parent firms					∩	#																				
Investment characteristics																										
Strategic asset seeking JV					+	+																				
Market seeking JV					-	-																				
Capital seeking JV					-	-																				
Resource seeking JV					-	-																				
Miscellaneous																										
Host parent relatedness	-	-*																								
IJV Product relatedness to foreign parent									-	-																
Subsidiary characteristics																										
Ownership mode - JV			+	+	+	+																				
Subsidiary density in same home country																	-	+								

	13		14		15		16		17		18		19		20		21		22		23		24		25	
	P	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**
Country characteristics																										
Economic factors																										
Economic risk																										
Economic distance							-	-					-	-					+	+					+	+
Economic freedom distance													+	+												
Financial distance																			+	+					+	+
Increase in competition					+	#																				
Change in market demand					+	+																				
Change in exchange rate					+	#																				
Labour cost growth																										
Institutional factors																										
Institutional risk																	+	+								
Political risk																	+	+								
Political openness											-	-*														
Social openness											-	#														
Political openness (IJV sample)											+	+														
Social openness (IJV sample)											+	+*														
Normative distance			U	U																						
Political distance			U	U															+	+					+	+
Administrative distance																			+	+					+	+
Cultural factors																										
Cultural distance																			+	+						
Long term orientation of host country																					-	#			+	
Miscellaneous																										
Demographic distance																			+	#					+	+
Knowledge distance																			+	+					-	-
Geographic distance																			+	#					+	+
Global connectedness distance																			+	+					-	-
Subsidiary density from same home country													-	-			-	-								

P: Prediction; R: Result; + Increases probability of divestment; ∪ Curvilinear/non-linear effect; # Not significant; * Partial or weak support; 5a examines closure; 5b examines divestment

1. Park and Russo (1996)
2. Benito (1997)
3. Park and Ungson (1997)
4. Hennart et al. (1998)
5. Mata and Portugal (2000)
6. Park and Park (2000)
7. Delios and Beamish (2001)
8. Vermeulen and Barkema (2001)
9. Dhanaraj and Beamish (2004)
10. Mata and Portugal (2004)
11. Chung and Beamish (2005)
12. Villalonga and McGahan (2005)
13. Lu and Xu (2006)
14. Gaur and Lu (2007)
15. Makino et al. (2007)
16. Tsang and Yip (2007)
17. Xu and Lu (2007)
18. Dhanaraj and Beamish (2009)
19. Demirbag et al. (2011)
20. Mata and Freitas (2012)
21. Dai et al. (2013)
22. Pattnaik and Lee (2014)
23. Peng and Beamish (2014)
24. Mata and Portugal (2015)
25. Kang et al. (2017)

The review shows a high degree of diversity among the predictions for certain firm- and subsidiary-level variables. For instance, 'subsidiary age' was predicted to have a positive (Mata & Portugal, 2004), negative (Mata & Portugal, 2000), and ambiguous (Hennart, et al., 1998) impact on probability of FD. At the firm-level, 'host country experience' was examined in three studies, where it was found to have a positive (Gaur & Lu, 2007), negative (Delios & Beamish, 2001), and non-significant (Hennart, et al., 1998) impact on the probability of FD.

The review points out a high degree of ambiguity among the choice of variables for studies using similar theoretical frameworks. This finding was consistent across the country-level variables. This is particularly evident in the case of the institutional variables which have been operationalised as political and administrative distance (Pattnaik & Lee, 2014), political risk (Park & Park, 2000), regulative and distance (Gaur & Lu, 2007), openness of the country (Dhanaraj & Beamish, 2009) and unfavourable political environment (Dai, et al., 2013). The results for these variables were equally ambiguous where unfavourable institutional environment, unfavourable political environment, political distance, political openness, administrative distance and political risk were found to have a positive impact on FD; regulative and normative distances were found to have an ∪-shaped relationship with FD; political openness and social openness were weakly supported; and finally social openness was found to be non-significant.

Studies examining intangible assets owned by the MNE have incorporated a range of firm-level and IJV-level experiences. At the firm-level, international experience was examined by Benito (1997) and Park and Park (2000) and both predicted a negative impact on FD, but the results were non-significant. At the IJV-level, JV experience (Delios & Beamish, 2001; Park & Russo, 1996; Villalonga & McGahan, 2005) and JV experience with same partner (Park & Russo, 1996; Villalonga & McGahan, 2005) were examined in addition to parent firm's international experience (Makino, et al., 2007). With the exception of Park and Russo (1996), the remaining two studies found a negative relationship between JV experience and FD. The variable JV experience with the same partner gave mixed results. The variable 'recency of experience' was examined only by Villalonga and McGahan (2005). Considering the dynamism of the current economic and institutional environments, this variable could be investigated further in different industry and country contexts.

A final consistent finding across all studies is the paucity of subsidiary-level variables. The review suggests that only eight subsidiary-levels have been examined to date. This finding is paradoxical, since the dependent variable in most

studies is the hazard rate of the subsidiary. As a result, not many studies capture the relationship between subsidiary behaviour and its subsequent divestment.

3.3.3 Moderation effects

The predictions and findings of the moderation effects are presented in Table 5. The table is categorised into two parts based on the sample characteristics. The first half of the table provides the review on a mixed sample of FD studies. The other half of the table exclusively reviews IJV studies.

The review of the mixed sample shows that the most commonly analysed variable is 'host country experience' and the most commonly analysed variable in the IJV sample is 'equity ownership' which has been paired with a variety of other factors such as R&D and advertising intensity, cultural distance, political risk, host parent age and size amongst others. Furthermore, the majority of the studies have examined the moderation effect of an institutional variable with a firm-specific variable. This could be due to the fact that most of the studies base their argumentation in either the institutional theory or the location factor of the eclectic paradigm, in addition to the transaction cost/internalisation theory.

The review of IJV sample studies reveals that transaction cost/internalisation theory drives the majority of the predictions. For instance, variables such as R&D intensity, advertising intensity and asset specificity, point towards the transaction costs involved in forming the IJV. Their implications on IJV survival are the key to understanding the importance of resources commitment.

In Table 5 it can be observed that there is a great degree of inconsistency in the predictions. Very few interaction terms have been examined in more than one study. The only interaction term investigated by more than one study was Equity ownership×Host country experience (e.g. Gaur & Lu, 2007; Lu & Hebert, 2005). The prediction and results for this term, however, were different. For example, Lu and Hebert (2005) predicted a positive effect of Equity ownership×Host country experience but could not find significant support for their hypothesis. On the other hand, Gaur and Lu (2007) predicted a negative effect of Equity ownership×Host country experience and found support for their hypothesis. They argue that increase in experience enhances the incentive to increase the ownership commitment in the host country.

Table 5. Predictions and results: moderation effects

	1		2		3		4		5		6		7		8		9		10		11		12		13	
	P	R	P	R	P	R	P	R	P	R	P	R	P	R	P	R	P	R	P	R	P	R	P	R	P	R
Mixed sample																										
Host country experience×WOS							-	-																		
Host country experience×Economic distance																					-	-			-	-*
Host country experience×Financial distance																					-	-			-	-
Host country experience×Political distance																					-	-			-	-
Host country experience×Administrative distance																					-	-			-	#
Host country experience×Cultural distance																					-	-			-	-*
Host country experience×Demographic distance																					-	-			-	-
Host country experience×Knowledge distance																					-	-			+	-
Host country experience×Geographic distance																					-	-			-	#
Host country experience×Global connectedness distance																									+	-
International experience×Economic distance																									-	-
International experience×Financial distance																									-	-
International experience×Political distance																									-	-
International experience×Administrative distance																									-	-
International experience×Cultural distance																									-	#
International experience×Demographic distance																									-	-
International experience×Knowledge distance																									+	#
International experience×Geographic distance																									-	-
International experience×Global connectedness distance																									+	#
Acquisition×Economic distance																									-	-
Acquisition×Financial distance																									-	-*
Acquisition×Political distance																									-	#
Acquisition×Administrative distance																									-	#
Acquisition×Cultural distance																									-	-
Acquisition×Demographic distance																									-	-
Acquisition×Knowledge distance																									+	-
Acquisition×Geographic distance																									-	-*
Acquisition×Global connectedness distance																									+	-*
Host country institutions×Host country product diversity													+	+												
Host country product diversity×Product diversity													-	-												
Subsidiary density×Economic distance															-	-										
Subsidiary density×Economic freedom distance															-	-										
Foreign×Age																			-	-						
WOS×Regulative distance							-	-																		
Acquisition×High economic distance									-	#																
Greenfield×Low economic distance									-	-																
Host country distance×Global connectedness distance																					-	#				
Equity ownership×Long term orientation of host country																							-	-		
Cultural distance×Long term orientation of host country																							-	-		
Geographic distance×Long term orientation of host country																							-	#		
Labour cost growth×Economic uncertainty																	+	+								

	1		2		3		4		5		6		7		8		9		10		11		12		13	
	P	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**	**P**	**R**
IJV sample																										
Equity ownership×R&D intensity	-	-																								
Equity ownership×Advertising intensity	-	#																								
Equity ownership×Cultural distance	+	#																								
Equity ownership×Political risk	+	#																								
Equity ownership×Host country experience	+	#					-	-																		
Equity ownership×Industry experience	+	+																								
Host parent relatedness×Host parent age					-	-*																				
Host parent relatedness×Host parent size					-	-*																				
Foreign parent relatedness×Host country parent relatedness					+	+																				
Equity ownership×Normative distance							-	-																		
Uncertainty×Asset specificity			-	-																						
Economic distance×JV																					+	+				
Financial distance×JV																					+	+				
Political distance×JV																					+	+				
Administrative distance×JV																					+	#				
Cultural distance×JV																					+	+				
Demographic distance×JV																					+	+				
Knowledge distance×JV																					+	#				
Geographic distance×JV																					+	+				
Global connectedness distance×JV																					+	+				
Equity control×Parent technological knowledge											-	-														
Managerial control×Parent technological knowledge											-	-														
Equity control×IJV Product relatedness to parent firm											-	-*														
Managerial control×IJV Product relatedness to parent firm											-	#														

P: Prediction; R: Result; + Increases probability of divestment; # Not significant; * Partial or weak support

1. Lu & Hebert (2005)
2. Villalonga & McGahan (2005)
3. Lu & Xu (2006)
4. Gaur & Lu (2007)
5. Tsang & Yip (2007)
6. Xu & Lu (2007)
7. Delios et al. (2008)
8. Demirbag et al. (2011)
9. Belderbos & Zou (2009)
10. Mata & Freitas (2012)
11. Pattnaik & Lee (2014)
12. Peng & Beamish (2014)
13. Kang et al. (2017)

Amongst the predictions made for institutional variables, the mixed sample studies tend to predict a negative effect and IJV sample studies have predicted a positive effect on FD. Most of the predictions have received significant support. For instance, Pattnaik and Lee (2014) predicted a negative moderating influence of the host country experience on the relationship between cross-national distance and FD. Amongst the cross-national distance variables, they examined several institutional variables including political distance, administrative distance and cultural distance. The results for all three moderation effects were significant, suggesting that host country experience plays an important role in helping the firms overcome liability of foreignness and liability of newness, thereby improving the probability of survival in the host country.

3.4 Conclusions

This chapter reviewed 27 empirical works that have examined the antecedents to FD. The aim of this chapter was to synthesise and consolidate the findings of studies which used either of the following theoretical perspectives: (1) transaction cost/internalisation theory; (2) eclectic paradigm; and (3) institution-based view. The empirical review was segregated into two parts. The first part reviewed the direct effects examined by 25 studies. The second part reviewed moderation effects examined by 13 studies. The review identifies five limitations of the existing literature and suggests potential research avenues.

First, the review shows that most empirical studies use parent-level factors to examine the divestment of foreign subsidiaries. Although the parent firm plays a crucial role in investment and divestment decisions of its subsidiaries, the decisions concerning an individual subsidiary are significantly influenced by its performance and surrounding environment. Although recent studies by Chung et al. (2013b) and Song (2014a; 2014b; 2015) have included subsidiary-level variables such as its performance and size, empirical evidence on this front is still limited. This leaves a scope for future studies to explore the role of subsidiary-level characteristics in divestment decisions.

Second, while the majority of studies using an IJV sample have examined the impact of an establishment mode and ownership structure on FD, very few studies have integrated partnership related issues. Partnership conflict is a central theme to IJV dissolution. Although Steensma and Lyles (2000) examined this factor, they use the knowledge-based view and social exchange theory. Instead, this variable can also be examined using the transaction cost/internalisation theory. Hennart (1991) used the transaction cost approach to provide an explanation for partner

conflict in IJVs. He suggests that conflicts between partners arise when: (1) there is a transfer of poorly protected intangible resources from the parent firm to the IJV; (2) parent and subsidiary same trademark; and (3) the subsidiary exports the finished goods back to the parent firm's home country or to third countries. Recent studies have proposed that conflict between partners can arise from cultural dissimilarities and asymmetric alliance-specific investments (Das & Rahman, 2010; Lung-Tan, 2007). These variables are expected to impact the probability of IJV dissolution but are yet to be examined empirically.

Third, it was observed that industry-level factors are examined sparingly. One reason could be the choice of theories that makes it challenging to incorporate a certain set of variables. However, it is recommended that future studies can examine the role of industry-specific institutions. Certain industries are highly regulated and host country institutions play a key role in developing them. Therefore, the high degree of uncertainty in such industries can be expected to be problematic for foreign investors. Furthermore, a thorough cross-sectional analysis would enrich our knowledge about the behaviour of firms in a specific industry, whilst all other factors are held constant. For instance, there is a large variation in the innovation activities amongst manufacturing industries – some are characterised by a high innovation activity, whilst others focus more on scale production.

Fourth, the majority of the interactions were between a firm-specific variable and a country-specific variable. Future studies could examine the moderating role of a country-specific variable on the relationship between another country-specific variable and probability of FD. For example, the institutional environment of a country may not be stable, but the economic conditions may be promising for steady business development. This is a common feature of emerging economies wherein their institutional environments are not as stable as those of advanced economies, yet they are one of the largest economies in the world. It could be expected that such interaction terms could help us gain deeper insight into the influence of country-level factors on FDI behaviour. The results of such studies could also be useful for the policy makers in enabling the country to be more attractive and conducive for foreign businesses.

Finally, the review points towards the paucity of research on emerging and other advanced economy firms. Current economic trends tend suggest a rapid internationalisation of firms from countries like China and India. MNEs from these countries have unique ownership advantages and their internationalisation strategies are different from their counterparts from advanced economies (Bruche,

2009). These countries are also witnessing an increasing amount of mutual investment, especially between China and India, China and Russia, India and Russia. It can be expected that the increase in FDI between these countries also results in a considerable number of divestments. The causes of which, are expected to be different from those related to divestments of advanced country MNEs.

It was observed that the FD literature has heavily focused on divestments by Japanese, Korean and American firms. A few exceptions that include studies on British and New Zealand based firms only partially extend our knowledge on foreign divestments by advanced economy firms. For instance, the studies on British firms have either been on domestic divestments (Baden-Fuller, 1989), or divestments in the retail sector (Alexander & Quinn, 2002; Palmer, 2004; 2005). The study by Hamilton and Chow (1993) was based on a sample of New Zealand based firms. However, since their framework was driven by corporate portfolio theory, their findings provide a limited understanding on the macroeconomic factors that may impact FD decisions. In order to extend our knowledge about the interaction of the MNE with its external environment and its implications for FD, it is essential for future works to examine FDI behaviour of MNEs from other advanced economies.

4 RESEARCH FRAMEWORK

The purpose of this chapter is to establish the research framework for further empirical investigation. It begins by developing the research model and underpinning the main theoretical constructs. Next, it presents the hypotheses to examine the relationship between cross-national distance (economic and institutional distances) and foreign divestment. Following on, the chapter presents the hypotheses to examine the moderating role of ownership advantages and entry strategies.

4.1 The model

The research model is presented in Figure 6. It is designed to examine the impact of cross-national distance on foreign divestments and the capability of the firms to overcome the distance using their unique ownership advantages and entry strategies. Accordingly, the main constructs of the model are: (1) cross-national distance (economic and institutional distances); (2) ownership advantages; and (3) entry strategies.

The hypotheses examining the role of economic distance have been developed using the eclectic paradigm and transaction cost/internalisation theory. The main arguments concerning institutional distance have been derived from IBV and partly supported by the location advantages of the eclectic paradigm. The moderating role of ownership advantages has been examined using the eclectic paradigm; and the moderating role of entry strategies has been examined using the transaction cost/internalisation theory.

4.2 Economic distance and foreign divestment

Economic development, generally measured as GDP per capita (Demirbag, et al., 2011), is an important parameter which determines the MNEs' FDI strategies. Scholars have argued that MNEs use the exploitation strategy in less developed economies and exploration strategy in more developed economies (Makino, et al., 2002; Tsang & Yip, 2007). In the present study, the BRIC countries, whose economic development is lower than the Nordic countries, are ideal for resource exploitation purposes.

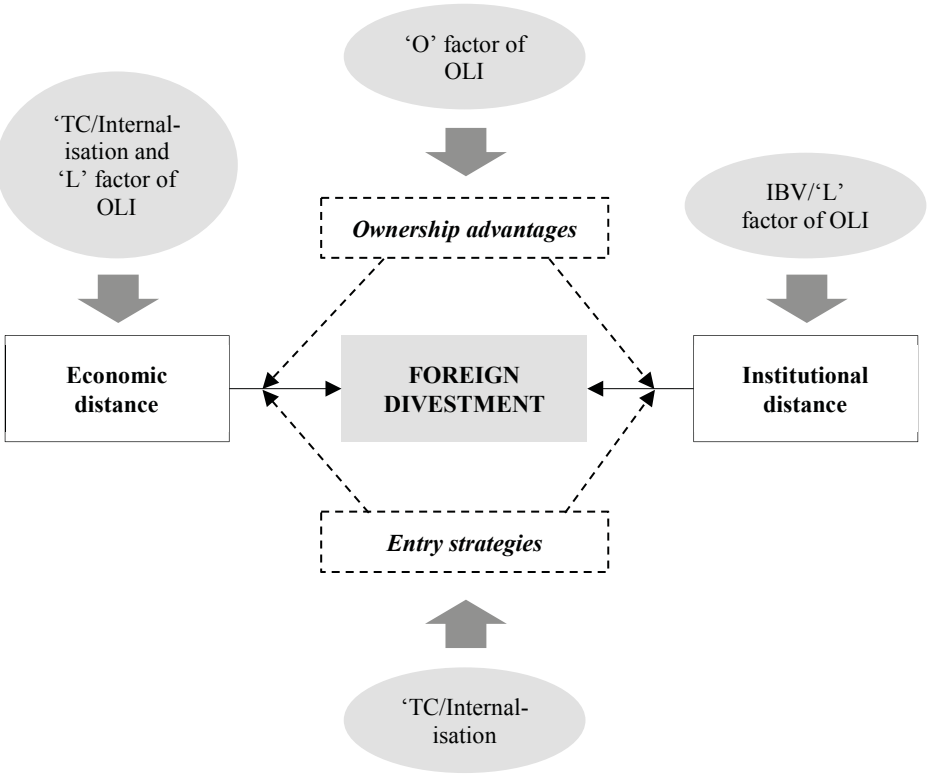


Figure 6. Theoretical underpinning for key constructs

Dunning (1993) argues that the MNEs' capability of exploiting their ownership advantages in foreign markets depends on the strength of these advantages vis-à-vis those of existing firms in the host country. Firms from developed economies, such as the Nordics, are likely to have high ownership advantages due to the highly advanced technological infrastructure. The BRIC economy firms, on the other hand, face the problems of developing their ownership advantages independently due to the underdeveloped technological infrastructure. Thus, the Nordic firms will have a competitive advantage over the BRIC firms and would continue to exploit their ownership advantages. Furthermore, the governments of emerging economies offer a numerous incentives to attract inward FDI with the intention to boost national income (Görg & Greenaway, 2004); to absorb knowledge and technology to benefit the domestic firms (De La Potterie & Lichtenberg, 2001; Fu, et al., 2011; Haskel, et al., 2007); and to mobilise the labour (Meyer, 2004). Therefore, as the differences in levels of economic development increase, we can expect a decrease in the probability of divestment. This leads to the following hypothesis:

Hypothesis 1a. There is a negative relationship between differences in levels of economic development and foreign divestment.

Factor cost differentials are a primary source of economic arbitrage (Ghemawat, 2001; 2007) and are likely explanatory factors influencing the flow of FDI from advanced economies to emerging economies. According to the eclectic paradigm, MNEs prefer to invest in a country that offers a low-cost advantage over other countries (Dunning, 1998). Moreover, MNEs are known to relocate selective activities to tap low-cost inputs such as raw materials, capital and technical knowledge (Porter, 1994). Studies have suggested a positive correlation between low factor costs and location decisions of firms. For instance, Shamsuddin (1994) found that location-specific advantages such as wage costs, energy imports and financial aid from capitalist economies positively impact inward FDI in less developed economies. Demirbag and Glaister (2010) found a positive relationship between the rise in the home country wage rate and the firms' decision to relocate to low-cost countries. Similarly, Duanmu (2014) found that the low labour standards of the emerging economies generate short-term cost benefits that attract inward FDI. Furthermore, differences in tax structures and exchange rates have been suggested to have a significant impact on FDI decisions (Bellak & Leibrecht, 2009; Demirbag, et al., 2011; Tsang & Yip, 2007).

The arbitrage opportunities offered by the BRIC countries will be high due to the low factor costs. Therefore, they can be considered as an ideal FDI location for Nordic MNEs to exploit their ownership advantages and attain a position of competitive advantage. Furthermore, since low factor costs reduce production costs and increase the profit margin per unit of production, the probability of divestment in the BRICs will be low. This leads to the following hypothesis:

Hypothesis 1b. There is a negative relationship between factor cost differentials and foreign divestment.

The negative relationship between economic distance (differences in levels of economic development and factor cost differentials) foreign divestment is demonstrated in Figure 7.

4.3 Institutional distance and foreign divestment

Institutional distance captures the differences in the institutional environments of two countries (Kostova, 1999). According to North (1990), firms follow the formal and informal institutional structures to interact with their environment. The differences in these formal and informal institutional structures may create arbitrage opportunities or increase costs in conducting business.

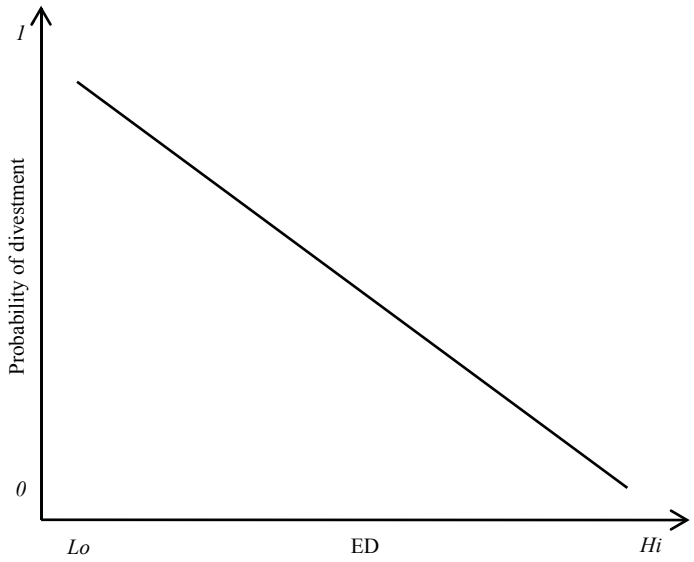


Figure 7. Relationship between ED and FD

On the one hand, institutional distance has the potential to create economic gain (Ghemawat, 2007). Scholars have suggested that formal institutions, if formulated and implemented systematically, can create a conducive environment for economic growth. MNEs prefer to invest in countries that offer better institutional structures (Bénassy-Quéré, et al., 2007); more specifically for the protection of intellectual property rights and contract enforcement (Du, et al., 2008). This is because the efficiency of transferring and allocating resources in a foreign country largely depends on government policy decisions (Hymer, 1970). Countries with a safe intellectual property rights protection system were found to attract a greater volume and scale of FDI (Lee & Mansfield, 1996; Seyoum, 1996); and countries with a weak intellectual property rights protection system were found to deter FDI (Javorcik, 2004). Empirical evidence also suggests that tax differences have a significant impact on the flow of FDI (Gorter & Parikh, 2003). Marginal reduction in tax rates, especially in emerging and transition economies, was found to significantly increase the flow of FDI (Bellak & Leibrecht, 2009). Some studies have also suggested that informal institutions can be beneficial for FDI. Luo (1997a) for example, argues that the personal networks (Guanxi) play a major role in inward FDI growth in China. Therefore, the distance between these institutions can be expected to have a positive impact on FDI performance, and alternatively a negative impact on foreign divestment.

On the other hand, institutional distance is known to increase marginal costs. Certain aspects of informal institutions, such as bribery and corruption, create obstacles in doing business efficiently. Empirical evidence has suggested that lack

of transparency and a high corruption rate within governance structures are known to deter FDI (Gaviria, 2002). Another factor, which is associated with the institutional structures of the host country, is the liability of foreignness. Hennart et al. (2002) suggested that liability of foreignness was an important aspect in the Japanese MNEs' decision to withdraw from the American market. Since the institutional distance necessitates learning, foreign firms are at a disadvantage against their domestic peers. In order to overcome the liability of foreignness and attain a position of competitive advantage in the host country market, MNEs invest their resources in knowledge acquisition activities that can result in increased marginal costs. As the institutional distance increases, the costs associated with overcoming the distance inflate to an extent that compels the MNEs to withdraw their operations from the market. Therefore, the probability of divestment, in this case, is positively related to the institutional distance.

Taking into consideration the arbitrage effects and marginal costs associated with institutional distance, this study proposes a ∪-shaped relationship between institutional distance and foreign divestment. The curvilinear relationship between institutional distance and foreign divestment, as demonstrated in Figure 8, is such that probability of divestment initially decreases with an increase in the institutional distance because higher the distance, greater will be the arbitrage opportunities. However, as the institutional distance increases beyond the optimal point, such that the costs of operating in the market outweigh the locational advantages, MNEs' find it increasingly difficult to operate their subsidiary profitably. Hence, the probability of divestment will increase with an increase in the institutional distance. This leads to the following hypothesis:

> *Hypothesis 2. There is a U–shaped relationship between institutional distance and foreign divestment.*

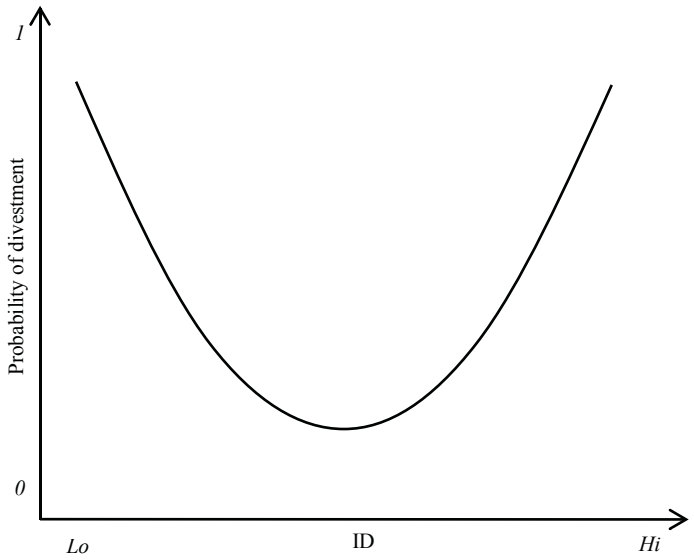


Figure 8. Relationship between ID and FD

4.4 Moderating role of ownership advantages

This study examines the moderating role of following three ownership advantages: (1) host country experience; (2) R&D intensity; and (3) financial performance. It has been argued that firms with higher ownership advantages will be capable to inhibit the negative effects of cross-national distance on subsidiary survival. Figure 9 summarises the research model of ownership advantages as moderating factors.

4.4.1 Host country experience

Host country experience is an important ownership advantage that plays a crucial role in subsidiary survival. Lack of experience is often related to hazards of uncertainty (Henisz & Delios, 2001), liability of foreignness (Zaheer, 1995) and problems obtaining organisational legitimacy (Kostova & Zaheer, 1999). MNEs are at a disadvantage in a distant country since their understanding of the local culture, institutions and economic environment are weaker than that of other domestic firms. Therefore, longer market presence enables a firm to overcome the liability of foreignness (Peng, 2001) and obtain organisational legitimacy (Zaheer & Mosakowski, 1997).

Host country experience contributes to the development of new skills and capabilities that influence the MNEs' strategies and performance (Barkema, et al.,

1996; Delios & Beamish, 2001). It helps firms to develop their knowledge about the institutions, culture, economy, competitive environment and business cycles within the country (Luo, 1997b). Country-specific knowledge improves the efficient transfer of resources between the headquarters and its subsidiary (Kostova, 1999) and is known to induce cost savings (Luo & Peng, 1999).

Host country experience is also known to influence MNEs' location patterns. For instance, Davidson (1980) suggests that firms, which are active in a particular market, are likely to make additional investments in the same market rather than in new markets. Similarly, Lu et al. (2014) argue that prior host country experience may encourage firms to further expand their operations to achieve economies of scale in that country. This suggests that host country experience has a positive influence on the parent firm's long-term orientation because it is often associated with the development of certain capabilities that can be utilised for further expansion as more time is spent in the market. Hence, it can be assumed, that the firm's experience in the host country inhibits effects of cross-national distance. This leads to the following hypotheses:

Hypothesis 3a. Host country experience will have a negative moderating influence on the relationship between economic development and foreign divestment.

Hypothesis 3b. Host country experience will have a negative moderating influence on the relationship between factor differentials and foreign divestment.

Hypothesis 3c. Host country experience will have a negative moderating influence on the relationship between institutional distance and foreign divestment.

4.4.2 R&D intensity

Intangible assets are the cornerstone of MNEs' motivation to expand beyond national borders (Dunning, 1980; 2000). Intangible assets such as knowledge, experience and unique capabilities are important ownership advantages that give firms a competitive advantage over their counterparts in foreign markets. The previous section highlighted the importance of experience to overcome cross-national distance. Lack of experience may put firms at a disadvantage when entering distant markets. However, this disadvantage may be overcome by

investing in R&D activities to procure essential knowledge about the new market and its competitive environment.

The R&D intensity of a firm can be categorised as product related (technological) and market- related R&D. Product-related R&D includes investment in patents, trademarks and licenses. These intangible assets enable the firm to improve its performance and achieve a competitive position in the market (Riahi-Belkaoui, 2003). It also helps the firm reduce manufacturing costs by achieving scale economies through its technological expertise and by charging a premium for its innovative products (Kotabe, et al., 2002).

Market-related R&D is concerned with acquiring knowledge about the institutions, economic performance, competitors, customers and supply chain in the host country. Scholars have argued that knowledge concerning foreign markets and competition improves the overall performance in the host country (Krasnikov & Jayachandran, 2008; Yli-Renko, et al., 2002). Thus, firms that invest heavily in market-related R&D, are in a position to formulate a strategy and inhibit the effect of cross-national distance. Overall, R&D capabilities, due to their wealth yielding properties and their ability to provide firms with an insight into the foreign markets, can prove useful in reducing the costs that arise from cross-national distance and thus reduce the probability of divestment. This leads to the next hypothesis:

Hypothesis 4a. R&D intensity will have a negative moderating influence on the relationship between economic development and foreign divestment.

Hypothesis 4b. R&D intensity will have a negative moderating influence on the relationship between factor cost differentials and foreign divestment.

Hypothesis 4c. R&D intensity will have a negative moderating influence on the relationship between institutional distance and foreign divestment.

4.4.3 Financial performance

As discussed previously, intangible assets are crucial for firm internationalisation and subsidiary survival in foreign markets. In addition to these, financial performance (or profitability) is also an important determinant of the firm's success. Profitability might be a good indicator of firm performance because it represents the level of success of the firm in generating resources from its business activities, and its ability to sustain and grow those activities (Bercovitz & Mitchell,

2007). Higher profitability is also an indicator of the firm's control over the price and quality structure of its product (Shapiro, 1983). Therefore, the financial performance of the firm can be an important ownership advantage and could help a firm inhibit cross-national distance and prolong subsidiary survival.

Scholars have argued that subsidiaries with financially strong parent firms perform well in foreign markets (Nguyen & Rugman, 2015) and have a higher growth potential (Carpenter & Petersen, 2002). There is sufficient empirical evidence supporting the positive relationship between poor financial performance and divestment decisions. For instance, Duhaime and Grant (1984) found that divestment decisions were generally made when the firm's financial performance was lower than its competitors. This could probably be explained by the firm's inability to generate enough profits and supply necessary finances to its subsidiary in order to sustain the competition. Honjo (2000) found that the financial strength of the firm had a negative effect on the failure of new investments. He argues that financial strength is an indicator of size, and is directly linked to success and failure of the firm. Musso and Schiavo (2008) found that financial constraints affect the overall efficiency of the firm and reduces survival.

Supporting the proposition that profitable firms can perform well in emerging markets, Desai (2008) argues that MNEs exploit their internal capital markets to gain a competitive advantage over local firms because raising external capital in emerging markets is often costly. He further suggests that if MNEs divert their internal capital to emerging markets, it will help the subsidiary gain both market share and political capital. In the initial stages of FDI, the foreign subsidiary tends to rely on its parent firm for a wide range of resources including finances (Li, 1995). Therefore, a financially strong firm would be in a better position to provide the necessary resources to the subsidiary to establish the business efficiently. Moreover, high profitability may also provide the necessary resources for the firm to engage in innovation and R&D activities (Esteve-Pérez & Mañez-Castillejo, 2008). This increases the importance of finances exponentially, especially for firms investing in distant countries. Based on this discussion, it can be argued that firms with high financial performance will have the necessary capital to cover additional costs arising from cross-national distance. This leads to the following hypotheses:

> *Hypothesis 5a. Financial performance will have a negative moderating influence on the relationship between economic development and foreign divestment.*

Hypothesis 5b. Financial performance will have a negative moderating influence on the relationship between factor cost differentials and foreign divestment.

Hypothesis 5c. Financial performance will have a negative moderating influence on the relationship between institutional distance and foreign divestment.

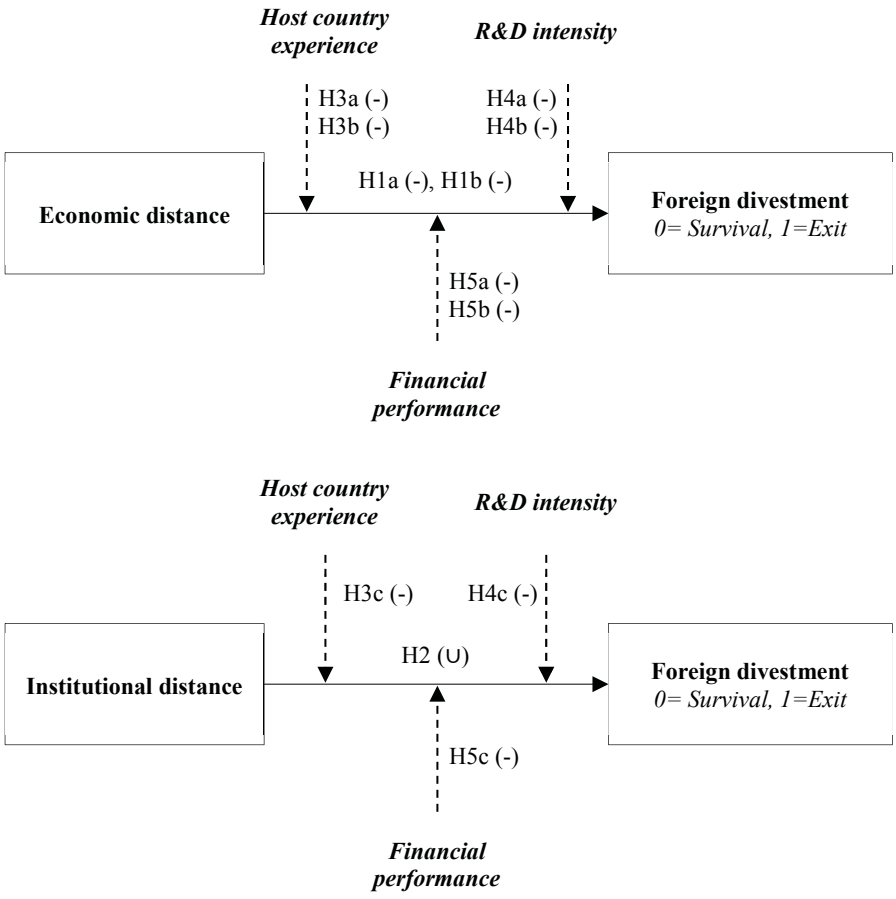


Figure 9. Research model for moderating influence of ownership advantage

4.5 Moderating role of entry strategies

This study examines the moderating role of the following two types of entry strategies: (1) establishment mode; and (2) ownership mode. Predictions are directed to understand the extent to which the entry strategies influence the

relationships between foreign divestment, economic distance and institutional distance. Figure 10 summarises the research model of entry strategies as moderating factors.

4.5.1 Establishment mode

Before establishing a foreign subsidiary, MNEs have to carefully analyse the scope of exploiting their ownership advantages (Harzing, 2002) and the strategic fit offered by the new subsidiary (Datta, 1991). The host country environment plays an important role in establishment mode decisions. For instance, institutional theorists emphasise the importance of organisational legitimacy in the host country (Kostova, 1999; Kostova & Zaheer, 1999). Scholars have argued that acquisitions provide an easy alternative for attaining legitimacy in the host country and overcoming the liability of foreignness (Hennart, et al., 2002; Pennings, et al., 1994). By acquiring an existing unit, foreign firms gain access to the knowledge and capabilities of the existing unit (Inkpen, 1998). The parent firm can significantly reduce its liability of foreignness arising from cross-national distance by allowing autonomy to the acquired unit to manage its foreign operations (Slangen & Hennart, 2008). Acquisitions are the preferred entry modes in low growth industries since they do not add capacity (Hennart & Park, 1993). Moreover, acquisitions allow access to new capabilities and are preferred by firms who find it difficult to develop their own competencies (Rui & Yip, 2008).

Acquisitions, however, have certain limitations that may have a negative effect on subsidiary survival in distant countries. Acquired units are difficult and costlier to integrate (Hennart, et al., 1998; Slangen & Hennart, 2008). Although acquisitions are functioning units and uncertainty is low, they require full resource commitment at the beginning of the project unlike greenfield investments where resources are committed incrementally (Brouthers & Dikova, 2010; Pacheco-De-Almeida, et al., 2008). Acquiring an existing business is also a challenging activity due to the risk and uncertainty surrounding the management of existing operations under new ownership (Luo & Rui, 2009). The potential clashes between a culturally distant parent firm and its acquired unit can inhibit efficient knowledge transfer (Barkema & Vermeulen, 1998). Acquisitions made in distant countries can be risky investments because they provide limited flexibility to the MNEs to develop and implement their strategies, and can accentuate the adverse effects of cross-national distance (Barkema & Vermeulen, 1997; Eden & Miller, 2004). Investing in a distant country requires long-term strategising and acquisitions may not be the ideal establishment mode in such countries for the

reason that parent firms tend to be less attached to acquired units (Hennart, et al., 1998). Moreover, acquisitions made in an institutionally distant country are viewed as a 'blow to national sovereignty' (Xu & Shenkar, 2002, p. 613); and thus can be expected to strengthen the impact of cross-national distance on foreign divestment.

Greenfield investments, on the other hand, have certain advantages that may help MNEs overcome distance and reduce the probability of foreign divestment. Empirical studies have shown that firms with strong ownership advantages prefer greenfield entries, presumably because it is the most efficient way of transferring their advantages (Hennart & Park, 1993). Several scholars have argued that greenfields are preferred establishment modes in distant countries (Cho & Padmanabhan, 2005; Kogut & Singh, 1988). Greenfield entries are also preferred in countries with high economic growth, because high market demand reduces the interdependence of new entrants on existing firms and provides more flexibility to implement their strategies (Zejan, 1990). In sum, greenfield investments will have a negative, and acquisitions will have a positive moderating influence on the relationship between cross-national distance and foreign divestment, such that acquisitions made in distance markets will have a higher probability of divestment than those made in less distant countries. This leads to the following hypotheses:

Hypothesis 6a. Establishment by acquisition will have a positive moderating influence on the relationship between economic development and foreign divestment.

Hypothesis 6b. Establishment by acquisition will have a positive moderating influence on the relationship between factor cost differentials and foreign divestment.

Hypothesis 6c. Establishment by acquisition will have a positive moderating influence on the relationship between institutional distance and foreign divestment.

4.5.2 Ownership mode

Empirical research on ownership mode has suggested that JVs are preferred when the distance between countries is high and firms are keen to overcome the liability of foreignness (Luo, et al., 2002). Entering into a JV agreement with a local partner facilitates linkages to local resources that would otherwise be expensive and

difficult to procure (Inkpen & Beamish, 1997; Luo, 2002). Furthermore, JVs allow firms to exchange tacit knowledge, which otherwise is expensive to acquire and cannot be obtained from external consulting (Hennart, 1988). Therefore, JVs are preferred ownership modes in distant countries where risks are high and foreign entrants are seeking to subdue the uncertainties.

Despite their advantages, JVs have certain limitations that may increase the probability of divestment in distant countries. JVs are highly unstable operation modes because the internal transaction costs that arise from shared ownership and incomplete contracting are high (Pearce, 1997). The structural arrangement and shared ownership are likely causes for inter-partner conflict (Morris & Cadogan, 2001), especially when the partners are from distant countries (Demirbag, et al., 2003). As the distance between countries increases, finding a trustworthy partner becomes difficult and requires a higher degree of coordination efforts (Gomes-Casseres, 1990). The shared nature of the JV also makes it easier to sell the stakes to the partner, thereby increasing the ease at which JV can be dissolved (Hennart, et al., 1998; Park & Park, 2000).

In the case of WOS, however, there is no partner conflict and the foreign firm is in a position to transfer its ownership advantages efficiently to enhance subsidiary performance. This gives the parent firm strategic flexibility to tackle external problems associated with changes in the host country environment (Gaur & Lu, 2007). A WOS can also be an efficient way to overcome the liability of foreignness because it allows free transfer of power from the headquarters to the subsidiary and facilitates alliances with local partners through 'face to face contact' (Chen, 2006).

Firms' choice of ownership mode is also linked to the transaction involved. Typically, high equity ownership modes are preferred when uncertainty in the host country increases and the assets involved in the subsidiary become highly specific to the transaction (Yiu & Makino, 2002). Hence, it can be assumed that WOS as an ownership mode has a negative moderating influence on the impact of host country hazards on subsidiary divestment.

Overall, this discussion suggests that MNEs are more likely to prefer a higher degree of control in distant markets in order to implement their strategies, achieve their goal and overcome environmental hazards. Therefore, JV as an ownership mode will have a positive moderating influence on the relationship between cross-national distance and foreign divestment. This leads to the following hypotheses:

Hypothesis 7a. JV as an ownership mode will have a positive moderating influence on the relationship between economic development and foreign divestment.

Hypothesis 7b. JV as an ownership mode will have a positive moderating influence on the relationship between factor cost differentials and foreign divestment.

Hypothesis 7c. JV as an ownership mode will have a positive moderating influence on the relationship between institutional distance and foreign divestment.

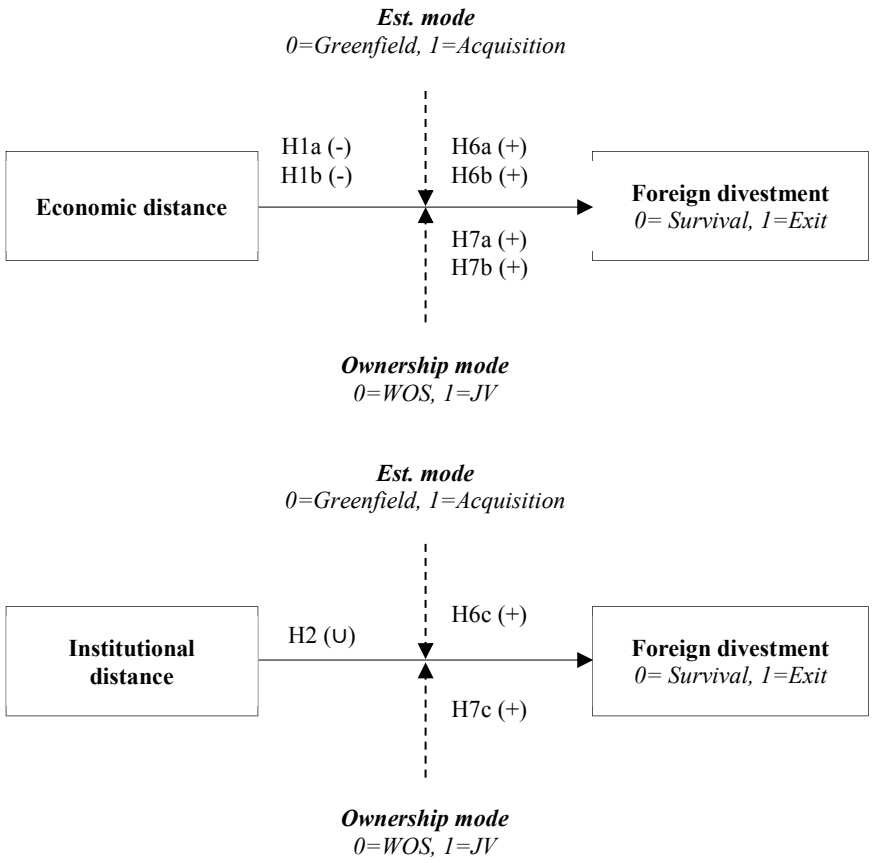


Figure 10. Research model for moderating influence of entry strategies

5 RESEARCH METHODOLOGY

This chapter is dedicated to explaining the research design and methodology adopted in the study. It begins by establishing the link between empirical design and research setting. Next, the chapter discusses the data sources and sampling procedure. Following on, the chapter explains the operationalisation of variables and computation of the distance measures. The chapter concludes by evaluating the validity and reliability of the research methodology.

5.1 Research design

Research design is a general plan that relates the framework and hypotheses to the data. It gives a brief overview about the type of research (inductive vs deductive), sources of data (primary vs secondary), tools for data collection (questionnaire, survey), method of analysis (qualitative vs quantitative) and statistical details (regression, SEM, factor analysis). Following three types of research designs can be identified based on the nature of the research question and the problem structure: (1) exploratory; (2) descriptive; and (3) causal.

Exploratory research design is mainly used for theory building, especially when the research problem is poorly understood or underexplored. Descriptive research is used when the problem is structured and is well understood. In causal research, one variable may directly or indirectly influence others (Bordens & Abbott, 2002). Causal research design can be further classified as: (1) causal-exploratory; and (2) causal-predictive. A causal-exploratory study is concerned with learning why and how one variable influences the other. In a causal-predictive approach, the effect of one variable is predicted manipulating the other variable by holding all others constant. Causal relationships are different from correlational relationships. In a causal relationship, variable A influences variable B but not vice-versa. However, in a correlational relationship, variable A and variable B may change at the same point of time either with or without directly influencing the change in each other. The present study uses a research design formulated on the following four criteria: (1) nature of research; (2) research approach; (3) type of data; and (4) data analysis. A summary of the research design is presented in Table 6.

Nature of research

Quantitative research is a systematic investigation of observable events using statistical or mathematical techniques (Given, 2008). It is appropriate for the present study, for the following two reasons. First, since quantitative research can mitigate researcher bias and is suitable for theory testing (Cooper & Schindler, 2011) it would be a suitable methodology for bridging the gaps in the existing literature. Second, it can enable the researcher to establish an empirical connection between the main event of observation (e.g. foreign divestment) and the explanatory factors (e.g. economic or institutional distances).

Research approach

Inductive and deductive are two approaches for answering a research question. An inductive approach is concerned with observing an event and then contributing to a theory based on the observations (Hyde, 2000). A deductive approach is concerned with applying an existing theory to develop a set of hypotheses and later testing them using a pre-defined research methodology (Wilson, 2010). This study uses a deductive research approach with hypotheses developed from the existing literature and later tested using secondary data.

Type of data

In the present study, the choice between primary and secondary data was influenced by the research topic and availability of data. Primary data on divestments is rare and as indicated by previous studies, managers are hesitant in sharing information related to such events. Moreover, the firm-level and country-level secondary data is readily available from various sources, which is a time-saving alternative to primary data collection. Therefore, secondary data sources were deemed suitable for the present research.

Data analysis

The data analysis is conducted using survival analysis technique. Survival analysis is a branch of statistics that is concerned with analysing time to the occurrence of a certain event (Cleves, et al., 2002). There are several statistical models available to conduct survival analysis such as Kaplan-Meier estimation, Weibull regression, Cox's proportional hazard model (CPHM) and log-normal regression. The CPHM is by far the most commonly used statistical model in foreign divestment studies. Following Demirbag et al. (2011), Dhanaraj and Beamish (2004), Gaur and Lu

(2007), Hennart et al. (1998), and Tsang and Yip (2007), this study uses the CPHM.

Table 6. Summary of research design

Criteria	Characteristic
Nature of research	Quantitative
Research approach	Deductive
Type of data	Panel secondary
Data analysis	Survival analysis (CPHM)

5.2 Data source and sample description

5.2.1 Data source

FDI data

The empirical investigation of this study is based on panel data of Nordic FDI in BRIC countries. This data was compiled from the internal databank at the International Business and Marketing Strategies research group at the University of Vaasa. The databank is based on manufacturing industries and includes information on establishment mode, ownership mode, total sales, firm size, firm performance and industry. It provides information on approximately 7000 Nordic firms. Primary data sources used to compile the databank are company annual reports, business magazines, press releases and first-hand information provided by firms. The databank is regularly updated to report changes across firms and industries. This enriches the quality of data and tackles the issues related to data redundancy. The information on exits was ascertained from stock announcements, company websites and articles in business journals. In certain cases, where divestment information was not available, exits were identified by comparing the entries in the database for consecutive years. Using this method a subsidiary was considered to be divested, if it did not appear in the later entries of the database.

Financial data

Firm-level financial data was collected from Thomson Reuters Worldscope database. The Worldscope database contains financial information of firms from over 75 countries. As of 2010, the database contained about 61,800 firms across the globe. The database not only contains active firms but also contains extinct or inactive firms (Thomson Reuters, 2013). Its extensive content includes financial statements, analytics ratios, acclaimed standardisation and methodology, per-share information, twelve-month statement summary, segmented data and operating metrics (Thomson Reuters, 2016). Data search on Nordic firms returned a rich database, albeit with certain missing financial information. The missing financial information was assembled from annual reports directly accessed from company websites. In the case of Finnish firms, the Yrityshakemisto database (Aalto University) provided access to company annual reports. Further manual search was conducted on archived annual reports (both paper and online versions) available at the University of Vaasa.

Country data

Country-level data was assembled using the following two sources: (1) UNCTADStat [2] ; and (2) World Competitiveness Yearbook 1995-2015. UNCTADStat is the official databank of UNCTAD and provides free access to more than 150 indicators and statistical time series. UNCTADStat has adopted a strong data browsing system and follows common rules and clear methodology to compile several basic and derived indicators. The statistical series are regularly updated with a unique coverage for several products and countries, and special focus on developing and transition economies (UNCTAD, 2017). The World Competitiveness Yearbook is an annual report published by IMD (International Institute for Management Development) that reports economic and institutional performance of 63 countries based on more than 340 criteria. The report is compiled from country rankings, country profiles and statistical tables (World Competitiveness Yearbook, 2016).

5.2.2 Sample characteristics

The time-period of observation for this study was 1990-2015. A long time-period is ideal to study the economic and institutional systems since they are subject to

[2] From UNCTADStat, by United Nations Conference on Trade and Development, ©2016 United Nations. Reused with the permission of the United Nations (see Appendix 2).

change and take a considerable time in revealing their true features. The time period 1990-2015 captures several significant political and economic events, especially in the BRIC countries such as dissolution of the Soviet Union (1991), liberalisation of the Indian economy (1991), second Chechnya war (1999-2000), Chinese stock bubble (2007), economic contraction in Brazil (2011-present), and annexation of Crimea and war in Donbass (2014-present). In addition to these events, the time-period also captures the 2008 financial crisis – an event which severely affected global trade and investment.

The panel data was restricted to investments made between 1990-2013 and divestments made between 1992-2015. Introducing these restrictions has two advantages. First, it ensures that all investments included in the sample were surviving for a minimum of two years and thus restricts sample bias arising from the honeymoon effect. Second, it accounts for both left and right censoring issues. The final sample, after introducing the restrictions, included 191 divestments out of 906 FDIs made by 311 Nordic firms. The general distribution of sample is provided in Table 7.

Table 7. General distribution of the sample

Home \ Host		Brazil	China	India	Russia	Total
Denmark	*n*	25	93	56	26	200
	Exits	7	5	7	4	23
	%	28	5.38	12.50	15.38	11.50
Finland	*n*	33	127	31	116	307
	Exits	10	27	7	30	75
	%	30.30	21.26	22.58	25.86	24.43
Norway	*n*	18	33	12	23	86
	Exits	7	16	4	15	42
	%	38.89	48.48	33.33	65.22	48.84
Sweden	*n*	41	149	49	74	313
	Exits	8	14	11	18	51
	%	19.51	9.40	22.45	24.32	16.29
Total	*n*	117	402	148	239	906
	Exits	32	62	29	67	191
	%	27.35	15.42	19.59	28.03	21.08

n-Number of investments; %-Exit rate

FDI and divestment characteristics

Among the 906 Nordic FDIs, 313 were from Sweden, followed by 307 from Finland, 200 from Denmark, and 86 from Norway. At the host country-level,

China was the most preferred choice for FDI directed from Nordic countries. Of the 906 FDIs, 402 were made in China, 239 in Russia, 148 in India, and 117 in Brazil.

Exit rate for the whole sample was 21.08%. At the home country-level, the overall exit rate was highest for Norwegian FDI (48.84%), followed by Finnish (24.43%), Swedish (16.29%) and Danish FDI (11.50%). At the host country-level, Russia had the highest exit rate of 28.03%, followed by Brazil (27.35%), India (19.59%) and China (15.42%).

On an average, Norwegian FDI had a higher exit rate than other Nordic FDI, the highest being 65.22% for investments in Russia. Danish FDI, on the other hand, had a lower average exit rate, with the lowest being 5.38% for investments in China.

Establishment and ownership mode characteristics

Out of 906 subsidiaries, 604 were greenfields and 302 were acquisitions. At the home country-level, Danish and Finnish MNEs tend to prefer greenfields over acquisitions, and Norwegian and Swedish MNEs show a preference for acquisitions. At the host country-level, greenfield investments were preferred in all countries except Brazil. The exit rate for acquisitions (27.48%) was higher than for greenfields (17.88%).

Out of 906 subsidiaries, 502 were WOSs and 404 were JVs. WOS was the preferred ownership mode by Danish and Finnish MNEs whereas Norwegian and Swedish MNEs showed a preference for JV. At the host country-level, WOS was the preferred ownership mode. The exit rate for JVs (26.98%) was higher than for WOSs (16.33%).

Industry characteristics

Industry characteristics were identified using the SIC (Standard Industrial Classification) system. Firm-level SIC codes are available on company websites and annual reports with the manufacturing sector being represented by SIC codes between 2000 and 3999.

The SIC distribution of the sample is provided in Table 8. The five most frequently represented industries were FDIs found in, industrial machinery (148), the electronics industry (27), food and kindred (99), chemical (89) and paper and pulp (74). The five least represented industries were textile (13), furniture and fixtures (11), printing and publishing (10), coal and petroleum (3), and leather (1). There

were no investments in tobacco industry (SIC 21) and apparel industry (SIC 23). The exit rate among the five most frequently represented industries was highly fragmented. The highest exit rate was in the food and kindred industry (37.37%), followed by electronics (26.77%), chemical (25.84%), paper and pulp (17.57%), and industrial machinery (10.14%).

Time characteristics

The time-period of 1990-2015 was split into the following three intervals: (1) 1990-1999, (2) 2000-2006, and (3) 2007-2015. With 322 new investments (average 53.7 per year), Nordic MNEs were most active between 2000-2006. Between 1990-1999, Nordic MNEs invested in 451 subsidiaries at an average rate of 45 investments per year. What can be considered as the after-effect of the 2008 financial crisis, the rate of investments declined significantly to 17 per year during 2007-2015.

5.3 Variables

5.3.1 Dependent variable

The dependent variable in this study is the probability of foreign divestment and is operationalised as a binary variable where 0 equals survival and 1 equals divestment. Dichotomising the dependent variable according to the survival status of the unit is the most common method used in survival analysis (Cox & Oakes, 1984). This way of operationalising the dependent variable has been adopted by several divestment studies such as Belderbos and Zhou (2006), Chung and Beamish (2005), Chung et al. (2013a; 2013b), Dai et al. (2013), Delios et al. (2008), Demirbag et al. (2011), Gaur and Lu (2007), Lu and Hebert (2005), Lu and Xu (2006), Park and Russo (1996), and Peng and Beamish (2014).

Table 8. Industry distribution of the sample

SIC	Industry	Denmark			Finland			Norway			Sweden			Total		
		n	Exits	%	*n*	Exits	%	*n*	Exits	%	*n*	Exits	%	*n*	Exits	%
20	Food & Kindred	46	4	8.70	27	12	44.44	18	14	77.78	8	7	87.50	99	37	37.37
22	Textile	3	0	-	8	0	-	0	0	-	2	0	-	13	0	-
24	Lumber & Wood	4	0	-	12	0	-	1	0	-	8	2	25	25	2	8
25	Furniture & Fixtures	6	1	16.67	0	0	-	1	1	100	4	0	-	11	2	18.18
26	Paper & Pulp	5	1	20	40	3	7.50	6	3	50	23	6	26.09	74	13	17.57
27	Printing & Publishing	6	0	-	3	0	-	0	0	-	1	0	-	10	0	-
28	Chemical	19	1	5.26	35	7	20	19	10	52.63	16	5	31.25	89	23	25.84
29	Coal & Petroleum	0	0	-	0	0	-	3	2	66.67	0	0	-	3	2	66.67
30	Rubber & Plastics	13	2	15.38	20	11	55	2	1	50	14	0	-	49	14	28.57
31	Leather	1	0	-	0	0	-	0	0	-	0	0	-	1	0	-
32	Stone, Clay & Glass	15	1	6.67	15	4	26.67	0	0	-	2	2	100	32	7	21.88
33	Primary Metal	0	0	-	7	2	28.57	11	1	9.09	15	0	-	33	3	9.09
34	Fabricated Metal	7	0	-	25	6	24	0	0	-	18	5	27.78	50	11	22
35	Industrial Machinery	38	7	18.42	38	1	2.63	6	3	50	66	4	6.06	148	15	10.14
36	Electronics	19	5	26.32	53	22	41.51	3	0	-	52	7	13.46	127	34	26.77
37	Transport Equipment	3	0	-	2	0	-	2	1	50	36	4	11.11	43	5	11.63
38	Instruments	10	1	10	0	0	-	1	1	100	15	0	-	26	2	7.69
39	Miscellaneous	5	0	-	22	7	31.82	13	5	38.46	33	9	27.27	73	21	28.77
	Total	23	200	11.50	75	307	24.43	42	86	48.84	51	313	16.29	191	906	21.08

n-Number of investments; %-Exit rate

5.3.2 Independent variables

The two independent variables in the research model are (1) economic distance (ED), and (2) institutional distance (ID). This study uses two measures of economic distance. First, following Demirbag et al. (2011), and Tsang and Yip (2007), economic development was measured as GDP per capita. The second measure for economic distance was factor cost differential and was constructed using nine indicators from the World Competitiveness Yearbook. According to Ghemawat (2001; 2007), economic distance arises from the differences in costs and quality of natural resources, financial resources, human resources, infrastructure, intermediate inputs and knowledge resources. Amongst these, the present study examines the differences in infrastructure, financial resources, human resources[3] and knowledge resources. A summary of indicators used to construct the measure for factor differentials is provided in Table 9. Items 1 to 3 measure the cost and quality of human resources, items 4 and 5 measure the cost and ease of access to capital, items 6 and 7 measure cost of infrastructure, and items 8 and 9 measure cost of knowledge resources.

Table 9. List of indicators used to measure factor differentials

	Indicator	Description
1	Labour force	% of population
2	Total expenditure on education	% of GDP
3	Illiteracy	% of population
4	Cost of capital	Cost of capital encourages business development (Survey)
5	Credit	Credit is easily available for business (Survey)
6	Rent	Total occupation cost in main cities (US$ per sq. m)
7	Investment in telecommunication	Capital expenditure aggregate annual spending (US$ million)
8	Total expenditure on R&D	% of GDP
9	Business expenditure on R&D	% of GDP

Source: World Competitiveness Yearbook

[3] Hourly wage rate is a common measure for cost of human resources. However, due to insufficient data on wage rates in India, cost of labour was measured as percentage of labour force, illiteracy and public expenditure on education.

The measure for institutional distance was constructed following the approach of Gaur and Lu (2007). Accordingly, the institutional indicators were component analysed using Varimax rotation with Kaiser Normalisation. Principal component analysis (PCA) was formulated by Pearson (1901) and is a popular method used for analysing multivariate data (Wold, et al., 1987). Varimax rotation is an orthogonal rotation method developed by Kaiser (1958) and is by far the most widely used rotation method (Field, 2013). The results of the PCA are presented in Table 10.

The results of the PCA suggest that items 1 to 8 are institutional indicators. The findings of the PCA, barring bribery and corruption (#1), were similar to those of Gaur and Lu (2007). A comparison of the country rankings based on the distance indicators is provided in Appendix 3.

Table 10. Principal component analysis of country-level indicators

	Country-level indicators	**Factor loading**
1	Bribery and corruption	0.953
2	Government decision	0.940
3	Bureaucracy	0.939
4	Risk of political instability	0.931
5	Intellectual property rights	0.929
6	Protectionism	0.888
7	Government transparency	0.817
8	Legal and regulatory framework	0.799
9	Illiteracy	-0.521
10	Total general government debt	-0.500
11	Central government domestic debt	0.496
12	Adaptability of government policy	0.488
13	Government budget surplus/deficit	0.373
14	Patent applications	-0.355
15	Patent grants	-0.431
16	Central government foreign debt	-0.174
17	Balance of payment	0.243
18	National cultural openness	0.031

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 3 iterations.

Distance calculation

Distance is a numerical description of the proximity of an object from another object in a common space. Although there are different methods of measuring distance, the existing literature does not prescribe any specific method (Berry, et al., 2010). In economics and related fields, one of the most commonly used measures of distance is the Euclidean distance (Gilbert, et al., 1988). Other commonly used distance measures are the Kogut and Singh and Mahalanobis distances. All three distance measures are discussed below. In the following calculations, Δ_E and Δ_I stand for Factor Differentials and Institutional Distance respectively; ι is the indicator for home country A and host country B; Var is the variance of indicator ι; and *n* (in calculation *II*) is the number of indicators for each measure (9 for Δ_E and 8 for Δ_I).

I. Euclidean distance

The Euclidean distance measures the shortest possible distance between two points in Euclidean space using the Pythagorean theorem. It can be expressed as:

$$\Delta_E/\Delta_I = \sqrt{\sum_{i=1}^{n}(A_\iota - B_\iota)^2}$$

The distance values calculated using the Euclidean method are presented in Table 11.

Table 11. Euclidean distance between Nordics and BRICs

Home \ Host	Brazil		China		India		Russia	
	Δ_E	Δ_I	Δ_E	Δ_I	Δ_E	Δ_I	Δ_E	Δ_I
Denmark	4.11	1.69	4.47	2.01	4.33	1.92	4.16	1.84
Finland	3.99	1.76	4.36	2.08	4.13	1.77	4.02	2.17
Norway	4.03	1.48	4.17	1.66	4.08	1.45	4.12	1.65
Sweden	4.15	1.73	4.51	2.02	4.27	1.82	4.32	2.01

Berry et al. (2010) have identified the following three limitations of the Euclidean distance. First, it does not take into consideration the variance among the indicators. Second, it does not take into consideration the correlation between the indicators. Finally, it is sensitive to the measurement scale.

II. Kogut and Singh distance

Kogut and Singh (1988) developed an index based on Hofstede's cultural dimensions using a modified Euclidean method. They assume zero covariance between different indicators developed by Hofstede (1984). Using this method, Δ_E and Δ_I can be expressed as:

$$\Delta_E/\Delta_I = \frac{\sum_{i=1}^{n} \frac{(A_i - B_i)^2}{\mathrm{Var}_i}}{n}$$

The distance values calculated using this method are presented in Table 12.

The Kogut and Singh distance has at least two limitations. First, as shown by Kandogan (2012), the distance calculated using the Kogut and Singh method tends to over- or under-value the actual distance by almost 60-70% (also see Figure 11). Second, it makes an assumption of homogeneity that can result in measurement bias (Shenkar, 2001).

Table 12. Kogut and Singh distance between Nordics and BRICs

Home \ Host	Brazil		China		India		Russia	
	Δ_E	Δ_I	Δ_E	Δ_I	Δ_E	Δ_I	Δ_E	Δ_I
Denmark	1.80	1.81	2.39	2.43	2.30	2.28	1.85	2.14
Finland	2.00	1.96	2.57	2.57	2.01	1.96	1.96	2.81
Norway	1.63	1.32	1.87	1.69	1.61	1.29	1.74	1.71
Sweden	2.09	1.87	2.68	2.43	2.29	2.04	2.31	2.46

III. Mahalanobis distance

The Mahalanobis distance is the distance between a point P and distribution D (Mahalanobis, 1936). It is a measure that incorporates both the correlation between indicators and difference in variance. Mahalanobis distance is a special case of Euclidean distance where there the covariance matrix is not an identity (Kandogan, 2012). It can expressed as:

$$\Delta_E/\Delta_I = \sqrt{\sum_{i=1}^{n} \frac{(A_i - B_i)^2}{\mathrm{Var}_i}}$$

The distance values calculated using this method are presented in Table 13.

Table 13. Mahalanobis distance between Nordics and BRICs

Home \ Host	Brazil		China		India		Russia	
	Δ_E	Δ_I	Δ_E	Δ_I	Δ_E	Δ_I	Δ_E	Δ_I
Denmark	1.66	1.36	1.83	1.66	1.81	1.59	1.67	1.52
Finland	1.71	1.43	1.88	1.74	1.72	1.43	1.71	1.86
Norway	1.61	1.11	1.68	1.29	1.60	1.10	1.64	1.31
Sweden	1.75	1.39	1.91	1.67	1.80	1.47	1.81	1.68

Figure 11 compares the Δ_E and Δ_I between Denmark and BRIC countries using the three aforementioned methods. The figure demonstrates that both Euclidean and Kogut and Singh measures for Δ_E and Δ_I are overvalued than the Mahalanobis measures. This was a common theme for distances between other Nordic and BRIC countries. Considering the limitations associated with the Euclidean and Kogut and Singh measures, the Mahalanobis distance was deemed suitable for the present research.

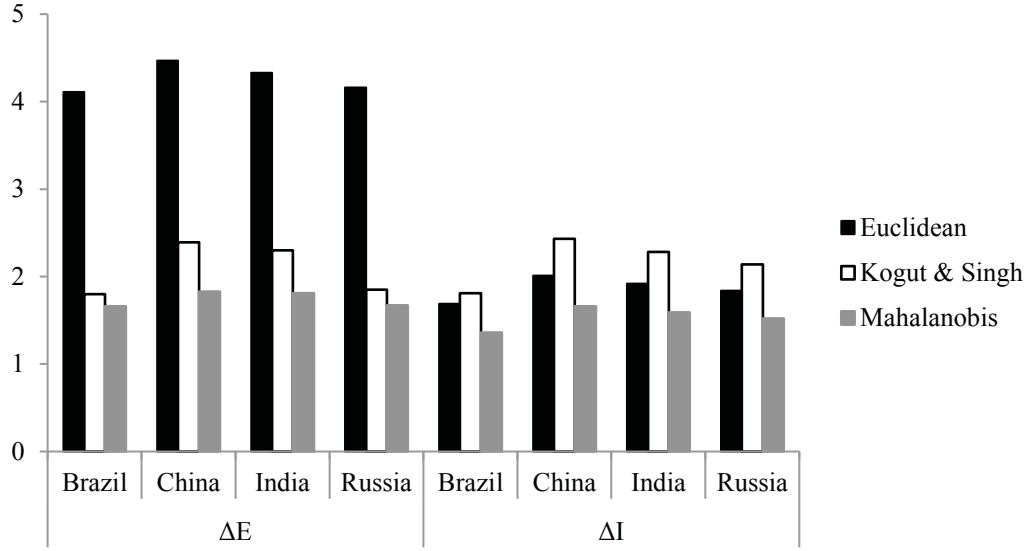


Figure 11. Comparison of distance measures between Denmark and BRICs

5.3.3 Moderating variables

The moderating variables used in this study can be broadly classified as (1) ownership advantages; and (2) entry strategies. Ownership advantages examined

in the study are host country experience, innovation intensity and firm financial performance. Host country experience is measured as subsidiary years in the host country. R&D intensity of the firm is measured as the total R&D expenses. The measure for financial performance is ROE per share.

Entry strategies were measured using two variables. Establishment mode was operationalised as a binary variable where 0 equals greenfield and 1 equals acquisition. Ownership mode was also operationalised as a binary variable where 0 equals WOS and 1 equals JV.

5.3.4 Control variables

Several control variables, which are likely to influence FDI performance, were included in the empirical analysis. At the firm-level, two control variables were included. First, firm size was measured using total sales. Second, diversity of the parent firm was measured as the total number of four-digit SIC codes. Three time dummy variables were included in the regression models. First dummy was chosen for 1990-1999. This decade was significant for the BRIC economies, especially India and Russia. Russia came into existence as an independent nation in late 1991 courtesy the dissolution of the Soviet Union. The year 1991 also marked the economic revolution in India. The new economic policies introduced in this year opened up the Indian market for private and foreign investment in key sectors of the economy. The second dummy was chosen for 2000-2007. The third dummy was chosen for 2008-2015. This time-period was critical for the global economy since it marked the beginning of the 2008 economic depression. A summary of operationalisation of variables is provided in Table 14.

5.4 Methodological validity and reliability

Methodological validity is defined as 'the extent to which a test measures what we actually wish to measure' (Cooper & Schindler, 2011, p. 280). Two major types of validity are internal and external validity. Internal validity is further classified as content and construct validity. Reliability is another contributor to validity. All the tests are important for the methodological rigour of a research design. The definitions of validity and reliability tests and their outcomes are summarised in Table 15.

Table 14. Operationalisation of variables

Variable	Operationalisation
Foreign divestment (FD)	0=Survival; 1=Exit
Economic distance (ED)	(1) Differences GDP per capita (2) Index for Factor cost differentials (FC) compounded using nine indicators
Institutional distance (ID)	Index compounded using eight indicators
Host country experience	Number of years of operation in the host country
R&D intensity	Total R&D expenses
Firm financial performance	ROE per share
Establishment mode	0=Greenfield; 1=Acquisition
Ownership mode	0=WOS; 1=JV

Content validity

Content validity indicates the extent of coverage of investigative questions covered by the research design. In other words, it ensures that the research design includes adequate measures for a concept. The sole dependent variable in the present study is the divestment of foreign subsidiary. Existing literature has provided very few alternatives to measure subsidiary divestment, and therefore, is commonly operationalised in binary terms. Other variables measured in binary terms are establishment and ownership choices. Two separate indices were constructed to measure the main factor cost differentials and institutional distance. The remaining variables were measured following the approach of previous studies. Therefore, the content validity of this study is considered to be moderate.

Construct validity

Construct validity indicates how well the operational measures correspond to the theories. As suggested by Sekaran and Bougie (2012) correlation analysis, factor analysis and multi-method matrix are some of the ways used in establishing construct validity. The robustness of the institutional distance was established using PCA and of other explanatory variables using correlation analysis. Both these methods suggest high construct validity.

External validity

External validity is the extent of generalisability of the findings. The empirical analysis of the present study is based on a sample of Nordic FDI in BRIC countries. The findings of this study can be applicable for firms from countries that have similar economic and institutional environments as the Nordics. Similarly, the findings can also be useful for firms entering BRIC or other developing countries. The findings of this study, however, may not be generalised for firms from larger economies or firms entering transition or underdeveloped economies. Therefore, the external validity of the research design is considered to be moderate.

Reliability

A reliability test is used to measure the consistency of the constructs, with consistency further classified as either being internal and external. Internal consistency is used to assess whether the items measure similar constructs. This test was confirmed using correlation analysis that suggested a high internal consistency. Unlike internal consistency, there are no fixed tests for measuring external consistency. However, external consistency can be established through data collection sources and methods. The sources of data used in the study can be considered reliable. First, the internal databank at the University of Vaasa was built over several years using company annual reports, business magazines and direct contact with companies. Second, the UNCTADStat databank is a reliable data source used not only by academic institutions but also by governments, financial institutions, small and large companies, and private investors. Third, the Thomson Reuters data is widely used by financial researchers, banking institutions and other financial institutions. Fourth, the World Competitiveness Yearbook has been used by several scholars studying FDI behaviour. Finally, all the data sources were complemented with additional searches made on individual firm websites, Orbis database, World Bank database, IMF database and national bank websites of the eight countries in focus. Given the nature of the data sources and the ability to trace the data over several years of observation, it can be concluded that the external validity of the study is high.

Table 15. Validity and reliability tests of the research design

Test	Definition	Outcome
Content validity	Research design includes adequate measures for a concept	Moderate
Construct validity	The extent to which operational measures correspond to the theory	High
External validity	The extent to which the results are generalisable	Moderate
Reliability	Degree of consistency of the constructs	High

6 RESULTS

This chapter discusses the analysis procedures and interprets the survival analysis results. It begins with the descriptive statistics and correlations between the key variables. Next, the chapter explains the model estimation and analysis procedure. Following on, the chapter discusses the results for control effects. Finally, the chapter proceeds to discuss the results for economic and institutional distances.

6.1 Descriptive statistics

The descriptive statistics and correlation matrix are provided in Table 16. The correlation between key explanatory variables were low and below the cut-off point of 0.7. Additional multicollinearity diagnostics were conducted to calculate the variance inflation factor (VIF) values using linear regression (see Appendix 4 for VIF results). As evident from Table 16, the VIF values for all variables were significantly below the recommended value of 10 (Neter, et al., 1990), thus, multicollinearity did not pose a serious concern to the coefficient estimates.

6.2 Model estimation and analysis procedure

The CPHM is a commonly used statistical model in divestment studies and has the following two advantages. First, it does not specify the parameters for the time of occurrence of an event, which in this case, is the exit of a foreign subsidiary. Second, CPHM allows the use of time-varying independent variables (Cox & Oakes, 1984). In a simplified form, the model can be expressed as:

$$\text{Ln } h(t) = ho(t) + b_1x_1 + b_2x_2(t)$$

where x_1 denotes the time-independent variables such as financial strength and institutional hazard; and x_2 denotes the time-dependent variables such as subsidiary age and experience.

Table 16. Correlation matrix

	Variable	VIF	1	2	3	4	5	6	7	8	9
1	Divestment	-	1								
2	GDP	1.136	-0.196***	1							
3	FC	1.087	-0.203***	-0.007	1						
4	ID	1.120	-0.035	-0.287***	0.098**	1					
5	HC Experience	1.052	-0.079*	0.112***	-0.106***	-0.040	1				
6	R&D	1.050	-0.104**	0.043	0.128***	-0.067*	0.068*	1			
7	ROE	1.044	0.087**	0.083*	-0.123***	-0.116***	0.072*	0.055ǂ	1		
8	Acquisition	1.106	0.111***	0.037	-0.190***	-0.016	0.138***	-0.106***	0.065*	1	
9	JV	1.076	0.130***	-0.134***	0.007	-0.035	-0.037	0.061ǂ	0.077*	0.171**	1

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906

The effects of economic and institutional distances were tested using five models in two separate regressions. Model 1 serves as the base model and includes the control effects. The main effects of economic and institutional distances were entered in Model 2. The moderation effects of ownership advantages were entered in Model 3 and those of entry strategies were entered in Model 4. Finally, Model 5 was a full specification model that included the main effects and all moderation effects. The results for moderation effects were interpreted using Model 5. The high Chi values in both regressions, suggested that all models were statistically significant.

In addition to the CPHM, curve estimation analyses were run to demonstrate the curvilinear relationship between ID and FD. It is a technique used to demonstrate the curvilinear or non-linear relationship between two variables. The curve estimation analysis was conducted using a quadratic function. All regression models and curve estimation analyses were run using IBM SPSS Statistics 24.0.

Robustness tests

The robustness of the results was tested using alternate sampling procedures and additional regressions. As reported in Appendices 6 and 7, the robustness of the main effect of ED was tested using separate regression analyses for GDP and FC. Additionally, Appendix 8 reports the results for the independent effects of each of the indicators used to compile the FC index. The non-linear effect of ID was tested in two separate models – one for low ID and other for high ID – by splitting the main sample around its mean. The results for low ID are reported in Appendix 9 and the results for high ID are reported Appendix 10. Furthermore, collinearity between the main effects was tested by entering GDP, FC and ID in the same model. These results are reported in Appendix 11.

Country-specific effects were tested using sub-sample analyses for each of the eight countries in focus. The independent effects of entry strategies were tested using separate samples for each of the establishment and ownership modes. For brevity, the results of the supplementary analyses for country-specific effects are reported in Appendices 12-27 and those for entry strategies are reported in Appendices 28-31.

6.3 Control effects

The control effects were tested in Model 1 of Table 17 and Table 18. In addition to the parent firm-level effects, Model 1 controlled for industry and time-fixed effects.

At the parent firm-level, the coefficient for Sales was negative and Diversity was positive. Both these coefficients were non-significant. Among the industry dummies, the coefficients for Food and Chemical were positive and significant at level $p<0.001$ and $p<0.10$ respectively. The coefficient for Machinery was negative and significant at level $p<0.05$. The coefficient for the industry dummy Paper was negative and for Electronics was positive, both being non-significant. Among the time dummies, the coefficient for Time1999 was positive and significant at level $p<0.01$ and the coefficient for Time2006 was positive and non-significant.

6.4 Economic distance and foreign divestment

Results for the analysis of economic distance are provided in Table 17. As indicated by the chi-square values, all models were highly significant. The results of the Cox's regression were interpreted and presented in the form of beta coefficients (B). A beta coefficient less than zero suggests that an increase in the explanatory variable, negatively affects the probability of foreign divestment; and a beta coefficient greater than zero, suggests that an increase in the explanatory variable increases the probability of foreign divestment.

6.4.1 Main effects

The main effect of economic distance on foreign divestment was examined using two variables. Hypothesis 1a predicted a negative relationship between differences in economic development and foreign divestment. The difference in economic development was measured as differences in the GDP per capita. As shown in Table 17 (Model 2), the coefficient for GDP was negative and significant at level $p<0.01$. Therefore, Hypothesis 1a was **supported**. Hypothesis 1b predicted a negative relationship between factor cost differentials and foreign divestment. As shown in Table 17 (Model 2), the coefficient for FC was negative and significant at level $p<0.001$. Therefore, Hypothesis 1b was **supported**. In sum, Hypothesis 1, which predicted a negative relationship between ED and FD, was **supported**. The relationship between ED and FD is demonstrated in Figure 12. The lines for GDP and FC have a negative slope suggesting a negative relationship with FD. Therefore, the graph supports the results for Hypothesis 1.

Table 17. Survival analysis results for economic distance

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.071	0.109	0.079	0.121	0.170	0.126	0.081	0.122	0.170	0.127
Diversity	0.006	0.009	-0.005	0.010	-0.013	0.011	-0.005	0.010	-0.013	0.011
Time1999	1.099**	0.393	0.558	0.472	0.513	0.492	0.562	0.477	0.536	0.495
Time2006	0.617	0.406	0.292	0.439	0.134	0.462	0.289	0.444	0.148	0.464
Food	0.807***	0.205	0.380ǂ	0.219	0.106	0.239	0.349	0.223	0.076	0.245
Paper	-0.015	0.307	-0.252	0.312	-0.269	0.315	-0.280	0.313	-0.293	0.317
Chemical	0.442ǂ	0.244	0.270	0.247	0.309	0.247	0.278	0.247	0.315	0.248
Machinery	-0.575*	0.286	-0.465	0.289	-0.526ǂ	0.291	-0.459	0.290	-0.510ǂ	0.292
Electronics	0.291	0.214	0.350	0.214	0.303	0.219	0.364ǂ	0.216	0.309	0.221
Main effects										
GDP			-0.002ǂ	0.001	-0.002	0.001	-0.001	0.001	-0.001	0.002
FC			-0.288***	0.938	0.714	1.221	-0.608ǂ	1.496	0.143	1.673
HC experience			-0.011	0.010	0.593*	0.273	-0.010	0.010	0.617*	0.279
R&D			-0.792**	0.875	0.013	0.718	-0.804**	0.935	0.381	0.767
ROE			0.011*	0.005	0.301***	0.084	0.011*	0.005	0.302***	0.084
Acquisition			0.201	0.167	0.190	0.171	0.523	3.374	-0.164	3.534
JV			0.277ǂ	0.158	0.258	0.161	2.490	3.226	2.221	3.302
Interaction effects										
GDP×HC experience					-0.001	0.001			-0.025	1.410
GDP×R&D					-0.957***	0.797			-0.895***	0.924
GDP×ROE					-0.693	0.077			-0.362	0.880
GDP×Acquisition							-0.001	0.001	-0.042	0.009
GDP×JV							0.746	0.001	0.166***	0.041
FC×HC experience					-0.331*	0.153			-0.001	0.001
FC×R&D					-0.099	0.819			-0.004	0.001
FC×ROE					-0.165***	0.040			-0.348*	0.157
FC×Acquisition							0.053	1.871	0.406	1.940
FC×JV							-1.307	1.795	-1.036	1.826
2- Log likelihood	2434.703		2377.378		2388.343		2376.183		2337.450	
Chi-square	47.592***		99.325***		159.926***		106.335***		166.295***	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	47.301***		104.627***		143.662***		105.822***		144.555***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906; Exits=191

The separate tests conducted for GDP and FC **support** these results. Model 2 in Appendix 6 shows that the coefficient for GDP is negative and significant at level p<0.1; and Model 2 in Appendix 7 shows that the coefficient for FC is negative and significant at level p<0.001. Both these results suggest that ED, when measured as differences in economic development and factor costs, has a significantly negative impact on FD decisions of Nordic MNEs.

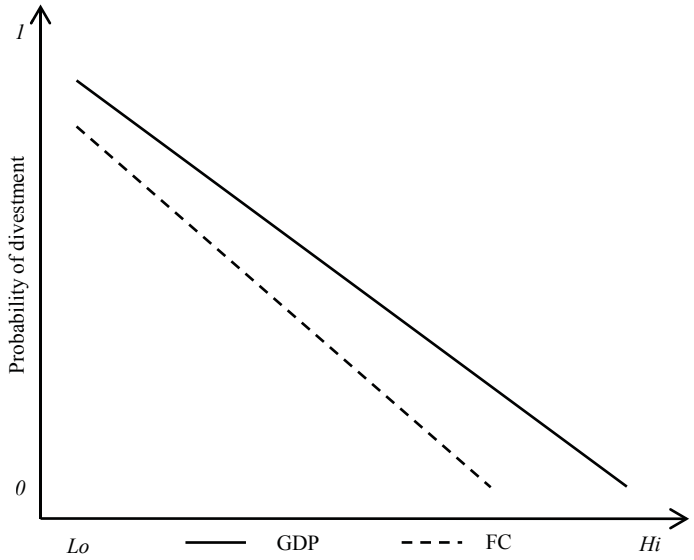


Figure 12. Relationship between ED and FD

The tests conducted for independent factor cost indicators provided moderate support to Hypothesis 1b. Appendix 8 shows that the signs for all indicators, except *labour force*, were negative. Although the only significant effect was *investment in telecommunication* ($p<0.1$), the results support the argument that lower factor costs in host countries reduce the probability of divestment.

After entering GDP, FC and ID in the same model, the results for Hypothesis 1 remained consistent. Model 2 in Appendix 10 shows that the coefficients for GDP and FC were negative and significant at level $p<0.05$, thereby **supporting** Hypotheses 1a and 1b.

Supplementary analyses conducted using country based samples provided mixed results for Hypotheses 1a and 1b. At the home country-level the coefficient for GDP was negative and significant at level $p<0.1$ in both Finland (Appendix 13) and Norway (Appendix 14) based samples, but was non-significant in Denmark and Sweden based samples. The coefficient for FC was non-significant in all home country based samples. At the host country based samples the coefficient for FC was negative and significant but the coefficient for GDP was non-significant.

6.4.2 Interaction effects

This study analysed the interaction effects of five variables. Among the five interaction terms, three measured the ownership advantages of the MNEs and the remaining two measured the entry strategies. The results for all interaction terms were interpreted from Model 5 in Table 17.

Ownership advantages

Hypothesis 3a predicted a negative moderating effect of host country experience on the relationship between GDP and FD. The coefficient for the interaction term GDP×HC Experience was negative but non-significant. Therefore, Hypothesis 3a was **not supported**. Hypothesis 4a predicted a negative moderating effect of innovation intensity on the relationship between GDP and FD. The coefficient for the interaction term GDP×R&D was negative and significant at level $p<0.001$, thus **supporting** Hypothesis 4a. Hypothesis 5a predicted a negative moderating effect of financial performance on the relationship between GDP and FD. The coefficient for the interaction term GDP×ROE was negative but non-significant. Therefore, Hypothesis 5a was **not supported**.

Hypothesis 3b predicted a negative moderating effect of host country experience on the relationship between factor cost differentials and foreign divestment. As shown in Model 5 of Table 17, the coefficient for interaction term FC×HC experience was negative but non-significant. Hence, Hypothesis 3b was **not supported**. Hypothesis 4b, which predicted a negative moderating effect of R&D intensity, was also **not supported,** since the coefficient for interaction term FC×R&D was negative but non-significant. Finally, Hypothesis 5b, which predicted a negative moderating effect of firm profitability on the relationship between FC and FD, was **supported**. The coefficient for the interaction term FC×ROE was negative and significant at level $p<0.05$.

Entry strategies

Hypothesis 6a predicted a positive moderation effect of establishment mode (Acquisition=1) on the relationship between GDP and FD. The coefficient for the interaction term GDP×Acquisition was negative but non-significant. Therefore, Hypothesis 6a was **not supported**. Hypothesis 7a predicted a positive moderating influence of ownership mode (JV=1) on the relationship between ED and FD. The coefficient for the interaction term GDP×JV was positive and significant at level $p<0.001$. Therefore, Hypothesis 7a was **supported**. Figure 13 demonstrates the interaction between GDP and JV.

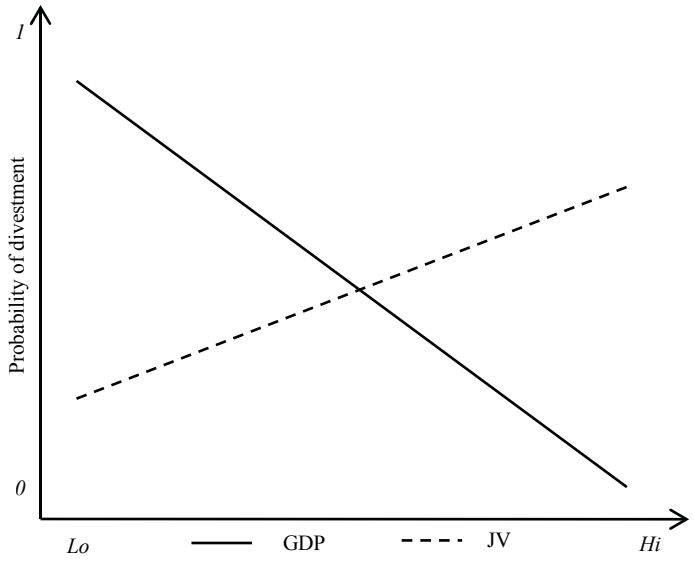


Figure 13. Interaction between GDP and JV

None of the interactions between factor cost differentials and entry strategies were supported. In model 5 of Table 17, the interaction term FC×Acquisition was positive and non-significant, and the interaction term FC×JV was negative and non-significant. Therefore, Hypothesis 6b and Hypothesis 7b were **not supported**.

6.5 Institutional distance and foreign divestment

The results for the analysis of institutional distance are provided in Table 18. The chi-square values were highly significant for all five models.

6.5.1 Main effects

Hypothesis 2 predicted a U-shaped relationship between institutional distance and foreign divestment. The U-shaped relationship was established by squaring the ID term. In Model 2, the coefficient for ID was negative and the coefficient for ID Square was positive, both being significant at level $p<0.01$. Therefore, Hypothesis 2 was **supported**. The curvilinear relationship between ID and FD is demonstrated in Figure 14.

The non-linear effect of ID was further tested by conducted two separate analyses after splitting the sample around the mean of ID. The independent effects of low

Table 18. Survival analysis results for institutional distance

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.071	0.109	0.124	0.122	0.149	0.124	0.113	0.123	0.139	0.126
Diversity	0.006	0.009	-0.006	0.010	-0.009	0.010	-0.005	0.010	-0.009	0.011
Time1999	1.099**	0.393	1.256**	0.399	1.266**	0.403	1.261**	0.399	1.269**	0.404
Time2006	0.617	0.406	0.777ǂ	0.409	0.758ǂ	0.412	0.780ǂ	0.410	0.764ǂ	0.413
Food	0.807***	0.205	0.513*	0.217	0.420ǂ	0.225	0.523*	0.220	0.436ǂ	0.226
Paper	-0.015	0.307	-0.227	0.309	-0.229	0.311	-0.232	0.309	-0.231	0.311
Chemical	0.442ǂ	0.244	0.237	0.247	0.234	0.247	0.246	0.247	0.243	0.247
Machinery	-0.575*	0.286	-0.551ǂ	0.288	-0.560ǂ	0.288	-0.547ǂ	0.290	-0.555ǂ	0.291
Electronics	0.291	0.214	0.362ǂ	0.212	0.386ǂ	0.213	0.372ǂ	0.215	0.395ǂ	0.215
Main effects										
ID			-25.649**	9.346	-22.393*	9.770	-26.033**	9.453	-22.673*	9.890
ID Square			7.571**	2.853	0.122*	0.051	7.708**	2.866	7.149*	2.978
HC experience			-0.444***	0.014	0.145	0.098	-0.440***	0.024	0.510	0.011
R&D			-0.008	0.011	0.228	0.169	-0.007	0.011	0.157	0.100
ROE			0.012*	0.005	0.000	0.000	0.012*	0.005	0.121*	0.051
Est. mode			0.223	0.168	0.269ǂ	0.158	-0.605	1.467	-0.555	1.529
Ownership mode			0.264ǂ	0.157	7.039*	2.964	1.244	1.497	1.277	1.515
Interaction effects										
ID×HC experience					-0.897	0.338			-0.980***	0.552
ID×R&D					-0.097	0.063			-0.104ǂ	0.064
ID×ROE					-0.069*	0.032			-0.068*	0.032
ID×Acquisition							0.511	0.889	0.482	0.927
ID×JV							-0.604	0.909	-0.617	0.918
2- Log likelihood	2434.703		2383.305		2375.349		2382.620		2374.711	
Chi-square	47.592***		86.768***		97.335***		87.374***		98.056***	
Degree of freedom	9		16		19		18		21	
Incremental Chi-square	47.301***		6.529**		5.251*		6.713**		5.370*	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906; Exits=191

ID and high ID were tested in Appendices 9 and 10 respectively. Results of both these regressions provided strong support for Hypothesis 2. In Appendix 9 (Model 2) the coefficient for Low ID was negative, whereas in Appendix 10 (Model 2) the coefficient for High ID was positive, both coefficients being significant at level p<0.05. These results suggest a ∪-shaped relationship between ID and FD. At the country-level analyses, Hypothesis 2 was supported only in the China-based sample. In Appendix 25 (Model 2) the coefficients for ID and ID Sq were negative and positive respectively, both being significant at level p<0.05. In the analysis for Danish and Norwegian samples, the ID Square was dropped because it was highly correlated with the ID term, hence, it was difficult to analyse the curvilinear effect. In the Finnish sample, the ID term was negative and its squared term was positive suggesting a ∪-shaped relationship between ID and FD.

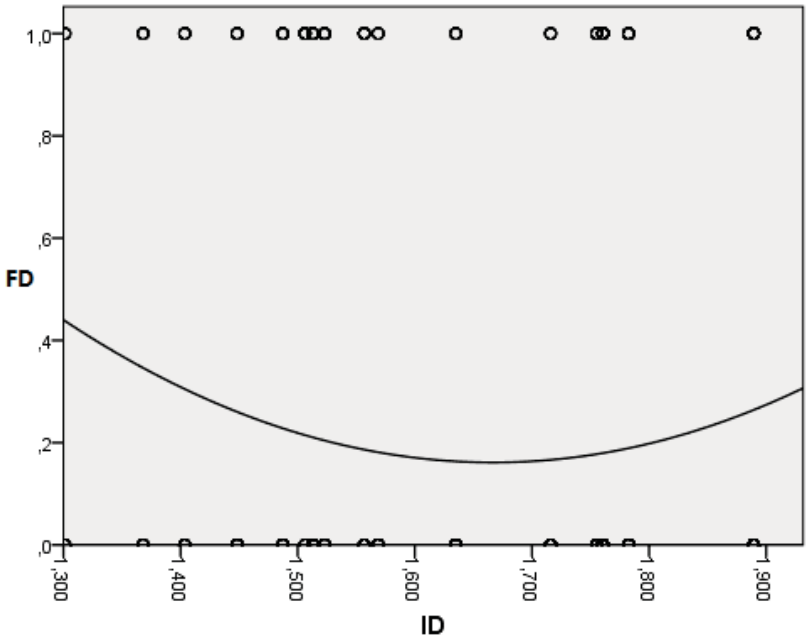


Figure 14. Curve estimation for the relationship between ID and FD

6.5.2 Interaction effects

Ownership advantages

Model 5 in Table 18 consists of interaction terms between ID and three ownership advantages. Hypothesis 3c predicted a negative moderating influence of host country experience on the relationship between ID and FD. The coefficient for the interaction term ID×HC Experience was negative and significant at level $p<0.001$, thereby **supporting** Hypothesis 3c. Figure 15 demonstrates the interaction between institutional distance and host country experience. The FD curve, after entering interaction term ID×HC Experience, shows a significant improvement from the original curve. This suggests that MNEs with high host country experience are more capable of inhibiting the adverse effects of institutional distance than firms with low host country experience. The country-level analyses conducted at home and host country-level did not support Hypothesis 3c since the coefficient for ID×HC Experience was non-significant in all regressions.

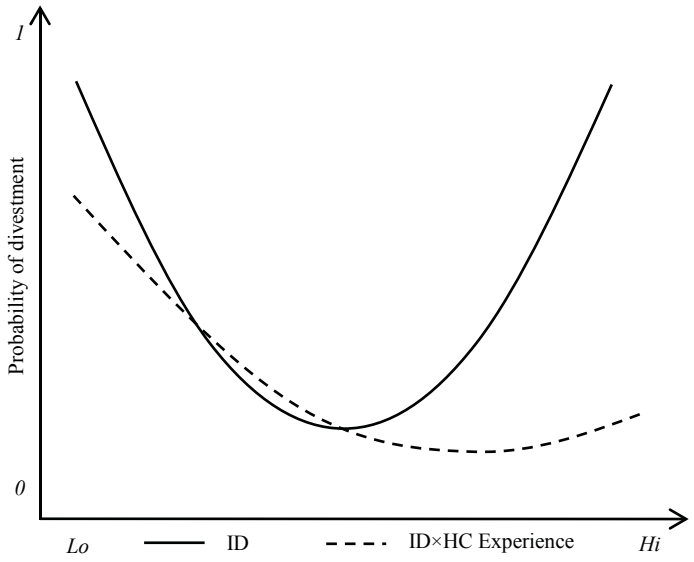


Figure 15. Interaction between ID and HC experience

A negative moderating influence of R&D intensity was predicted in Hypothesis 4c. As shown in Model 5, the coefficient for the interaction term ID×R&D was negative and significant at level $p<0.1$. Therefore, Hypothesis 4c was **supported**. Figure 16 demonstrates the interaction between institutional distance and R&D intensity. After entering the interaction term, the ID×R&D curve shows a significant improvement over the original ID curve. The country-level analyses conducted at home and host country-level did not support Hypothesis 4c since the coefficient for ID×R&D was non-significant in all regressions.

Hypothesis 5c, which predicted a negative moderating effect of firm profitability, was also **supported**. The coefficient for the interaction term ID×ROE was negative and significant at level $p<0.05$. The curve estimation analysis for ID×ROE shows a significant improvement in the FD curve as compared to the curve estimation analysis for ID. The curve for FD, after entering ROE, shows a steep positive and negative slope than the original FD curve. Furthermore, under the moderation effect of ROE, the rate of FD falls below the original FD rate.

The country-level analysis provided mixed results for Hypothesis 5c. At the home country-level, the coefficient for ID×ROE was non-significant. At the host country-level, the coefficient for ID×ROE was found to be negative and significant at levels $p<0.05$ and $p<0.1$ in Brazil (Appendix 24) and China (Appendix 25) based samples respectively. The coefficients were non-significant in India and Russia based samples.

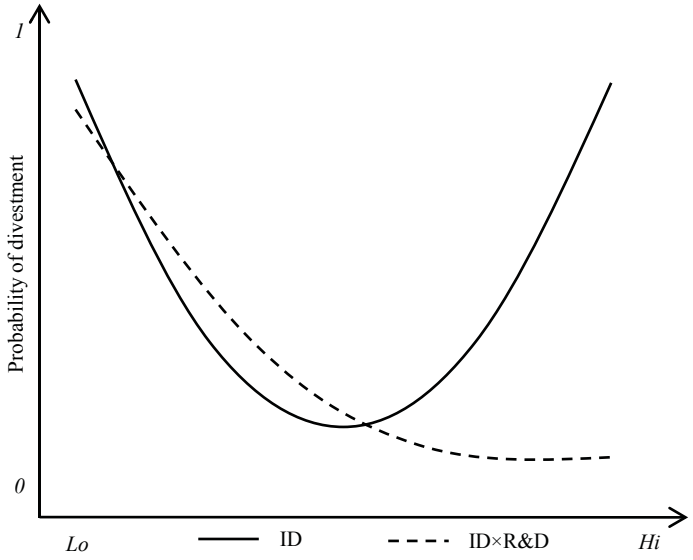


Figure 16. Interaction between ID and R&D intensity

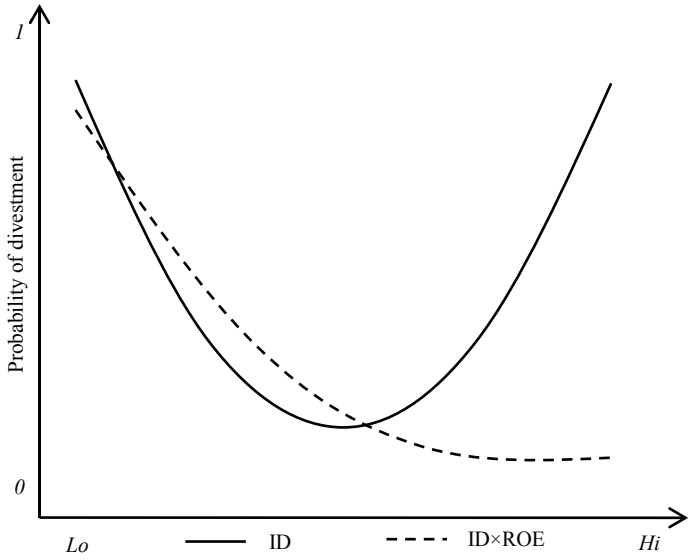


Figure 17. Interaction between ID and ROE

Entry strategies

Hypothesis 6c predicted a positive moderating influence of establishment mode on the relationship between ID and FD such that Acquisition as an establishment mode will strengthen the impact of ID on FD. As suggested by Model 5 in Table 18, the coefficient for the interaction term ID×Acquisition was positive but non-significant, which suggests that Hypothesis 6c was **not supported**. Hypothesis 7c

predicted a positive moderating effect of ownership mode JV on the relationship between ID and FD. As suggested by Model 5 in Table 18, the coefficient for interaction term ID×JV was negative but non-significant. Therefore, Hypothesis 7c was **not supported**.

The results of supplementary analyses conducted for establishment mode moderately supported Hypothesis 6c. In the Greenfield sample (Appendix 30a), the coefficients for ID and ID Sq were negative and positive respectively, both being significant at level $p<0.01$. The coefficients maintained their respective signs but were non-significant in the Acquisition sample (see Appendix 30b). Thus, the supplementary analyses provided **moderate support** to Hypothesis 6c.

The results of supplementary analyses conducted for ownership mode moderately supported Hypothesis 7c. As shown in Model 2 of Appendix 31b (JV), the coefficients for ID and ID Sq were negative and positive and both significant at level $p<0.05$. However, in the WOS sample (Appendix 31a), both these coefficients were non-significant. Therefore, the supplementary analyses provided **moderate support** to Hypothesis 7c.

The regressions conducted at country-level sub-samples revealed mixed results. At the home country-level, all coefficients for ID×Acquisition and ID×JV were non-significant. At the host country-level, the coefficient for ID×Acquisition was negative and significant at level $p<0.05$ in the Brazil-based sample (Appendix 24). The coefficients for ID×Acquisition and ID×JV in other host country based samples were non-significant. Overall, the country based sub-samples provided **weak support** to Hypotheses 6c and 7c.

7 SUMMARY, DISCUSSION AND CONCLUSIONS

This chapter summarises the empirical results of the study, highlights the limitations, and provides directions for future research. It begins by providing a summary of the results and comparing the findings with those of previous studies. In identifying the study contributions, the chapter focuses on theoretical contributions, empirical contributions, and managerial and policy implications. Finally, the chapter identifies the limitations of this study and provides directions for future research.

7.1 Summary of results

This study examined the impact of the following two dimensions of cross-national distance: (1) economic distance; and (2) institutional distance on the probability of foreign divestment. The empirical analysis was conducted using a sample of 906 Nordic FDIs in BRIC countries. A summary of the results is provided in Table 19.

7.1.1 Summary of results for cross-national distance

The results of this study show that there FD has a negative and U-shaped relationship with economic and institutional distance respectively. Hypothesis 1a predicted a negative relationship between economic development (measured as GDP per capita) and FD. The empirical results provided support for this hypothesis. The economic development of the BRIC countries is significantly lower than that of the Nordic countries. This difference is ideal for Nordic MNEs to exploit their unique ownership advantages. Previous studies have suggested a linear relationship between economic distance and foreign divestment. For example, Tsang and Yip (2007) categorised economic distance as high and low, but their results suggested that both measures of economic distance had a negative impact on foreign divestment. The findings of Demirbag et al. (2011) also suggested a negative relationship between economic distance and foreign divestment. Both these studies measured economic distance as the difference in the per capita GDP of home and host countries.

The results also supported Hypothesis 2 that predicted a U-shaped relationship between institutional distance and foreign divestment. This result is consistent

Table 19. Summary of results

Hypothesis (H)	Effect	Expected sign	Result
1a	Economic development (GDP)	-	Supported
1b	Factor cost differentials (FC)	-	Supported
2	Institutional distance (ID)	∪	Supported
3a	GDP×HC experience	-	Not supported
3b	FC×HC experience	-	Not supported
3c	ID×HC experience	-	Supported
4a	GDP×R&D intensity	-	Supported
4b	FC×R&D intensity	-	Not supported
4c	ID×R&D intensity	-	Supported
5a	GDP×ROE	-	Not supported
5b	FC×ROE	-	Supported
5c	ID×ROE	-	Supported
6a	GDP×Acquisition	+	Not supported
6b	FC×Acquisition	+	Not supported
6c	ID×Acquisition	+	Not supported
7a	GDP×JV	+	Supported
7b	FC×JV	+	Not supported
7c	ID×JV	+	Not supported

+ Increases probability of divestment; ∪ Curvilinear/non-linear effect

with the findings of Gaur and Lu (2007) who measured two dimensions of institutional distance – normative and regulative. They found that both these dimensions of institutional distance had an inverted ∪-shaped relationship with subsidiary survival. In other words, institutional distance had a ∪-shaped relationship with subsidiary divestment. A comparison between findings of the present study and those of previous studies is provided in Table 20.

Table 20. Comparison of findings on cross-national distance

Study	Economic distance	Institutional distance
Gaur and Lu (2007)	n.a.	∪
Tsang and Yip (2007)	-	n.a.
Demirbag et al. (2011)	-	n.a.
Pattnaik and Lee (2014)	+	+
Kang et al. (2017)	+	+
Present study	-	*∪*

n.a.-Not applicable; + Increases probability of divestment; ∪ Curvilinear/non-linear effect

7.1.2 Summary of results for ownership advantages

The moderating effect of ownership advantages received considerable support from the empirical analysis. Among the three ownership advantages that were examined, two were intangible assets, namely host country experience and R&D intensity; and the third was financial performance (ROE).

First, it was predicted that host country experience will have a negative moderating influence on the relationship between cross-national distance and foreign divestment. The results (see Table 19) suggested that host country experience did not have any moderating influence on ED (H3a and H3b), but had a significant moderating influence on ID (H3c). This result is consistent with previous studies such as Gaur and Lu (2007), Lu and Hebert (2005), and Pattnaik and Lee (2014) who found that MNEs with higher host country experience were able to enhance subsidiary survival in institutionally distant countries. The interaction of host country experience and economic distance, however, has not been examined in previous FD studies.

Second, this study predicted a negative moderating effect of R&D intensity on the relationship between cross-national distance and foreign divestment. With the exception of Delios and Beamish (2001), and Park and Park (2000), R&D intensity has mainly been used as a control variable in FD studies. However, its moderating effect on cross-national distance has not been tested previously. The coefficients for interaction terms GDP×R&D (H4a) and ID×R&D (H4c) were significant. This

indicates that MNEs with higher R&D expenditure are likely to overcome cross-national distance and reduce the probability of foreign divestment.

Finally, firm profitability was hypothesised to negatively moderate the impact of cross-national distance on foreign divestment. The coefficients for the interaction terms FC×ROE (H5b) and ID×ROE (H5C) were significant. These results corroborate the findings of prior divestment studies such as Duhaime and Grant (1984), and Hamilton and Chow (1993). Duhaime and Grant (1984) found that a firm's poor financial performance plays a key role in its divestment decisions. Similarly, Hamilton and Chow (1993) found that divestment decisions are directly proportional to the firm's profitability. This confirms the notion that firm profitability and financial strength are important factors determining the performance and survival of FDIs. Furthermore, the results also suggest that financial strength and profitability not only have a direct relationship with divestment decisions, but they also have a significant moderating influence on external hazards.

7.1.3 Summary of results for entry strategies

The moderating effects of entry strategies were partly supported. Acquisition as an establishment mode was predicted to have a positive moderating influence on the relationship between cross-national distance and foreign divestment. The interactions between cross-national distance and acquisition (H6a, H6b and H6c) were found to be non-significant. The findings of previous studies examining this effect were also non-significant (e.g. Gaur & Lu, 2007; Kang, et al., 2017). JV as an ownership mode was predicted to have a positive moderating influence on the relationship between cross-national distance and foreign divestment. It was found that the interaction between GDP and JV (H7a) was significant. This result is in line with Tsang and Yip (2007), and Pattnaik and Lee (2014). The results for interaction terms FC×JV (H7b) and ID×JV (H7c) were non-significant. A summary and comparison of findings for interaction between entry strategies and cross-national distance is provided in Table 21.

The non-significant findings concerning entry strategies can be partly explained by the choice of empirical setting. The present study used a novel sample of Nordic FDI, whilst the majority of previous studies have focused on Japanese, American or Korean FDI. Owing to the small domestic market, Nordic firms are encouraged to develop their ownership advantages and expand abroad in order to achieve economies of scale (Narula, 2002). At the same time they tend to be

Table 21. Comparison of findings on moderation effects of entry strategies

	1	2	3	4	5	6	7	8	9
Gaur & Lu (2007)			+						
Tsang & Yip (2007)	#	+							
Pattnaik & Lee (2014)		+		#	+				
Kang et al. (2017)	-					#	#		
Present study	#	+*						#	#

+ Increases probability of divestment; # Not significant; * Partially supported

1 ED×Acquisition 2 ED×JV 3 Regulative distance×JV

4 Administrative distance×JV 5 Political distance×JV 6 Administrative distance×Acquisition

7 Political distance×Acquisition 8 ID×Acquisition 9 ID×JV

more competitive in certain niche sectors as small economies tend to have limited resources (Benito, et al., 2002). As a result, Nordic MNEs may rely on their unique ownership advantages to overcome cross-national rather than relying on local partners and acquired units. Moreover, the smaller domestic markets may act as a barrier for reversing their FDI decisions.

7.2 Contributions of the study

7.2.1 Theoretical contributions

First, this study was one of the few to have empirically tested Boddewyn's (1983) theory of foreign divestment. The empirical results supported Boddewyn's propositions concerning the ownership and location advantages. As per Boddewyn's theory, MNEs are likely to divest foreign subsidiaries if either of their ownership, internalisation, or location advantages diminish post entry. The results of this study suggest that higher ownership advantages of MNEs mitigate the impact of cross-national distance on foreign divestment. Similarly, it was found that location advantages of the host countries have a significant impact on divestment decisions. The findings for internalisation advantages were partially supported. Overall, this study adds value to Boddewyn's FD theory and future

studies can test his framework using different empirical settings. There, however, needs to be a detailed examination on the effects of internalisation advantages.

Second, the results of this study challenge the conceptualisation of ownership advantages of the eclectic paradigm. Dunning (1988a; 1988b; 2001), in his eclectic approach towards international business, has highly emphasised the importance of intangible assets and tacit knowledge. His assumption that firms with high knowledge resources, intangible assets and experience, are better positioned to exploit the location advantages of foreign markets. In addition to the intangible assets, the results of this study highlight the importance of firm profitability. The results show that MNEs with a high ROE ratio are able to overcome cross-national distance and subsequently the probability of divestment is significantly reduced. Therefore, this finding adds value to the conceptualisation of ownership advantages.

The **final** theoretical contribution is related to the institution-based view. The review of existing literature (see Chapter 2 and Chapter 3) suggests that the IBV is one of the most commonly used theories in FD literature. This might be because institutional hazards, especially those of emerging economies, provide sufficient reasoning for poor subsidiary performance. Researchers have often associated poor performance and subsidiary divestment to the liability of foreignness (Hennart, et al., 2002; Mata & Freitas, 2012) and the MNEs' inability to achieve legitimacy in the host country (Lu & Xu, 2006). However, the relationship between institutional hazards (or institutional distance) may not be as straightforward as it has been assumed in the literature. To prove this point, Gaur and Lu (2007) showed a non-linear relationship between institutional distance and foreign divestment. Their theoretical approach was mainly driven by Scott's (1995) regulative, normative and cognitive pillars of institutions. Using North's (1990) institutional theory and following Gaur and Lu's (2007) approach, the present study demonstrated a non-linear relationship between ID and FD. Therefore, the findings of this study advance our understanding of formal and informal institutions, and their implications for foreign divestment.

7.2.2 Empirical contributions

First, this study is amongst the few to have examined foreign divestment of Nordic MNEs. Other empirical works on Nordic foreign divestment include Benito (1997), Benito and Larimo (1995), Larimo (1998; 1999), Wang (2014) and Wang and Larimo (2015a; 2015b). A comparative summary of these works is provided in

Table 22. The present study uses a comprehensive sample of 906 FDIs from four Nordic countries. With the exception of Larimo (1999), the remaining four studies either used a single country FDI sample or two country FDI sample. This made the present study eligible to potentially conduct a cross-country analysis of the country of origin effect. The comparative analysis shows significant variations between the pooled sample analysis and the sub-sample analysis at the home country-level.

Table 22. Comparison of studies on Nordic foreign divestment

Study	Home country(s)	Host country(s)	Sample
Benito (1997)	Norway	Europe (Nordics, U.K., Ireland), Americas (Brazil, Canada, U.S.A.), Asia, Africa and Middle East	153
Benito and Larimo (1995)	Finland and Norway	Mainly OECD countries	328
Larimo (1998)	Finland	17 OECD countries	918
Larimo (1999)	Nordic	50 countries (75% OECD countries, 25% other countries)	2637
Wang (2014)	Finland	China	405
Wang and Larimo (2015b)	Nordic	China	405
Present study	*Nordic*	*Brazil, China, India and Russia*	*906*

Second, the results of this study provide a useful foundation apropos the research on BRIC countries. The BRICs, as a group of emerging economies, are strategically significant for future global trade and commerce. China and India are the leading markets for manufacturing and services firms respectively. China is known for its manufacturing-driven economy whereas, India's status as the leading business process outsourcing and IT hub, have several implications for MNEs from the western countries. Russia's geographic proximity, geo-strategic location and abundance of natural resources, make it an attractive trade partner for the Nordic MNEs. Brazil is the largest economy in Latin America and one of the largest in the Southern and Western hemispheres. With its well-established manufacturing industry, supplemented by large agriculture sector and emerging service sector, Brazil has the potential to compete with other members of the BRIC collaboration. These four countries have seldom been examined in divestment literature. Although some studies have investigated foreign divestment from China, by Japanese (Kim, et al., 2010; Lu & Xu, 2006; Xu & Lu, 2007) and Finnish (Wang, 2014; Wang & Larimo, 2015a; 2015b) MNEs, the empirical research on other three

countries is relatively limited. Therefore, this study adds value to our understanding about the economies of the BRIC countries, especially Brazil, India and Russia.

The **third** empirical contribution of this study is the measurement of ED. Previous studies have examined ED either using a unidimensional measure such as GDP per capita (Tsang & Yip, 2007) or by using a composite index (Demirbag, et al., 2011; Kang, et al., 2017; Pattnaik & Lee, 2014). Demirbag et al. (2011) used the Index of Economic Freedom as a one of the measures of ED. The Index of Economic Freedom focuses on four aspects of the economic environment that include: (1) rule of law; (2) government size; (3) regulatory efficiency; and (4) market openness, and is comprised of twelve indicators that are listed in Table 23. The indicators used to compile the index are effectively economic institutions that are controlled directly, or indirectly, by the governments. Studies by Kang et al. (2017) and Pattnaik and Lee (2014), measured ED as the difference between GDP per capita, inflation and trade flow indicators (exports and imports as a % of GDP). The trade flow indicators, in particular, may not have a direct impact on FDI and FD decisions since they do not measure the transfer of equity and physical assets Moreover, firms engaged in FDI, are keen on knowing the costs of production, cost of acquiring land or plant, cost of labour and other factors of production. Therefore, the FC index compiled in this study can be a more relevant measure of economic distance than the indices used by previous studies.

The **final** empirical contribution of this study is related to the modelling procedure. The moderating variables included in the model were either at the firm-level or at the entry/ownership-level. This is a unique feature of the model, since the majority of the literature on FD has focused on examining the moderating role of country-level variables. Only a few studies, such as Gaur and Lu (2007), Pattnaik and Lee (2014), and Kang et al. (2017) have examined similar moderation effects. This point was briefly discussed in Chapter 1 (Section 1.4: Expected contributions). Therefore, the empirical findings of this study bring a fresh perspective of fitting country-level indicators and firm-level indicators into a single model that is distinctive from previous research models.

7.2.3 Managerial and policy implications

The present study adds value to our understanding of FDI decision making mainly because foreign divestment is considered as an important indicator of poor MNE performance (Delios, et al., 2008; Shaver, et al., 1997). The empirical analysis of

this study included several firm- and country-level variables that make the results of importance for both managers and policymakers.

First, this study draws attention towards the significant role of cross-national distance in shaping MNE strategy. The results suggest a ∪-shaped relationship between cross-national distance and FD. This result draws attention towards the 'arbitrage-cost paradox'. On the face value, cross-national distance appears to provide ample arbitrage opportunities that make the market highly appealing for foreign investors. In pursuing these arbitrate opportunities managers may become ignorant towards the potential marginal costs arising from cross-national distance. Such investments may turn costly over a period of time and ultimately damage the overall performance of the MNE. Therefore, balancing the arbitrate opportunities and costs arising from cross-national distance may be a sound strategy.

Second, it was found that firm profitability has a significant impact on the MNEs' capability to overcome cross-national distance and successfully implement their FDI strategies in emerging markets. A financially well-performing parent firm is in a position to ensure that its subsidiaries are well financed to handle the adverse effects of cross-national distance. The knowledge that the parent firm is financially stable also gives decision making freedom to subsidiary managers to make strategic changes in the host country.

This finding also provides a valuable learning to shareholders. It is a widely accepted that shareholders' investment decisions are largely dependent on the profitability of the firm (Hovakimian, et al., 2004; Rajan & Zingales, 1995; Titman & Wessels, 1988). In addition to firm profitability, some researchers have also established a direct link between FDI location choice and shareholder ownership (Lien, et al., 2005; Strange, et al., 2009). Therefore, it can be argued that MNEs with a strong financial performance having investments in emerging markets can be a safe investment option for shareholders.

Table 23. Comparison of measures of economic distance

Factor Cost Index *(per present study)*	**Index of Economic Freedom**[a] *(Heritage Foundation)*	**Economic Distance** *(Kang, et al., 2017; Pattnaik & Lee, 2014)*
Labour force	Property rights	GDP per capita
Total expenditure on education	Judicial effectiveness	Inflation
Illiteracy	Government integrity	Exports (% GDP)
Cost of capital	Tax burden	Imports (% GDP)
Credit	Government spending[b]	
Rent	Fiscal health	
Investment in telecommunication	Business freedom	
Total expenditure on R&D	Labour freedom	
Business expenditure on R&D	Monetary freedom	
	Trade freedom	
	Investment freedom	
	Financial freedom	

a. Compiled from 2017 Index of Economic Freedom.
b. The 'Government Spending' indicator used in the Index of Economic Freedom has also been measured as the cost of infrastructure among other measures. This facet of government expenditure is beneficial for firms as it promotes a healthy economic environment. Therefore, its effect on FDI performance and subsidiary divestment is more complex than otherwise predicted.

Third, the findings of this study show that intangible assets such as host country experience and international experience are valuable only when making investments in an institutionally distant country. This finding is important for both, newly internationalised firms and MNEs with an established international subsidiary network. Newly internationalised firms can invest more resources in familiarising themselves with the target country to overcome their liability of foreignness. Firms with an established international network can invest their experience in formulating more aggressive expansion strategies in institutionally distant countries.

Finally, policymakers from BRIC countries can use the findings of this study for formulating attractive inward FDI policies. This study encourages policymakers to

reduce the institutional distance by strengthening the institutional environment of their respective countries. The recent example of India can be a case in point. With a new government taking charge of the country in 2014, India witnessed a surge in inward FDI flow (The Economic Times, 2015). The 'Make in India' campaign launched by the government was aimed at strengthening 25 sectors of the economy. The new policy also encouraged up to 49% foreign investment in the defence sector and 100% in the railways (Business Standard, 2014). By relaxing the FDI policies and opening up the market, India effectively reduced the institutional distance between itself and other advanced economies, thereby encouraging more foreign investment. India climbing four places to 130 in 2016 edition of Ease of Doing Business Index as compared to 134 in the 2015 edition is an evidence of this change. The other three members of the BRIC collaboration, on the other hand, have seen irregular inward FDI flow. Therefore, the present case suggests that small institutional changes can have a significant impact on FDI flows.

7.3 Limitations and future research direction

The **first** limitation of this study is related to the operationalisation of cross-national distance. Out of the four dimensions of cross-national distances (economic, institutional, cultural and geographic) mentioned by Ghemawat (2001), the focus of this study was on economic and institutional distances. This was mainly because of the research objectives and the choice of theoretical approach. The remaining two dimensions of distance, namely cultural distance and geographic distance, have received a varied amount of attention from economists. On the one hand, cultural distance is one of the most commonly examined factors in FD related studies. Geographic distance, on the other hand, has received very limited attention. Therefore, this factor could be further examined to explore the relationship between locational proximity of the host country from the parent firm's home country.

The **second** limitation of this study is related to the measurement of cross-national distance. In the present study, cross-national distance was computed by aggregating the country-level indicators. This method may provide distorted distance values and may affect the homogeneity of the distance. These limitations make the results inaccurate for analysing individual country-level environments. The distorted distance values may have an adverse effect on managerial decision-making. Therefore, future studies could measure the distance between the home country *vis-à-vis* the host country for more accurate readings of the distance.

Future research could also be directed towards refining the measurement of the FC index. The present study computed the FC index using nine factor cost indicators. However, as suggested by Ghemawat (2001), other costs such as interest rates, cost of labour and cost of raw materials are also indicators of ED. These indicators could be integrated into computing a robust FC index.

The **third** limitation of this study is related to the treatment of the moderating influence of entry strategies. In the present study, entry strategies were treated as two separate decisions, amongst which, the first is concerned with the establishment mode (acquisition vs greenfield) and the second is concerned with the ownership mode (JV vs WOS). Since the decisions related to establishment and ownership modes are made simultaneously prior to foreign market entry, this method of operationalising the entry strategies may not fully capture the effects of entry modes such as full vs. partial acquisitions and full vs. partially owned greenfields. These entry mode choices have been found to display different behaviour in foreign markets (Song, 2014b), and therefore, their influence on FD decisions cannot be overlooked.

The **fourth** limitation of this study was the inadequacy of primary firm-level data. Similar to the majority of the previous studies on FD, the empirical analysis of this study was conducted using secondary data. This is a common theme in the existing literature due to managers' protection of their interests and their reluctance to reveal confidential information. Firms also are concerned about losing shareholders' trust if they were to reveal actual figures and the reasons behind selling or closing foreign subsidiaries. Therefore, researchers have consistently faced challenges gathering primary data on this topic. The lack of primary data limits the ability of this study to examine some key firm- and subsidiary-level indicators such as parent-firm strategy change and subsidiary performance.

Fifth, previous studies have found firm size, a key firm-level variable, to have a negative impact on divestment (Gaur & Lu, 2007; Mata & Portugal, 2004; Mitchell, et al., 1994). Due to data limitations, this variable was excluded from the current analysis. Not all firms included in the database are stock listed and therefore, are not mandated to share valuable company information such as firm size. This also extends to subsidiary-level information. Information on subsidiary size was not available for the majority of the 906 subsidiaries included in the sample. Therefore, the present study was limited in extending its empirical analysis to incorporate these variables.

Finally, researchers as well as managers should treat cross-national distance between Nordic and BRIC countries with the usual caveats. The findings of this

study were based on a sample of manufacturing subsidiaries and therefore, may not be generalised to primary and services industries. Since primary industries are predominantly dependent on natural resources, the role of country location and geographic distance might be significant in dictating FDI flow and MNE behaviour. The services industry is dependent on labour markets and consumer behaviour. Both these elements are sensitive to cultural and language differences. Therefore, keeping economic and institutional distances constant, service sector firms might display a different behaviour than their manufacturing peers.

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Appendices

Appendix 1. Country comparison – economic and demographic parameters

	1990	1995	2000	2005	2010	2014
Brazil						
Total GDP (million US$)	402,137	768,951	644,728	882,043	2,143,035	2,199,537
GDP Growth Rate	-4.35	4.22	4.31	3.16	7.53	0.10
GDP Per Capita (US$)	2,687	4,749	3,694	4,738	10,978	10,886
GDP Per Capita Growth Rate	-5.99	2.64	2.81	1.98	6.59	-0.73
Inward FDI stock (million US$)	37,143	47,886	122,250	181,344	682,345	754,768
Outward FDI stock (million US$)	41,044	44,473	51,946	79,259	191,349	316,339
BoP (% of Total GDP)	-0.95	-2.36	-3.76	1.58	-2.21	-4.73
Currency	Real					
Inflation	0.001	46.06	66.04	100	125.72	159.57
Population (000)	150,393	162,755	175,786	188,479	198,614	206,077
HDI	0.608	0.648	0.683	0.702	0.737	0.755
China						
Total GDP (million US$)	404,494	756,960	1,192,836	2,287,236	5,949,785	10,066,674
GDP Growth Rate	3.84	10.92	8.43	11.3	10.41	7.40
GDP Per Capita (US$)	347	611	931	1,735	4,375	7,222
GDP Per Capita Growth Rate	2.11	9.88	7.79	10.64	9.71	6.77
Inward FDI stock (million US$)	20,690	101,098	193,348	272,094	587,817	1,085,293
Outward FDI stock (million US$)	4,455	17,768	27,768	57,205	317,210	729,584
BoP (% of Total GDP)	2.96	0.21	1.72	5.79	3.99	2.08
Currency	Yuan					
Inflation	_	85.63	93.60	100	115.59	130.12
Population (000)	1,154,605	1,227,841	1,269,974	1,305,600	1,340,968	1,369,435
HDI	0.501	0.545	0.588	0.641	0.699	0.728
India						
Total GDP (million US$)	326,795	369,240	467,787	837,499	1,704,794	2,041,084
GDP Growth Rate	5.66	5.66	4.03	9.28	10.54	5.40
GDP Per Capita (US$)	376	386	448	743	1,414	1,610
GDP Per Capita Growth Rate	3.53	5.69	2.31	7.68	9.13	4.13
Inward FDI stock (million US$)	1,656	5,640	16,338	43,201	205,580	252,331
Outward FDI stock (million US$)	124	495	1,733	9,741	96,900	129,578
BoP (% of Total GDP)	-2.15	-1.51	-0.98	-1.23	-3.20	-1.53
Currency	Rupee					
Inflation	34.74	57.15	82.28	100	151.41	212.52
Population (000)	870,601	960,874	1,053,481	1,144,326	1,230,984	1,295,291
HDI	0.428	0.462	0.496	0.539	0.586	0.609
Russia						
Total GDP (million US$)	_	399,472	259,717	764,015	1,524,916	1,865,327
GDP Growth Rate	_	-4.10	10.04	6.38	4.50	0.60
GDP Per Capita (US$)	_	2,688	1,769	5,308	10,617	13,092
GDP Per Capita Growth Rate	_	-3.99	10.43	6.67	4.56	0.86
Inward FDI stock (million US$)	_	5,601	32,204	180,228	490,560	378,543
Outward FDI stock (million US$)	_	3,345	20,141	146,679	366,301	431,865
BoP (% of Total GDP)	_	1.74	18.03	11.04	4.42	3.19
Currency	Rouble					
Inflation	_	10.31	50.07	100	162.777	213.48
Population (000)	_	148,293	146,400	143,622	143,158	143,429
HDI	0.729	0.697	0.717	0.750	0.783	0.798

Continued…

Appendix 1 continued…

	1990	1995	2000	2005	2010	2014
Denmark						
Total GDP (million US$)	138,095	185,008	164,157	264,559	319,812	342,492
GDP Growth Rate	1.60	3.06	3.75	2.44	1.62	1.10
GDP Per Capita (US$)	26,865	35,356	30,751	48,832	57,613	60,723
GDP Per Capita Growth Rate	1.39	2.65	3.38	2.07	1.14	0.72
Inward FDI stock (million US$)	9,191	23,800	73,573	74,650	96,912	82,921
Outward FDI stock (million US$)	7,341	24,702	73,100	88,075	165,321	183,024
BoP (% of Total GDP)	0.99	1.002	1.38	4.20	5.68	6.27
Currency	Krone					
Inflation	73.43	80.93	90.72	100	111.07	118.47
Population (000)	5,140	5,232	5,338	5,417	5,550	5,646
HDI	0.799	0.830	0.862	0.902	0.908	0.923
Finland						
Total GDP (million US$)	141,524	134,195	125,539	204,430	247,799	269,764
GDP Growth Rate	0.68	4.21	5.63	2.78	2.99	-0.13
GDP Per Capita (US$)	28,380	26,270	24,251	38,966	46,165	49,557
GDP Per Capita Growth Rate	0.29	3.76	5.39	2.43	2.54	-0.44
Inward FDI stock (million US$)	4,276	8,155	24,272	54,801	86,697	133,116
Outward FDI stock (million US$)	9,355	14,444	52,109	81,860	137,663	164,554
BoP (% of Total GDP)	-4.92	3.89	8.38	3.81	2.39	-0.58
Currency	Euro					
Inflation	78.44	87.68	94.38	100	109.63	119.51
Population (000)	4,986	5,108	5,176	5,246	5,367	5,479
HDI	0.783	0.815	0.857	0.869	0.878	0.883
Norway						
Total GDP (million US$)	120,077	152,028	171,314	308,722	428,527	500,080
GDP Growth Rate	1.93	4.19	3.21	2.62	0.60	2.23
GDP Per Capita (US$)	28,317	34,870	38,141	66,759	87,610	98,210
GDP Per Capita Growth Rate	1.42	3.58	2.63	1.83	-0.54	1.24
Inward FDI stock (million US$)	12,391	18,800	30,265	79,135	177,317	185,620
Outward FDI stock (million US$)	10,884	22,519	34,025	99,872	188,996	213,947
BoP (% of Total GDP)	3.324	3.44	14.64	16.18	11.73	8.46
Currency	Krone					
Inflation	72.76	81.83	91.69	100	111.90	118.95
Population (000)	4,240	4,359	4,491	4,624	4,891	5,147
HDI	0.849	0.883	0.917	0.931	0.940	0.944
Sweden						
Total GDP (million US$)	258,154	264,053	259,800	389,042	488,377	569,493
GDP Growth Rate	0.75	4.02	4.74	2.81	5.99	2.10
GDP Per Capita (US$)	30,161	29,915	29,282	43,082	52,053	59,129
GDP Per Capita Growth Rate	0.13	3.58	4.63	2.26	5.17	1.46
Inward FDI stock (million US$)	12,636	31,042	93,791	171,902	347,163	321,103
Outward FDI stock (million US$)	50,719	73,182	123,618	207,835	374,398	379,527
BoP (% of Total GDP)	-2.46	1.87	3.88	6.79	6.02	7.86
Currency	Krona					
Inflation	74.03	90.92	93.01	100	107.87	111.79
Population (000)	8,559	8,826	8,872	9,030	9,382	9,703
HDI	0.815	0.856	0.897	0.892	0.901	0.907

Source: HDI – UNDP, all other indicators from UNCTAD

Note: (1) Base previous year for GDP Growth Rate and GDP Per Capita Growth Rate, (2) Base year 2005 for Inflation

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Appendix 3. Country rankings based on the distance indicators

	Indicator	Home country				Host country			
		Denmark	**Finland**	**Norway**	**Sweden**	**Brazil**	**China**	**India**	**Russia**
1	GDP per capita[b]	7	17	4	11	49	50	61	47
2	Labour force[b]	22	35	15	14	34	7	54	17
3	Total expenditure on education[c]	2	8	31	6	9	46	55	37
4	Literacy rate[b]	1	1	1	1	58	46	59	1
5	Cost of capital[a]	10	13	8	7	61	48	58	52
6	Credit[a]	22	19	6	11	56	42	37	59
7	Rent[b]	23	30	47	40	58	54	57	56
8	Investment in telecommunication[c]	21	38	22	29	5	1	-	8
9	Total expenditure on R&D[c]	22	23	24	15	8	2	14	12
10	Business expenditure on R&D[c]	21	23	24	15	7	2	22	13
11	Bribery and corruption[a]	1	3	12	8	60	40	43	42
12	Government decision[b]	7	41	9	15	58	17	32	40
13	Bureaucracy[a]	5	13	9	6	60	40	28	44
14	Risk of political instability[a]	4	10	3	19	56	22	23	39
15	Intellectual property rights[a]	4	2	15	7	49	50	43	51
16	Protectionism[a]	5	11	13	4	57	45	44	51
17	Government transparency[a]	6	11	2	13	41	60	22	36
18	Legal and regulatory framework[a]	4	23	13	6	58	37	26	47

a. 2016; b. 2015; c. 2014; d. 2015 estimates

Source: World Competitiveness Yearbook (All rankings based on sample of 61 countries)

Note: Items 1-10 are economic indicators and items 11-18 are institutional indicators

Appendix 4. VIF Test

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.192	0.305		7.191	0.000		
GDP	-8.044	0.000	-0.202	-6.039	0.000	0.880	1.136
FC	-0.807	0.151	-0.175	-5.356	0.000	0.920	1.087
ID	-0.190	0.088	-0.071	-2.148	0.032	0.893	1.120
HC Experience	-0.004	0.002	-0.084	-2.608	0.009	0.950	1.052
R&D	-1.000	0.000	-0.074	-2.311	0.021	0.952	1.050
ROE	0.002	0.001	0.073	2.275	0.023	0.958	1.044
Acquisition	0.059	0.029	0.068	2.071	0.039	0.904	1.106
JV	0.070	0.027	0.085	2.623	0.009	0.929	1.076

Dependent Variable: Divestment

Appendix 5. Correlations between factor cost indicators

	Variable	1	2	3	4	5	6	7	8	9	10
1	Divestment	-									
2	Cost of Capital	0.048									
3	Credit availability	0.020	0.535**								
4	Labour cost	-0.099**	0.002	0.359**							
5	Labour force	0.050	0.204**	-0.475**	-0.541**						
6	Literacy rate	0.007	-0.126**	0.242**	0.623**	-0.597**					
7	Public expenditure on education	-0.141**	0.216**	0.332**	0.151**	0.087**	-0.338**				
8	Rent	-0.096**	0.270**	0.457**	0.111**	-0.329**	-0.019	0.395**			
9	Investment in telecommunication	0.123**	0.141**	-0.331**	-0.028	0.449**	0.338**	-0.485**	-0.473**		
10	Total expenditure on R&D	-0.109**	0.171**	0.351**	-0.267**	-0.118**	-0.306**	0.553**	0.388**	-0.444**	
11	Business expenditure on R&D	-0.109**	0.177**	0.293**	-0.321**	-0.049	-0.360**	0.523**	0.377**	-0.405**	0.992**

**$p < 0.01$ (2-tailed)

Appendix 6. Survival analysis results for GDP

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.071	0.109	0.129	0.121	0.149	0.122	0.127	0.122	0.148	0.122
Diversity	0.006	0.009	-0.005	0.010	-0.005	0.010	-0.005	0.010	-0.005	0.010
Time1999	1.0992**	0.393	0.680	0.475	0.782	0.503	0.663	0.477	0.782	0.503
Time2006	0.617	0.406	0.365	0.441	0.422	0.463	0.346	0.444	0.421	0.464
Food	0.807***	0.205	0.496*	0.216	0.421ǂ	0.220	0.481*	0.218	0.417ǂ	0.222
Paper	-0.015	0.307	-0.235	0.313	-0.362	0.315	-0.251	0.314	-0.367	0.318
Chemical	0.442ǂ	0.244	0.330	0.246	0.313	0.246	0.332	0.246	0.313	0.247
Machinery	-0.575*	0.286	-0.578*	0.287	-0.595*	0.287	-0.578*	0.287	-0.594*	0.288
Electronics	0.291	0.214	0.281	0.213	0.326	0.214	0.281	0.213	0.325	0.214
Main effects										
GDP			-0.002ǂ	0.001	-0.004**	0.001	-0.001	0.001	-0.004*	0.002
HC experience			-0.007	0.011	0.026	0.041	-0.007	0.010	0.025	0.042
R&D			-0.304***	0.825	-0.541***	0.061	-0.313***	0.839	-0.508***	0.077
ROE			-0.015**	0.005	-0.028	0.017	0.015**	0.005	-0.028	0.017
Acquisition			0.278ǂ	0.166	0.224	0.166	0.593	0.589	0.297	0.561
JV			0.225	0.158	0.213	0.157	0.072	0.589	0.210	0.560
Interaction effects										
GDP×HC experience					-1.078	1.428			-1.045	1.474
GDP×R&D					-0.874***	0.380			-1.866***	0.433
GDP×ROE					-0.340**	0.063			-1.346**	0.091
GDP×Acquisition							-0.001	0.001	-0.417	0.001
GDP×JV							0.060	0.001	0.633	0.001
2- Log likelihood	2434.703		2389.720		2373.064		2389.379		2373.045	
Chi-square	47.592***		81.237***		90.436***		93.925***		93.875***	
Degree of freedom	9		15		18		17		20	
Incremental Chi-square	47.301***		92.284***		108.941***		92.625***		108.959***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906; Exits=191

Appendix 7. Survival analysis results for FC

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.071	0.109	0.100	0.121	0.145	0.124	0.102	0.122	0.145	0.125
Diversity	0.006	0.009	-0.006	0.010	-0.017	0.011	-0.006	0.010	-0.016	0.011
Time1999	1.0992**	0.393	1.080**	0.397	1.030**	0.399	1.096**	0.398	1.044**	0.400
Time2006	0.617	0.406	0.632	0.407	0.473	0.412	0.645	0.408	0.491	0.413
Food	0.807***	0.205	0.383ǂ	0.217	0.181	0.232	0.380ǂ	0.218	0.183	0.234
Paper	-0.015	0.307	-0.192	0.309	-0.146	0.310	-0.200	0.309	-0.155	0.310
Chemical	0.442ǂ	0.244	0.244	0.246	0.283	0.247	0.257	0.247	0.295	0.247
Machinery	-0.575*	0.286	-0.455	0.288	-0.490ǂ	0.289	-0.454	0.289	-0.487ǂ	0.289
Electronics	0.291	0.214	0.374ǂ	0.213	0.333	0.217	0.383ǂ	0.215	0.331	0.219
Main effects										
FC			-0.112***	0.918	0.559	1.171	-0.484ǂ	1.481	0.955	1.637
HC experience			-0.010	0.010	0.481*	0.237	-0.009	0.011	0.539*	0.249
R&D			-0.037***	0.974	1.164	1.731	-0.051***	0.039	0.596	0.001
ROE			0.010*	0.005	0.293***	0.059	0.010*	0.005	0.292***	0.059
Acquisition			0.202	0.167	0.209	0.171	-0.692	0.172	-1.622	0.290
JV			0.293ǂ	0.158	0.284ǂ	0.160	0.786	0.087	0.634	0.141
Interaction effects										
FC×HC experience					-0.284*	0.139			-0.318*	0.146
FC×R&D					-0.166	0.723			-0.446	1.001
FC×ROE					-0.162***	0.033			-0.162***	0.033
FC×Acquisition							0.510	1.808	1.044	1.874
FC×JV							-1.419	1.755	-1.335	1.781
2- Log likelihood	2434.703		2381.277		2354.286		2380.584		2353.527	
Chi-square	47.592***		92.284***		147.731***		96.691***		150.890***	
Degree of freedom	9		15		18		17		20	
Incremental Chi-square	47.301***		100.728***		127.718***		101.421***		128.478***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906; Exits=191

Appendix 8. Survival analysis results for separate effects of factor cost indicators

	1	2	3[a]	4	5	6	7	8	9	10
Controls										
Sales	0.145	0.145	0.072	0.149	0.144	0.109	0.138	0.132	0.142	0.144
Diversity	-0.006	-0.006	0.001	-0.006	-0.006	-0.004	-0.007	-0.006	-0.006	-0.006
Time1999	1.167**	1.150**	0.719	1.135**	1.152**	1.054**	1.189**	1.090**	1.136**	1.138**
Time2006	0.685ǂ	0.683	0.434	0.676ǂ	0.655	0.595	0.775ǂ	0.637	0.664	0.665
Food	0.487*	0.487	0.877***	0.478*	0.469*	0.464*	0.441*	0.414ǂ	0.472*	0.478*
Paper	-0.173	-0.178	-0.270	-0.176	-0.193	-0.208	-0.153	-0.213	-0.180	-0.180
Chemical	0.318	0.314	0.470ǂ	0.311	0.313	0.314	0.326	0.321	0.308	0.309
Machinery	-0.564*	-0.561ǂ	-0.829*	-0.560ǂ	-0.560ǂ	-0.528ǂ	-0.539ǂ	-0.525ǂ	-0.554ǂ	-0.559ǂ
Electronics	0.305	0.310	0.147	0.312	0.301	0.307	0.319	0.303	0.313	0.310
Main effects										
Factor cost	-0.015	-0.011	-0.061***	0.005	-0.003	-0.009	-0.002	-0.615ǂ	-0.019	-0.013
HC experience	-0.007	-0.007	-0.006	-0.007	-0.007	-0.007	-0.006	-0.009	-0.007	-0.007
R&D	-0.527***	-0.507***	-0.298***	-0.528***	-0.506***	-0.216***	-0.464***	-0.409***	-0.451***	-0.481***
ROE	0.014**	0.014**	0.010ǂ	0.014**	0.013**	0.014**	0.014**	0.013**	0.013**	0.013**
Acquisition	0.283ǂ	0.283ǂ	0.075	0.280ǂ	0.271	0.281ǂ	0.290ǂ	0.245	0.283ǂ	0.282ǂ
JV	0.240	0.248	0.067	0.254	0.240	0.247	0.245	0.279ǂ	0.247	0.245

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906; Exits=191 (a. N=758 and Exits=161)

1 Cost of Capital 2 Credit availability 3 Labour cost 4 Labour force

5 Literacy rate 6 Total public expenditure on education 7 Rent 8 Investment in telecommunication

9 Total expenditure on R&D 10 Business expenditure on R&D

Appendix 9. Survival analysis results for Low ID

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.025	0.163	0.257	0.195	0.265	0.196	0.190	0.202	0.184	0.204
Diversity	0.020ǂ	0.011	-0.001	0.013	0.001	0.013	0.005	0.014	0.007	0.014
Time1999	1.073*	0.522	1.354*	0.530	1.196*	0.538	1.402**	0.536	1.183	0.542
Time2006	0.715	0.546	0.980ǂ	0.551	0.860	0.556	1.064ǂ	0.561	0.919	0.563
Food	0.909**	0.296	0.433	0.351	0.455	0.355	0.461	0.356	0.471	0.360
Paper	0.431	0.380	0.199	0.385	0.218	0.387	0.192	0.386	0.221	0.387
Chemical	0.538ǂ	0.316	0.383	0.321	0.370	0.320	0.393	0.325	0.393	0.325
Machinery	-0.240	0.340	-0.172	0.347	-0.136	0.349	-0.190	0.347	-0.139	0.351
Electronics	0.272	0.311	0.574ǂ	0.314	0.551ǂ	0.315	0.581ǂ	0.320	0.563ǂ	0.322
Main effects										
Low ID			-3.552*	1.417	-4.783ǂ	2.472	-5.069*	2.273	-6.930*	3.182
HC experience			0.001	0.013	0.279	0.239	0.001	0.013	0.429	0.268
R&D			-0.660**	0.202	-0.608	0.851	-0.540**	0.190	-0.305	0.892
ROE			0.023***	0.006	-0.158	0.169	0.021***	0.006	-0.226	0.184
Est. mode			0.119	0.241	0.098	0.245	-6.963	4.366	-0.406*	4.536
Ownership mode			0.290	0.221	0.306	0.227	1.649	4.174	2.579	4.243
Interaction effects										
ID x HC experience					-0.190	0.165			-0.293	0.186
ID x R&D					0.360	0.887			0.431	0.917
ID x ROE					0.120	0.112			0.165	0.122
ID x Est. mode							4.757	2.923	0.381*	3.035
ID x Ownership mode							-0.934	2.783	-1.541	2.824
2- Log likelihood	1160.872		1120.534		1118.173		1120.534		1113.501	
Chi-square	28.194***		63.619***		66.011***		63.619***		72.332***	
Degree of freedom	9		15		18		15		20	
Incremental Chi-square	27.363***		67.701***		70.062***		67.701***		74.734***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=456; Exits=103

Appendix 10. Survival analysis results for High ID

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.026	0.150	0.111	0.168	0.106	0.172	0.118	0.168	0.106	0.171
Diversity	-0.023	0.017	-0.028	0.019	-0.026	0.019	-0.028	0.019	-0.026	0.019
Time1999	1.089ǂ	0.598	1.164ǂ	0.608	1.072ǂ	0.613	1.146ǂ	0.608	1.047ǂ	0.613
Time2006	0.473	0.612	0.443	0.615	0.358	0.617	0.432	0.615	0.342	0.618
Food	0.678*	0.285	0.229	0.312	0.124	0.330	0.272	0.318	0.155	0.332
Paper	-0.463	0.540	-0.813	0.546	-0.686	0.548	-0.815	0.546	-0.710	0.549
Chemical	0.399	0.399	0.209	0.402	0.251	0.402	0.210	0.401	0.250	0.401
Machinery	-1.173ǂ	0.604	-1.159ǂ	0.610	-1.226*	0.612	-1.194ǂ	0.612	-1.282*	0.615
Electronics	0.359	0.295	0.228	0.300	0.195	0.303	0.213	0.305	0.169	0.307
Main effects										
High ID			3.305*	1.656	-0.890	2.605	3.683	2.377	0.043	3.202
HC experience			-0.021	0.020	-0.206	0.570	-0.021	0.021	-0.285	0.579
R&D			-0.008	0.006	-0.560*	0.222	-0.008	0.006	-0.559*	0.223
ROE			-0.087*	0.427	0.382	0.854	-0.113*	0.428	0.134	0.041
Est. mode			0.352	0.249	0.410	0.251	5.156	6.030	7.987	6.636
Ownership mode			0.150	0.234	0.118	0.238	-2.301	5.856	-2.552	5.831
Interaction effects										
ID x HC experience					0.104	0.318			0.147	0.322
ID x R&D					-1.500	0.155			-0.002	0.261
ID x ROE					0.313*	0.126			0.312*	0.126
ID x Est. mode							-2.661	3.340	-4.198	3.677
ID x Ownership mode							1.352	3.236	1.478	3.225
2- Log likelihood	1001.219		976.290		970.369		975.603		969.030	
Chi-square	28.581***		50.999***		62.232***		51.621***		63.234***	
Degree of freedom	9		15		18		17		20	
Incremental Chi-square	30.234***		55.172***		61.093***		55.860***		62.432***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=450; Exits=88

Appendix 11. Survival analysis results for ED and ID when entered in the same model

	Model 1		**Model 2**		**Model 3**		Model 4	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls								
Sales	-0.071	0.109	0.085	0.122	0.169	0.126	0.082	0.123
Diversity	0.006	0.009	-0.005	0.010	-0.013	0.011	-0.004	0.010
Time1999	1.099**	0.393	0.445	0.490	0.498	0.513	0.476	0.497
Time2006	0.617	0.406	0.240	0.448	0.145	0.472	0.263	0.455
Food	0.807***	0.205	0.453*	0.223	0.165	0.243	0.439ǂ	0.228
Paper	-0.015	0.307	-0.300	0.312	-0.307	0.315	-0.332	0.313
Chemical	0.442ǂ	0.244	0.239	0.247	0.282	0.248	0.248	0.248
Machinery	-0.575*	0.286	-0.539ǂ	0.292	-0.589*	0.294	-0.535ǂ	0.292
Electronics	0.291	0.214	0.360ǂ	0.214	0.306	0.218	0.369ǂ	0.216
Main effects								
GDP			-0.002*	0.001	-0.002	0.001	-0.002	0.001
FC			-0.370*	1.175	0.586	1.442	-1.822	1.607
ID			-0.313	0.282	-0.522	0.254	-0.506	0.458
ID Sq			2.543	3.712	3.889	4.004	3.192	3.761
HC experience			-0.010	0.010	-0.468ǂ	0.276	-0.009	0.010
R&D			-0.965***	0.976	-0.923	0.663	-0.975***	0.043
ROE			0.011*	0.005	0.300***	0.084	0.011*	0.005
Est. mode			0.193	0.169	0.177	0.172	-0.967	0.348
Ownership mode			0.264ǂ	0.158	0.242	0.161	0.628	0.118
Interaction effects								
GDP x HC experience					-0.039	0.380		
GDP x R&D					-0.995***	0.820		
GDP x ROE					-0.407	0.168		
GDP x Est. mode							-0.001	0.001
GDP x Ownership mode							0.027	0.001
FC x HC experience					-0.260ǂ	0.155		
FC x R&D					-0.099	0.484		
FC x ROE					-0.164***	0.041		
FC x Est. mode							0.905	1.854
FC x Ownership mode							-1.383	1.732
ID x HC experience								
ID x R&D								
ID x ROE								
ID x Est. mode								
ID x Ownership mode								
2- Log likelihood	2434.703		2373.799		2335.972		2372.234	
Chi-square	47.592***		103.288***		164.396***		110.765***	
Degree of freedom	9		18		24		22	
Incremental Chi-square	47.301***		0.465		0.929		0.710	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906; Exits=191

Continued…

Appendix 11 continued…

	Model 5		Model 6		Model 7		Model 8		Model 9	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.166	0.127	0.117	0.124	0.074	0.123	0.106	0.126	0.163	0.130
Diversity	-0.012	0.011	-0.008	0.010	-0.004	0.010	-0.008	0.011	-0.010	0.011
Time1999	0.538	0.515	0.486	0.494	0.448	0.491	0.482	0.495	0.453	0.515
Time2006	0.176	0.474	0.232	0.451	0.241	0.450	0.233	0.453	0.107	0.475
Food	0.147	0.249	0.342	0.232	0.458*	0.226	0.357	0.234	0.182	0.258
Paper	-0.332	0.317	-0.299	0.313	-0.305	0.312	-0.301	0.313	-0.300	0.317
Chemical	0.288	0.249	0.241	0.247	0.248	0.247	0.251	0.247	0.309	0.249
Machinery	-0.574ǂ	0.295	-0.544ǂ	0.292	-0.533ǂ	0.293	-0.536ǂ	0.294	-0.615*	0.301
Electronics	0.306	0.221	0.380ǂ	0.214	0.364ǂ	0.216	0.385ǂ	0.216	0.258	0.223
Main effects										
GDP	-0.002	0.002	-0.002*	0.001	-0.002*	0.001	-0.002*	0.001	-0.002	0.002
FC	1.924	1.813	-0.634*	1.199	-0.395*	0.176	-0.622*	1.199	0.387ǂ	1.916
ID	-0.003	0.302	-0.706	0.074	-0.607	0.285	-0.176	0.117	-0.052	0.711
ID Sq	4.327	4.016	1.309	3.931	2.653	3.703	1.480	3.930	4.145	4.122
HC experience	-0.497ǂ	0.280	-0.137	0.098	-0.009	0.010	-0.149	0.099	-0.524ǂ	0.289
R&D	-0.258	0.687	-0.421	0.645	-0.951***	0.990	-0.902	0.025	-0.485	0.884
ROE	0.302***	0.085	0.118*	0.050	0.011*	0.005	0.118*	0.050	0.311***	0.086
Est. mode	-1.195	0.472	0.195	0.170	-0.700	1.483	-0.602	1.549	-2.205	3.578
Ownership mode	0.311	0.201	0.274ǂ	0.159	1.270	1.501	1.317	1.515	2.299	3.390
Interaction effects										
GDP x HC experience	-0.492	0.001							-0.451	0.404
GDP x R&D	-0.930***	0.931							-0.055***	0.799
GDP x ROE	-0.232	0.188							-0.656	0.195
GDP x Est. mode	-0.001	0.001							-0.761	0.002
GDP x Ownership mode	-0.717	1.000							-0.712	0.001
FC x HC experience	-0.279ǂ	0.158							-0.269	0.197
FC x R&D	-0.903	0.615							-0.133	0.014
FC x ROE	-0.165***	0.041							-0.276***	0.059
FC x Est. mode	0.980	1.904							0.601	2.060
FC x Ownership mode	-1.080	1.768							-0.390	1.853
ID x HC experience			-0.094	0.063			-0.100	0.063	-0.027	0.078
ID x R&D			-0.485	0.323			-0.542	0.558	0.377	0.226
ID x ROE			-0.067*	0.031			-0.067*	0.031	-0.110**	0.043
ID x Est. mode					0.549	0.898	0.490	0.939	0.937	1.067
ID x Ownership mode					-0.619	0.912	-0.638	0.918	-0.715	1.022
2- Log likelihood	2334.798		2365.860		2373.070		2365.200		2327.530	
Chi-square	171.800***		115.036***		104.318***		116.125***		177.224***	
Degree of freedom	28		21		20		23		33	
Incremental Chi-square	1.139		0.110		0.507		0.141		0.992	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=906; Exits=191

Appendix 12. Survival analysis results for ED using Denmark based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.414	0.352	0.644	0.469	1.249	0.681	0.627	0.466	1.270ǂ	0.706
Diversity	-0.029	0.031	-0.023	0.038	-0.015	0.049	-0.024	0.039	-0.017	0.056
Time1999	0.868	0.113	0.587	0.581	0.836	0.870	0.347	0.834	0.119	0.261
Time2006	0.424	0.114	0.603	0.578	0.184	0.868	0.387	0.829	0.439	0.259
Food	0.310	0.674	0.225	0.703	0.397	0.762	0.187	0.715	0.410	0.781
Paper	1.174	1.101	0.655	1.180	1.088	1.230	0.680	1.204	1.185	1.273
Chemical	0.223	1.103	0.129	1.136	-0.164	1.337	0.082	1.146	-0.085	1.397
Machinery	1.354*	0.596	1.095	0.679	1.398*	0.715	1.082	0.688	1.376ǂ	0.736
Electronics	1.709**	0.650	0.818	0.784	1.469ǂ	0.817	0.913	0.819	1.549ǂ	0.883
Main effects										
GDP			-0.003	0.006	-0.003*	0.001	-0.004	0.009	-0.003ǂ	0.002
FC			-0.877	0.910	0.353	0.416	-0.370	0.093	0.865	0.663
HC experience			0.008	0.026	0.613ǂ	0.477	0.006	0.028	0.206ǂ	0.666
R&D			1.082	0.251	0.918	0.297	1.011	0.661	0.488	0.001
ROE			0.044*	0.019	-0.111	0.420	0.043*	0.020	-0.122	0.445
Acquisition			0.046	0.645	0.036	0.721	0.782	0.889	0.351	0.888
JV			0.979ǂ	0.581	1.360*	0.691	-0.920	0.684	0.679	0.858
Interaction effects										
GDP×HC experience					-0.191	0.001			-1.095	0.001
GDP×R&D					-0.492	0.018			-0.304	0.577
GDP×ROE					-0.002*	0.925			-0.002*	0.001
GDP×Acquisition							-0.001	0.001	0.007	0.002
GDP×JV							0.003	0.001	0.005	0.001
FC×HC experience					-0.560	0.776			-0.911ǂ	0.890
FC×R&D					-3.840	0.110			-0.983	0.602
FC×ROE					-0.317	0.314			-0.319	0.330
FC×Acquisition							-0.404	0.056	-0.337	0.578
FC×JV							0.188	0.537	-0.385	0.764
2- Log likelihood	219.942		204.347		190.774		203.903		190.440	
Chi-square	19.005*		41.322***		50.931***		42.388**		52.422**	
Degree of freedom	9		16		20		20		26	
Incremental Chi-square	19.696*		35.292**		48.864***		5.736*		49.198**	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=200; Exits=23

Appendix 13. Survival analysis results for ED using Finland based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.065	0.182	0.206	0.213	0.260	0.231	0.213	0.210	0.240	0.227
Diversity	0.047ǂ	0.024	0.037	0.026	0.041	0.026	0.040	0.026	0.045ǂ	0.027
Time1999	0.528	0.488	-0.945	0.786	-0.983	0.807	-0.701	0.810	-0.693	0.839
Time2006	0.427	0.489	-0.579	0.620	-0.542	0.637	-0.367	0.640	-0.354	0.659
Food	0.827*	0.347	0.409	0.424	0.290	0.479	0.289	0.468	0.234	0.489
Paper	-1.399*	0.618	-1.651**	0.634	-1.535*	0.639	-1.627*	0.645	-1.483*	0.644
Chemical	-0.458	0.438	-0.560	0.443	-0.485	0.445	-0.567	0.443	-0.508	0.444
Machinery	-0.253*	1.019	-0.317*	1.028	-2.407*	1.060	-0.314*	1.030	-0.465*	1.078
Electronics	0.712*	0.301	0.572ǂ	0.308	0.567ǂ	0.318	0.644*	0.307	0.601ǂ	0.312
Main effects										
GDP			-0.005ǂ	0.002	-0.002	0.003	-0.004	0.003	-0.001	0.003
FC			-0.617	1.716	0.409	2.396	1.490	2.301	0.672	2.861
HC experience			-0.037	0.034	1.120	1.037	-0.040	0.036	0.846	1.057
R&D			-0.970***	0.161	-0.162	0.363	-0.611***	0.256	-1.675	0.922
ROE			-0.003	0.005	0.383*	0.157	-0.004	0.005	0.388*	0.163
Acquisition			-0.411	0.321	-0.406	0.326	5.668	0.695	0.390	0.894
JV			0.121	0.267	0.112	0.273	5.534	0.480	0.368	0.665
Interaction effects										
GDP×HC experience					-0.981	0.333			-0.296	0.424
GDP×R&D					1.927	0.368			0.709	0.804
GDP×ROE					-0.001	0.001			-1.041	1.110
GDP×Acquisition							0.002	0.003	0.004	0.004
GDP×JV							-0.003	0.003	-0.001	0.003
FC×HC experience					-0.584	0.599			-0.404	0.615
FC×R&D					1.657	0.506			0.000	0.815
FC×ROE					-0.192*	0.080			-0.199*	0.084
FC×Acquisition							-0.857	0.759	-5.624	0.395
FC×JV							-0.569	0.087	-0.689	0.172
2- Log likelihood	758.583		737.950		728.856		734.794		725.071	
Chi-square	32.341***		54.025***		70.281***		57.214***		74.161***	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	35.601***		56.233***		65.328***		59.390***		69.113***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=307; Exits=75

Appendix 14. Survival analysis results for ED using Norway based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.505	0.622	0.695	0.726	0.507	0.701	0.593	0.829	0.037	0.737
Diversity	0.010	0.025	-0.022	0.031	-0.035	0.037	-0.012	0.036	-0.049	0.042
Time1999	0.740	0.159	0.828	0.687	0.387	0.726	0.440	0.944	0.136	0.720
Time2006	0.680	0.160	0.499	0.682	0.938	0.719	0.924	0.934	0.756	0.715
Food	1.565***	0.472	1.204ǂ	0.701	1.763ǂ	0.912	1.788*	0.906	0.050*	1.031
Paper	0.712	0.694	0.157	0.834	-0.836	1.216	0.031	0.938	-1.332	1.320
Chemical	0.889*	0.444	1.131*	0.470	1.301*	0.511	1.706**	0.553	1.946***	0.611
Machinery	0.389	0.695	0.251	0.796	0.034	0.908	0.380	0.844	0.145	0.896
Electronics	-0.599	0.738	-0.585	0.338	-0.529	0.965	-0.631	0.997	-0.556	0.597
Main effects										
GDP			-0.004ǂ	0.002	-0.008ǂ	0.004	-0.005	0.004	-0.001*	0.009
FC			0.588	0.184	-0.580	0.408	0.921	0.032	0.088	0.364
HC experience			0.022	0.025	-0.425*	0.254	0.054ǂ	0.030	-0.491*	0.632
R&D			0.578	0.193	-0.298	0.001	0.343	0.003	-0.002	0.001
ROE			0.017	0.011	0.723	0.707	0.004	0.013	1.169	0.824
Acquisition			-0.226	0.445	-0.125	0.494	-0.619	0.280	-0.248	0.259
JV			0.157	0.473	-0.004	0.545	0.613	0.944	0.136*	0.664
Interaction effects										
GDP×HC experience					-0.001ǂ	0.991			-0.001ǂ	0.216
GDP×R&D					0.354*	0.558			0.223	0.463
GDP×ROE					0.525	0.452			0.377	0.052
GDP×Acquisition							-0.001ǂ	0.007	-0.003	0.001
GDP×JV							0.005*	0.007	0.001ǂ	0.001
FC×HC experience					-0.362*	0.100			-0.021*	2.332
FC×R&D					0.348	0.396			0.001	0.001
FC×ROE					-0.468	0.443			-0.739	0.519
FC×Acquisition							0.260	0.432	0.009	0.715
FC×JV							0.458	0.587	0.024*	0.602
2- Log likelihood	308.417		300.973		268.421		293.172		278.005	
Chi-square	25.681**		33.850**		42.949**		35.126*		44.434*	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	26.814**		34.258**		48.810***		42.060**		57.227***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=86; Exits=42

Appendix 15. Survival analysis results for ED using Sweden based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.443ǂ	0.263	-0.048	0.325	0.049	0.339	-0.142	0.347	-0.051	0.361
Diversity	-0.016	0.023	-0.035	0.024	-0.037	0.024	-0.034	0.024	-0.036	0.024
Time1999	1.478*	0.736	0.102*	1.260	0.265*	1.331	0.746*	1.869	0.400**	0.035
Time2006	-0.789	1.007	0.264	1.187	0.390	1.249	1.295	1.518	1.775	1.616
Food	1.004ǂ	0.525	0.693	0.575	0.725	0.574	0.518	0.586	0.527	0.589
Paper	0.273	0.463	0.112	0.470	0.151	0.473	0.012	0.491	0.037	0.496
Chemical	0.627	0.501	0.756	0.511	0.736	0.513	0.895ǂ	0.515	0.947ǂ	0.526
Machinery	-1.033ǂ	0.547	-1.006ǂ	0.559	-1.174*	0.600	-1.101ǂ	0.571	-1.245*	0.602
Electronics	-0.164	0.477	-0.252	0.486	-0.254	0.493	-0.306	0.508	-0.261	0.519
Main effects										
GDP			-0.007	0.004	-0.004	0.007	-0.002*	0.008	-0.002ǂ	0.001
FC			-0.944	0.978	-0.898	0.544	-0.752	0.487	-0.476	0.634
HC experience			-0.017	0.017	0.075	0.832	-0.016	0.018	-0.317	0.889
R&D			-0.001	0.454	0.256	0.156	-1.013	0.539	-0.001	0.251
ROE			-0.036ǂ	0.021	0.504	0.632	-0.046*	0.023	0.248	0.691
Acquisition			1.056**	0.335	1.002**	0.341	0.462ǂ	0.837	0.617*	0.626
JV			-0.201	0.303	-0.163	0.307	-6.139	0.390	-0.084	0.743
Interaction effects										
GDP×HC experience					0.002	0.002			0.429	0.889
GDP×R&D					-0.593	0.487			-0.220ǂ	0.751
GDP×ROE					0.502	0.532			0.760	0.004
GDP×Acquisition							-0.009	0.007	-0.008	0.006
GDP×JV							0.001	0.008	0.001ǂ	0.009
FC×HC experience					-0.092	0.477			0.130	0.514
FC×R&D					-0.949	0.224			-1.239	0.310
FC×ROE					-0.303	0.343			-0.167	0.376
FC×Acquisition							0.086	0.683	0.007ǂ	0.121
FC×JV							0.280	0.078	0.727	0.333
2- Log likelihood	511.716		485.087		481.357		474.466		470.350	
Chi-square	72.669***		97.676***		103.679***		107.663***		114.964***	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	52.686***		79.314***		83.045***		89.935***		94.051***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=313; Exits=51

Appendix 16. Survival analysis results for ID using Denmark based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.414	0.352	0.619	0.461	0.656	0.494	0.627	0.479	0.628	0.506
Diversity	-0.029	0.031	-0.024	0.038	-0.011	0.042	-0.021	0.038	0.002	0.042
Time1999	9.868	98.113	9.970	118.238	8.351	95.738	10.087	130.641	8.306	97.267
Time2006	8.424	98.114	8.885	118.239	7.762	95.740	9.005	130.642	7.919	97.269
Food	0.310	0.674	0.243	0.699	0.298	0.716	0.257	0.715	0.330	0.721
Paper	1.174	1.101	0.287	1.232	0.659	1.294	0.054	1.278	0.338	1.328
Chemical	0.223	1.103	0.020	1.141	-0.441	1.372	0.089	1.145	-0.267	1.355
Machinery	1.354*	0.596	1.051	0.672	0.912	0.690	1.123ǂ	0.678	0.980	0.702
Electronics	1.709**	0.650	0.880	0.765	0.839	0.802	0.917	0.786	0.847	0.817
Main effects										
ID			-3.592	2.423	-2.343	3.773	-2.806	3.158	-4.087	5.223
HC experience			-0.001	0.028	2.581	1.728	-0.002	0.029	2.670	1.673
R&D			0.507	0.367	0.874	0.070	0.695	0.209	0.410	0.135
ROE			0.044*	0.019	-0.214	0.220	0.046*	0.019	-0.228	0.236
Acquisition			0.001	0.641	0.247	0.685	-2.992	8.009	-7.497	8.750
JV			1.023ǂ	0.566	0.903	0.578	7.149	7.178	5.223	7.144
Interaction effects										
ID × HC experience					-1.809	1.228			-1.878	1.190
ID × R&D					-0.166	0.632			0.887	0.586
ID × ROE					0.165	0.143			0.177	0.153
ID × Acquisition							1.915	5.048	5.004	5.561
ID × JV							-3.862	4.524	-2.749	4.502
2- Log likelihood	219.942		203.726		197.000		202.994		196.019	
Chi-square	19.005*		41.419***		52.256***		42.993***		55.175***	
Degree of freedom	9		15		18		17		20	
Incremental Chi-square	19.696*		35.912**		42.639***		36.644**		43.620**	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=200; Exits=23

Appendix 17. Survival analysis results for ID using Finland based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.065	0.182	0.137	0.215	0.147	0.216	0.121	0.220	0.124	0.221
Diversity	0.047ǂ	0.024	0.035	0.027	0.036	0.026	0.037	0.027	0.037	0.027
Time1999	0.528	0.488	0.303	0.521	0.291	0.523	0.281	0.524	0.273	0.525
Time2006	0.427	0.489	0.192	0.511	0.193	0.516	0.208	0.513	0.211	0.518
Food	0.827*	0.347	0.586	0.427	0.626	0.442	0.713	0.440	0.716	0.450
Paper	-1.399*	0.618	-1.538*	0.630	-1.615*	0.641	-1.601*	0.636	-1.649**	0.643
Chemical	-0.458	0.438	-0.545	0.446	-0.601	0.452	-0.595	0.449	-0.635	0.454
Machinery	-2.253*	1.019	-2.257*	1.027	-2.350*	1.045	-2.286*	1.032	-2.353*	1.049
Electronics	0.712*	0.301	0.528ǂ	0.314	0.546ǂ	0.316	0.559ǂ	0.318	0.563ǂ	0.320
Main effects										
ID			-9.345	24.808	-11.304	25.177	-9.122	24.999	-9.954	25.445
ID Square			2.478	7.446	3.115	7.572	2.578	7.488	2.861	7.631
HC experience			-0.036	0.034	0.207	0.287	-0.037	0.034	0.166	0.293
R&D			-0.502***	0.168	-0.793	0.758	-0.576***	0.174	-0.193	0.002
ROE			-0.003	0.005	-0.007	0.051	-0.003	0.005	-0.015	0.053
Acquisition			-0.313	0.315	-0.327	0.317	2.711	3.052	2.217	3.271
JV			0.165	0.264	0.178	0.264	0.910	2.822	1.176	2.875
Interaction effects										
ID × HC experience					-0.137	0.163			-0.114	0.166
ID × R&D					0.793	0.542			0.395	0.001
ID × ROE					0.003	0.031			0.007	0.032
ID × Acquisition							-1.727	1.743	-1.449	1.865
ID × JV							-0.420	1.611	-0.566	1.638
2- Log likelihood	758.583		740.205		739.389		739.082		738.578	
Chi-square	32.341***		50.887***		51.840***		51.752***		52.618***	
Degree of freedom	9		16		19		18		21	
Incremental Chi-square	35.601***		0.111		0.169		0.118		0.141	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=307; Exits=75

Appendix 18. Survival analysis results for ID using Norway based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.505	0.622	0.684	0.689	0.663	0.751	0.716	0.684	0.764	0.734
Diversity	0.010	0.025	-0.004	0.030	-0.006	0.030	-0.010	0.033	-0.022	0.033
Time1999	9.740	62.160	10.163	73.822	10.759	71.287	10.257	73.679	11.231	69.137
Time2006	9.680	62.160	10.167	73.822	10.533	71.287	10.203	73.679	10.856	69.135
Food	1.565***	0.472	1.099ǂ	0.646	1.077ǂ	0.625	1.189ǂ	0.677	1.330*	0.663
Paper	0.712	0.694	0.549	0.785	0.671	0.819	0.497	0.797	0.564	0.838
Chemical	0.889*	0.444	0.933*	0.452	1.043*	0.467	1.013*	0.480	1.313*	0.525
Machinery	0.389	0.695	0.410	0.779	0.429	0.801	0.457	0.809	0.646	0.833
Electronics	-8.599	75.738	-8.505	77.662	-8.718	80.566	-8.475	77.290	-8.656	79.978
Main effects										
ID			-0.947	2.669	-4.094	3.759	1.494	5.733	1.267	6.134
HC experience			0.019	0.026	-0.903	0.721	0.021	0.028	-1.035	0.735
R&D			-0.123	0.975	-0.068	0.969	-0.108	0.034	-0.404	0.336
ROE			0.016	0.010	0.118	0.247	0.017	0.011	0.146	0.251
Acquisition			-0.321	0.421	-0.151	0.429	1.973	8.469	4.736	8.508
JV			0.324	0.463	0.396	0.475	3.816	7.667	10.224	8.723
Interaction effects										
ID × HC experience					0.661	0.519			0.758	0.528
ID × R&D					0.999	0.358			0.583	0.617
ID × ROE					-0.069	0.165			-0.085	0.167
ID × Acquisition							-1.554	5.752	-3.272	5.805
ID × JV							-2.397	5.266	-6.743	5.971
2- Log likelihood	308.417		304.487		301.477		304.225		299.910	
Chi-square	25.681**		31.276**		33.449*		31.559*		34.483*	
Degree of freedom	9		15		18		17		20	
Incremental Chi-square	26.814**		30.744**		33.755*		31.007*		35.321*	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=86; Exits=42

Appendix 19. Survival analysis results for ID using Sweden based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.443ǂ	0.263	-0.087	0.319	-0.089	0.322	-0.118	0.329	-0.108	0.332
Diversity	-0.016	0.023	-0.033	0.024	-0.035	0.024	-0.034	0.024	-0.036	0.024
Time1999	1.478*	0.736	1.713*	0.769	1.642*	0.775	1.590*	0.780	1.493ǂ	0.785
Time2006	-0.789	1.007	-0.592	1.027	-0.702	1.039	-0.679	1.033	-0.802	1.047
Food	1.000ǂ	0.525	0.837	0.608	0.901	0.613	0.862	0.636	0.965	0.644
Paper	0.273	0.463	0.171	0.476	0.199	0.480	0.191	0.478	0.221	0.482
Chemical	0.627	0.501	0.775	0.511	0.785	0.513	0.663	0.529	0.649	0.531
Machinery	-1.034	0.547	-1.039ǂ	0.565	-1.129ǂ	0.585	-1.048ǂ	0.569	-1.134ǂ	0.588
Electronics	-0.164	0.477	-0.210	0.487	-0.238	0.498	-0.175	0.500	-0.182	0.513
Main effects										
ID			102.796	126.488	100.975	127.041	120.043	129.730	122.317	130.709
ID Square			-31.162	38.330	-31.330	38.510	-36.489	39.445	-37.918	39.747
HC experience			-0.016	0.017	0.042	0.274	-0.016	0.017	0.049	0.275
R&D			-0.150	0.501	-0.824	0.232	-0.099	0.467	-0.069	0.001
ROE			-0.037ǂ	0.021	-0.294	0.315	-0.037ǂ	0.021	-0.278	0.320
Acquisition			1.083**	0.343	1.078**	0.343	-1.928	4.956	-2.656	5.137
JV			-0.241	0.307	-0.185	0.313	2.273	4.514	2.954	4.621
Interaction effects										
ID×HC experience					-0.035	0.164			-0.039	0.165
ID×R&D					0.941	0.161			0.668	0.512
ID×ROE					0.159	0.197			0.150	0.200
ID×Acquisition							1.861	3.048	2.307	3.157
ID×JV							-1.536	2.740	-1.915	2.800
2- Log likelihood	511.716		487.559		486.337		486.924		485.433	
Chi-square	72.669***		94.790***		95.955***		96.747***		97.649***	
Degree of freedom	9		16		19		18		21	
Incremental Chi-square	52.686***		0.647		0.648		0.836		0.891	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=313; Exits=51

Appendix 20. Survival analysis results for ED using Brazil based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.140	0.307	0.104	0.332	-0.015	0.337	0.233	0.368	0.062	0.361
Diversity	-0.040	0.031	-0.068ǂ	0.041	-0.075ǂ	0.045	-0.072	0.044	-0.082ǂ	0.048
Time1999	0.760	1.082	-0.391	1.411	-0.776	1.749	0.012	1.529	-0.694	1.765
Time2006	0.517	1.074	-0.363	1.339	-0.933	1.691	0.038	1.446	-0.860	1.700
Food	0.513	1.069	-0.113	1.127	-1.115	1.473	-0.109	1.147	-1.067	1.389
Paper	0.252	0.620	-0.071	0.654	-0.156	0.690	-0.284	0.672	-0.401	0.714
Chemical	1.305*	0.599	1.267*	0.630	1.236ǂ	0.660	1.337*	0.654	1.353ǂ	0.703
Machinery	0.283	0.543	-0.059	0.590	0.048	0.653	-0.249	0.598	0.132	0.652
Electronics	0.619	0.583	0.799	0.619	0.949	0.669	0.849	0.625	1.106	0.674
Main effects										
GDP			-0.005	0.003	-0.001*	0.006	-0.007	0.001	-0.001	0.001
FC			-0.428ǂ	0.976	0.045	0.064	-0.153	0.847	1.580	0.245
HC experience			0.004	0.015	0.626	0.662	0.010	0.016	0.610	0.687
R&D			-0.879	0.653	-1.352	0.577	-0.829	0.960	-0.008	0.681
ROE			0.002	0.011	0.968*	0.482	0.003	0.012	1.158*	0.494
Acquisition			0.415	0.489	0.790	0.562	-0.974	0.903	-0.049	0.956
JV			0.115	0.417	0.191	0.453	0.794	0.612	0.745*	0.831
Interaction effects										
GDP×HC experience					0.285	0.303			0.228	0.954
GDP×R&D					0.452	0.106			0.970	0.418
GDP×ROE					0.743	0.480			0.002	0.001
GDP×Acquisition							0.001	0.001	-0.004	0.001
GDP×JV							0.137	0.005	-0.001	0.008
FC×HC experience					-0.377	0.374			-0.396	0.391
FC×R&D					0.478	0.003			0.585	0.384
FC×ROE					-0.600*	0.280			-0.719*	0.286
FC×Acquisition							0.088	0.818	0.619	0.506
FC×JV							0.058	0.423	0.632*	0.863
2- Log likelihood	274.234		264.777		255.790		26.542		248.396	
Chi-square	5.998		12.102		23.823		14.939		31.272	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	6.372		15.828		24.816		20.063		32.209	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=117; Exits=32

Appendix 21. Survival analysis results for ED using China based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.075	0.194	0.261	0.216	0.369	0.226	0.264	0.217	0.351	0.227
Diversity	0.007	0.017	0.024	0.019	0.026	0.021	0.027	0.019	0.024	0.022
Time1999	1.018	0.742	-0.406	0.922	-0.441	0.916	-0.178	0.958	-0.440	0.964
Time2006	1.102	0.740	-0.058	0.846	-0.478	0.861	0.194	0.883	-0.435	0.916
Food	-0.390	0.609	-0.408	0.614	-0.855	0.715	-0.378	0.616	-0.899	0.736
Paper	-0.045	0.497	-0.086	0.509	-0.397	0.563	-0.016	0.517	-0.325	0.572
Chemical	0.117	0.434	-0.282	0.450	-0.241	0.463	-0.337	0.450	-0.166	0.463
Machinery	-1.252*	0.536	-1.173*	0.542	-1.304*	0.545	-1.098*	0.546	-1.292*	0.553
Electronics	0.318	0.327	0.391	0.339	0.332	0.356	0.447	0.343	0.368	0.359
Main effects										
GDP			-0.002	0.002	0.042	0.002	0.530	0.003	0.001	0.003
FC			-0.625**	1.964	0.507*	3.106	-0.067	0.492	0.678ǂ	0.153
HC experience			-0.094ǂ	0.052	1.492	1.368	-0.090ǂ	0.053	1.402	1.453
R&D			-0.265*	0.528	0.198	0.677	-0.329*	0.551	0.907	0.487
ROE			-0.009	0.006	1.103***	0.233	-0.009	0.006	1.035***	0.254
Acquisition			-0.435	0.351	-0.377	0.374	0.653	0.554	0.560	0.061
JV			0.122	0.288	0.078	0.309	0.091	0.208	-1.118	0.439
Interaction effects										
GDP×HC experience					-0.606	0.174			-0.500	0.321
GDP×R&D					-0.986**	0.152			-0.655ǂ	0.577
GDP×ROE					-0.334***	0.217			-0.002**	1.018
GDP×Acquisition							-0.001	0.005	0.041	0.006
GDP×JV							-0.005	0.004	-0.001	0.004
FC×HC experience					-0.839	0.695			-0.771	0.744
FC×R&D					-0.998	0.935			-0.392	0.802
FC×ROE					-0.548***	0.115			-0.517***	0.125
FC×Acquisition							-1.931	0.851	-0.489	0.684
FC×JV							-0.908	0.104	0.935	0.765
2- Log likelihood	686.668		658.753		627.320		656.477		625.565	
Chi-square	13.318		41.083***		72.992***		43.980**		76.356***	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	15.717ǂ		43.633***		75.065***		45.908***		76.821***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=402; Exits=62

Appendix 22. Survival analysis results for ED using India based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.039	0.269	0.184	0.361	0.112	0.369	0.185	0.383	0.190	0.396
Diversity	-0.017	0.021	-0.018	0.026	-0.014	0.027	-0.021	0.029	-0.023	0.030
Time1999	1.056	0.760	0.821	1.256	1.101	1.373	0.748	1.296	1.167	1.468
Time2006	-1.116	1.235	-1.452	1.382	-1.661	1.550	-1.907	1.490	-0.061	1.585
Food	-1.012	1.048	-0.295	1.110	-0.343	1.116	-0.321	1.111	-0.421	1.116
Paper	0.315	1.056	-0.743	1.090	-0.554	1.127	-0.724	1.111	-0.469	1.188
Chemical	-0.353	0.764	-0.559	0.800	-0.697	0.817	-1.340	1.122	-1.668	1.202
Machinery	0.174	0.543	0.534	0.662	0.526	0.725	0.389	0.704	0.249	0.787
Electronics	0.889ǂ	0.468	1.524*	0.602	1.485*	0.630	1.522*	0.630	1.578*	0.655
Main effects										
GDP			-0.003	0.004	-0.002	0.006	-0.001	0.007	-0.001	0.009
FC			-0.753*	0.403	0.483	0.926	-0.944*	0.924	-0.206	0.439
HC experience			-0.012	0.022	-0.234	1.580	-0.016	0.023	-0.103	0.168
R&D			-0.238	0.296	-0.158	0.123	-0.932ǂ	0.403	-0.003	0.354
ROE			0.045*	0.019	1.375	1.252	0.039*	0.020	0.710	1.878
Acquisition			0.997*	0.430	1.116*	0.437	-0.384	0.044	0.217	0.793
JV			0.463	0.501	0.422	0.504	-0.581	0.228	-0.497	0.417
Interaction effects										
GDP×HC experience					0.632	0.960			0.895	0.190
GDP×R&D					-1.210	0.287			-0.721	0.241
GDP×ROE					-1.306	0.286			-0.608	0.707
GDP×Acquisition							0.024	0.005	0.006	0.007
GDP×JV							0.008	0.006	0.001ǂ	0.007
FC×HC experience					0.078	0.857			1.063	1.171
FC×R&D					0.910	0.839			0.795	0.308
FC×ROE					-0.718	0.657			-1.421	1.001
FC×Acquisition							0.710	0.659	-1.744	0.171
FC×JV							0.037	0.374	0.419	0.152
2- Log likelihood	259.176		230.857		228.476		227.871		224.077	
Chi-square	12.567		36.978**		41.310**		38.153**		42.372*	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	14.445		42.764***		45.145**		45.749***		49.544**	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=148; Exits=29

Appendix 23. Survival analysis results for ED using Russia based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.292	0.194	0.208	0.260	0.110	0.272	0.191	0.263	0.091	0.269
Diversity	0.018	0.015	-0.043*	0.022	-0.047ǂ	0.025	-0.042*	0.022	-0.048*	0.024
Time1999	1.107	0.728	1.278	0.887	1.465	1.077	1.365	0.980	1.335	1.166
Time2006	0.144	0.766	0.127	0.799	0.240	0.971	0.280	0.851	0.321	1.050
Food	1.114***	0.295	0.656ǂ	0.362	0.425	0.410	0.633ǂ	0.378	0.426	0.419
Paper	-0.380	0.630	-0.347	0.638	-0.558	0.664	-0.271	0.644	-0.426	0.673
Chemical	0.851ǂ	0.446	0.953*	0.460	0.938*	0.469	0.951*	0.476	0.863ǂ	0.498
Machinery	-0.183	0.958	-0.480	0.525	-0.341	0.259	-0.589	0.245	-0.303	0.745
Electronics	-0.361	0.483	-0.407	0.484	-0.328	0.511	-0.446	0.494	-0.574	0.544
Main effects										
GDP			0.001	0.002	0.001	0.003	0.002	0.004	0.001	0.004
FC			-0.845*	3.233	-0.224	0.543	-0.026	0.496	-0.372	0.490
HC experience			0.007	0.037	1.602	1.628	0.007	0.037	1.789	1.766
R&D			-0.291*	0.867	-0.198	0.684	-0.173*	0.919	-0.465ǂ	0.009
ROE			0.042***	0.010	-0.014	0.472	0.043***	0.011	0.021	0.514
Acquisition			-0.039	0.316	0.001	0.327	-0.958	9.973	-0.388ǂ	0.159
JV			0.240	0.305	0.328	0.318	0.174	0.124	-1.554	0.041
Interaction effects										
GDP×HC experience					-0.455	0.334			-0.984	0.636
GDP×R&D					-0.868*	0.491			-0.979*	0.557
GDP×ROE					0.575	0.250			0.566	0.340
GDP×Acquisition							-0.001	0.004	0.849	0.004
GDP×JV							-0.005	0.004	0.131	0.004
FC×HC experience					-0.775	0.900			-0.883	0.977
FC×R&D					0.093	0.782			0.950	0.961
FC×ROE					0.016	0.278			0.002	0.301
FC×Acquisition							0.485	0.543	0.149ǂ	0.207
FC×JV							-1.607	0.599	0.957	0.164
2- Log likelihood	655.258		631.288		620.142		629.572		616.340	
Chi-square	52.555***		80.509***		103.123***		85.589***		107.485***	
Degree of freedom	9		16		22		20		26	
Incremental Chi-square	51.600***		75.569***		86.716***		77.285***		90.518***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=239; Exits=67

Appendix 24. Survival analysis results for ID using Brazil based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.140	0.307	0.156	0.354	0.164	0.359	0.212	0.381	0.195	0.399
Diversity	-0.040	0.031	-0.057	0.039	-0.050	0.038	-0.045	0.039	-0.045	0.040
Time1999	0.760	1.082	1.090	1.116	1.346	1.159	1.079	1.134	1.947	1.296
Time2006	0.517	1.074	0.906	1.105	1.146	1.155	0.925	1.111	1.792	1.271
Food	0.513	1.069	0.064	1.160	-0.039	1.169	0.388	1.181	0.073	1.220
Paper	0.252	0.620	0.081	0.683	0.117	0.682	0.031	0.678	0.178	0.692
Chemical	1.305*	0.599	1.250ǂ	0.652	1.267ǂ	0.668	1.305*	0.657	1.560*	0.690
Machinery	0.283	0.543	0.070	0.592	0.154	0.622	-0.099	0.580	-0.070	0.613
Electronics	0.619	0.583	0.816	0.624	0.962	0.648	0.705	0.611	0.930	0.644
Main effects										
ID			-35.633	52.373	-27.279	53.767	-37.094	55.415	-31.883	57.655
ID Square			10.938	16.708	9.729	17.039	9.899	17.923	10.633	18.555
HC experience			0.001	0.015	0.142	0.149	0.010	0.016	0.135	0.147
R&D			-0.439	0.783	-0.698	0.959	-0.940ǂ	0.856	-0.649ǂ	0.090
ROE			0.003	0.010	0.388ǂ	0.235	0.002	0.010	0.687*	0.276
Acquisition			0.207	0.506	0.299	0.523	-12.840ǂ	6.615	-14.911*	7.298
JV			0.128	0.419	0.076	0.447	6.640	4.405	12.436*	5.204
Interaction effects										
ID×HC experience					-0.098	0.099			-0.089	0.098
ID×R&D					0.818	0.208			0.069ǂ	0.218
ID×ROE					-0.261	0.159			-0.465*	0.187
ID×Acquisition							8.680ǂ	4.493	10.155*	4.961
ID×JV							-4.302	2.943	-8.189*	3.477
2- Log likelihood	274.234		267.791		263.991		259.783		251.759	
Chi-square	5.998		8.849		15.126		14.169		23.479	
Degree of freedom	9		16		19		18		21	
Incremental Chi-square	6.372		0.433		0.329		0.306		0.329	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=117; Exits=32

Appendix 25. Survival analysis results for ID using China based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.075	0.194	0.281	0.230	0.306	0.238	0.270	0.228	0.308	0.236
Diversity	0.007	0.017	0.026	0.020	0.024	0.020	0.028	0.020	0.023	0.020
Time1999	1.018	0.742	0.629	0.797	0.662	0.804	0.703	0.800	0.745	0.809
Time2006	1.102	0.740	0.700	0.767	0.702	0.777	0.827	0.775	0.816	0.785
Food	-0.390	0.609	0.352	0.690	0.247	0.695	0.367	0.694	0.249	0.700
Paper	-0.045	0.497	-0.231	0.507	-0.127	0.507	-0.153	0.510	-0.038	0.509
Chemical	0.117	0.434	-0.098	0.444	-0.100	0.449	-0.117	0.446	-0.126	0.451
Machinery	-1.252*	0.536	-1.385**	0.539	-1.293*	0.539	-1.332*	0.540	-1.238*	0.540
Electronics	0.318	0.327	0.169	0.337	0.221	0.353	0.209	0.337	0.230	0.350
Main effects										
ID			-380.608*	175.572	-321.929ǂ	177.832	-382.588*	178.750	-305.775ǂ	181.198
ID Square			115.888*	53.699	98.864ǂ	54.314	116.558*	54.719	94.020ǂ	55.386
HC experience			-0.093ǂ	0.052	0.683	0.679	-0.092ǂ	0.052	0.562	0.685
R&D			-0.560**	0.634	-0.216	0.225	-0.505**	0.626	0.058	0.378
ROE			-0.011*	0.006	0.240ǂ	0.138	-0.013*	0.006	0.252ǂ	0.136
Acquisition			-0.263	0.345	-0.314	0.356	6.110	4.519	7.191	4.798
JV			-0.026	0.292	-0.049	0.293	-1.515	3.745	-2.293	3.805
Interaction effects										
ID×HC experience					-0.484	0.423			-0.410	0.426
ID×R&D					-0.612	0.397			-0.643	0.502
ID×ROE					-0.144ǂ	0.080			-0.152ǂ	0.079
ID×Acquisition							-3.897	2.777	-4.618	2.965
ID×JV							0.918	2.272	1.382	2.312
2- Log likelihood	686.668		658.719		654.438		656.660		651.843	
Chi-square	13.318		33.917**		44.840***		35.963**		47.160***	
Degree of freedom	9		16		19		18		21	
Incremental Chi-square	15.717		5.387*		3.731ǂ		5.274*		3.212ǂ	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=402; Exits=62

Appendix 26. Survival analysis results for ID using India based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.039	0.269	0.075	0.375	0.032	0.388	0.095	0.398	0.055	0.415
Diversity	-0.017	0.021	-0.015	0.027	-0.017	0.028	-0.015	0.029	-0.018	0.030
Time1999	1.056	0.760	2.226*	0.896	2.262*	0.987	2.306*	0.927	2.305*	1.033
Time2006	-1.116	1.235	-0.911	1.303	-1.049	1.372	-0.962	1.324	-1.025	1.344
Food	-1.012	1.048	-0.019	1.134	0.021	1.144	-0.077	1.153	-0.044	1.171
Paper	0.315	1.056	-0.921	1.098	-0.951	1.121	-0.861	1.120	-0.920	1.137
Chemical	-0.353	0.764	-0.906	0.815	-1.017	0.830	-0.976	0.866	-1.107	0.913
Machinery	0.174	0.543	0.529	0.664	0.549	0.704	0.540	0.670	0.569	0.710
Electronics	0.889ǂ	0.468	1.427*	0.606	1.523*	0.629	1.361*	0.636	1.446*	0.657
Main effects										
ID			67.544	60.189	92.002	73.865	54.908	65.587	83.315	76.864
ID Square			-25.138	20.690	-32.594	25.370	-21.523	21.973	-30.230	26.012
HC experience			-0.021	0.022	0.905	0.929	-0.022	0.023	0.960	0.973
R&D			-0.073	0.150	0.101	0.336	-0.276ǂ	0.199	0.055	0.332
ROE			0.056**	0.021	0.118	0.387	0.054*	0.021	0.097	0.439
Acquisition			0.740ǂ	0.438	0.758ǂ	0.456	-1.667	6.932	-0.762	7.771
JV			0.288	0.509	0.297	0.510	-3.183	8.972	-2.838	8.689
Interaction effects										
ID×HC experience					-0.596	0.598			-0.633	0.627
ID×R&D					-0.702	0.835			-0.001	0.833
ID×ROE					-0.041	0.244			-0.028	0.277
ID×Acquisition							1.579	4.594	0.986	5.133
ID×JV							2.243	5.825	2.038	5.661
2- Log likelihood	259.176		228.628		227.386		228.414		227.241	
Chi-square	12.567		35.321**		35.446*		36.174**		36.200*	
Degree of freedom	9		16		19		18		21	
Incremental Chi-square	14.445		1.483		1.799		0.973		1.453	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=148; Exits=29

Appendix 27. Survival analysis results for ID using Russia based sample

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.292	0.194	0.095	0.241	0.037	0.249	0.088	0.246	0.028	0.253
Diversity	0.018	0.015	-0.035	0.022	-0.021	0.024	-0.036	0.023	-0.020	0.024
Time1999	1.107	0.728	1.070	0.769	0.963	0.776	1.092	0.770	0.978	0.778
Time2006	0.144	0.766	0.046	0.770	-0.104	0.781	0.021	0.774	-0.175	0.789
Food	1.114***	0.295	0.603ǂ	0.362	0.721ǂ	0.377	0.578	0.367	0.716ǂ	0.381
Paper	-0.380	0.630	-0.317	0.639	-0.140	0.651	-0.347	0.641	-0.171	0.650
Chemical	0.851ǂ	0.446	0.924*	0.460	0.971*	0.463	0.919*	0.460	0.963*	0.464
Machinery	-12.183	238.958	-12.459	296.238	-12.535	288.813	-12.529	300.622	-12.616	290.375
Electronics	-0.361	0.483	-0.446	0.490	-0.608	0.504	-0.515	0.500	-0.730	0.521
Main effects										
ID			78.778	48.193	56.387	49.287	78.933	48.712	54.610	49.819
ID Square			-22.646	13.977	-16.695	14.239	-22.559	14.065	-16.033	14.333
HC experience			0.010	0.037	0.176	0.459	0.012	0.037	0.200	0.479
R&D			-0.519ǂ	0.820	0.001	0.001	-0.341ǂ	0.812	-0.840	0.758
ROE			0.043***	0.011	-0.105	0.106	0.042***	0.012	-0.124	0.109
Acquisition			0.068	0.310	0.110	0.313	-1.940	3.457	-2.484	3.596
JV			0.212	0.303	0.159	0.307	3.081	4.259	4.385	4.211
Interaction effects										
ID×HC experience					-0.090	0.252			-0.103	0.262
ID×R&D					0.406	0.418			0.603	0.558
ID×ROE					0.091	0.065			0.103	0.066
ID×Acquisition							1.132	1.950	1.466	2.031
ID×JV							-1.597	2.359	-2.369	2.344
2- Log likelihood	655.258		633.978		631.537		633.357		630.272	
Chi-square	52.555***		78.818***		79.328***		79.607***		80.249***	
Degree of freedom	9		16		19		18		21	
Incremental Chi-square	51.600***		2.630		1.389		2.577		1.263	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=239; Exits=67

Appendix 28a. Survival analysis results for ED and establishment mode (Greenfield)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.125	0.139	0.293*	0.150	0.478**	0.162	0.309*	0.149	0.483**	0.160
Diversity	-0.004	0.013	-0.003	0.013	-0.004	0.014	-0.002	0.013	-0.003	0.014
Time1999	0.646	0.472	0.137	0.591	0.211	0.618	0.226	0.590	0.300	0.618
Time2006	0.376	0.487	0.108	0.542	0.077	0.565	0.181	0.539	0.155	0.563
Food	0.145	0.370	0.056	0.376	-0.162	0.397	0.069	0.377	-0.142	0.401
Paper	0.122	0.393	-0.085	0.401	-0.134	0.409	-0.048	0.403	-0.092	0.410
Chemical	0.050	0.371	-0.216	0.376	-0.220	0.377	-0.194	0.376	-0.190	0.376
Machinery	-0.303	0.328	-0.186	0.331	-0.338	0.338	-0.162	0.333	-0.284	0.338
Electronics	0.581*	0.250	0.592*	0.251	0.610*	0.255	0.602*	0.252	0.615*	0.255
Main effects										
GDP			-0.001	0.001	-0.001	0.002	-0.166	0.001	-0.003	0.002
FC			-0.656**	1.183	0.326	1.701	-0.433	1.739	0.139	0.081
HC experience			-0.015	0.016	1.322**	0.503	-0.015	0.016	1.320**	0.496
R&D			-0.117**	0.119	0.754	0.443	-0.094**	0.124	0.343	0.459
ROE			-0.012	0.007	-0.368**	0.128	-0.012	0.007	-0.351**	0.128
JV			0.515**	0.201	0.503*	0.206	0.191	0.088	0.728	0.149
Interaction effects										
GDP×HC experience					0.648	0.603			-1.172	0.541
GDP×R&D					-0.534***	0.424			-0.598***	0.455
GDP×ROE					-0.004	0.189			-0.124	0.531
GDP×JV							-0.002	0.002	-0.003	0.002
FC×HC experience					-0.781	0.301			-0.775**	0.296
FC×R&D					-0.002	0.383			-0.024	1.389
FC×ROE					-0.198**	0.066			-0.193**	0.066
FC×JV							-0.206	0.277	-1.777	0.287
2- Log likelihood	1305.221		1265.903		1229.828		1263.769		1227.268	
Chi-square	14.045		47.889***		80.456***		55.761***		88.899***	
Degree of freedom	9		15		21		17		23	
Incremental Chi-square	13.357		52.675***		88.749***		54.808***		91.310***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=604; Exits=108

Appendix 28b. Survival analysis results for ED and establishment mode (Acquisition)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.525**	0.197	-0.492*	0.208	-0.505*	0.212	-0.500*	0.209	-0.525*	0.213
Diversity	0.013	0.015	0.011	0.019	-0.007	0.020	0.011	0.019	-0.006	0.020
Time1999	1.943**	0.726	1.389ǂ	0.828	1.158	0.844	1.300	0.830	1.157	0.850
Time2006	1.078	0.748	0.699	0.795	0.334	0.820	0.636	0.796	0.361	0.825
Food	0.812**	0.282	0.550ǂ	0.315	0.285	0.339	0.593ǂ	0.316	0.309	0.337
Paper	-0.446	0.494	-0.556	0.501	-0.618	0.506	-0.558	0.500	-0.624	0.506
Chemical	0.893**	0.339	0.780*	0.353	0.806*	0.356	0.821*	0.354	0.822*	0.355
Machinery	-1.181ǂ	0.612	-1.082ǂ	0.616	-1.132ǂ	0.624	-1.074ǂ	0.617	-1.100ǂ	0.624
Electronics	-0.490	0.433	-0.361	0.445	-0.633	0.497	-0.307	0.453	-0.601	0.499
Main effects										
GDP			-0.002	0.001	-0.003	0.002	-0.005ǂ	0.002	-0.006ǂ	0.004
FC			-0.007	1.603	0.965	0.030	-1.398	0.472	1.426	0.844
HC experience			-0.009	0.014	0.301	0.371	-0.008	0.015	0.267	0.378
R&D			-1.322	0.521	-0.005	0.087	-1.461	0.607	-1.658	0.043
ROE			-0.007	0.008	-0.304*	0.127	-0.005	0.008	-0.294*	0.133
JV			0.011	0.257	0.010	0.266	0.415	0.555	0.535	0.973
Interaction effects										
GDP×HC experience					-0.982	0.077			0.338	0.205
GDP×R&D					-0.990	0.143			-1.031	0.212
GDP×ROE					0.591	0.532			0.808	0.065
GDP×JV							0.004	0.003	0.004	0.003
FC×HC experience					-0.161	0.201			-0.159	0.205
FC×R&D					0.696	0.692			0.001	0.001
FC×ROE					-0.179**	0.060			-0.176**	0.062
FC×JV							-1.007	0.108	-1.053	0.319
2- Log likelihood	830.069		824.332		808.551		821.805		806.517	
Chi-square	65.270***		71.178***		95.994***		72.736***		97.096***	
Degree of freedom	9		15		21		17		23	
Incremental Chi-square	63.386***		69.123***		84.904***		71.650***		96.938***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=302; Exits=83

Appendix 29a. Survival analysis results for ED and ownership mode (WOS)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.097	0.158	-0.016	0.180	0.132	0.187	-0.005	0.182	0.143	0.188
Diversity	-0.011	0.016	-0.026	0.019	-0.022	0.018	-0.025	0.019	-0.023	0.019
Time1999	0.863*	0.439	0.355	0.563	0.261	0.583	0.322	0.560	0.216	0.580
Time2006	0.305	0.455	-0.148	0.513	-0.295	0.540	-0.187	0.510	-0.358	0.536
Food	0.110	0.380	0.040	0.386	0.043	0.388	0.025	0.387	0.035	0.390
Paper	-0.113	0.488	-0.300	0.499	-0.330	0.507	-0.346	0.502	-0.380	0.511
Chemical	0.501	0.366	0.317	0.381	0.353	0.382	0.347	0.381	0.356	0.382
Machinery	-0.369	0.348	-0.409	0.355	-0.513	0.370	-0.389	0.356	-0.483	0.372
Electronics	0.249	0.328	0.266	0.334	0.216	0.348	0.297	0.336	0.214	0.349
Main effects										
GDP			-0.002	0.001	-0.001	0.002	-0.611	0.001	-0.830	0.002
FC			-0.454ǂ	1.460	1.890	1.884	-0.445	1.773	-0.288	0.126
HC experience			0.011	0.014	0.831*	0.376	0.011	0.014	0.735ǂ	0.385
R&D			-0.283*	1.455	0.148	1.999	-0.329*	0.473	0.870	0.065
ROE			-0.005	0.007	-0.344*	0.157	-0.004	0.007	-0.363*	0.158
Acquisition			0.439ǂ	0.257	0.419	0.260	0.759	0.267	0.234	0.547
Interaction effects										
GDP×HC experience					-0.613	0.046			-0.002	0.146
GDP×R&D					-0.237***	0.898			-0.166***	0.024
GDP×ROE					-0.008	0.636			-0.052	0.009
GDP×Acquisition							-0.005ǂ	0.002	-0.003	0.003
FC×HC experience					-0.439*	0.212			-0.393ǂ	0.217
FC×R&D					-0.002*	1.237			-0.618*	0.282
FC×ROE					-0.181*	0.080			-0.193*	0.080
FC×Acquisition							-0.421	2.961	-1.537	0.102
2- Log likelihood	965.123		939.267		909.797		935.958		908.028	
Chi-square	12.659		33.905**		59.620***		39.934***		64.822***	
Degree of freedom	9		15		21		17		23	
Incremental Chi-square	12.84		38.696***		68.166***		42.005***		69.935***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=502; Exits=82

Appendix 29b. Survival analysis results for ED and ownership mode (JV)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.048	0.163	0.203	0.171	0.234	0.171	0.208	0.169	0.239	0.170
Diversity	0.002	0.013	-0.007	0.014	-0.017	0.015	-0.006	0.014	-0.016	0.015
Time1999	1.932ǂ	1.012	1.403	1.109	1.504	1.165	1.453	1.104	1.567	1.165
Time2006	1.576	1.024	1.335	1.070	1.305	1.116	1.387	1.068	1.373	1.119
Food	1.212***	0.260	0.606*	0.299	0.396	0.334	0.667*	0.307	0.446	0.341
Paper	0.093	0.398	-0.126	0.404	-0.356	0.435	-0.092	0.408	-0.329	0.438
Chemical	0.457	0.330	0.272	0.335	0.262	0.340	0.280	0.335	0.261	0.340
Machinery	-0.937ǂ	0.530	-0.726	0.535	-0.803	0.536	-0.742	0.536	-0.811	0.536
Electronics	0.247	0.290	0.404	0.292	0.379	0.295	0.373	0.296	0.351	0.300
Main effects										
GDP			-0.001	0.001	-0.004*	0.002	-0.002	0.002	-0.005*	0.002
FC			-0.623**	1.251	-1.406	1.752	-0.099**	1.536	-1.943	0.004
HC experience			-0.031ǂ	0.019	-0.137	0.554	-0.033ǂ	0.020	-0.135	0.554
R&D			-0.390*	0.151	0.001	0.002	-0.379*	0.154	0.517	0.299
ROE			-0.017**	0.006	-0.146	0.118	-0.017**	0.006	-0.134	0.120
Acquisition			-0.029	0.223	-0.013	0.227	-0.253	0.324	-0.683	0.595
Interaction effects										
GDP×HC experience					0.004	0.690			0.080	0.723
GDP×R&D					0.375	0.101			0.039	0.854
GDP×ROE					0.001	0.849			0.001	0.887
GDP×Acquisition							0.001	0.002	0.001	0.002
FC×HC experience					0.052	0.317			0.057	0.317
FC×R&D					-1.346	0.252			-1.155	0.277
FC×ROE					-0.096ǂ	0.056			-0.091	0.057
FC×Acquisition							1.535	0.365	1.233	0.465
2- Log likelihood	1195.038		1158.926		1145.210		1158.145		1144.703	
Chi-square	44.314***		80.999***		120.990***		81.117***		121.035***	
Degree of freedom	9		15		21		17		23	
Incremental Chi-square	41.461***		77.573***		91.289***		78.355***		91.797***	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=404; Exits=109

Appendix 30a. Survival analysis results for ID and establishment mode (Greenfield)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.125	0.139	0.296ǂ	0.154	0.378*	0.161	0.304*	0.154	0.384*	0.160
Diversity	-0.004	0.013	-0.003	0.014	-0.003	0.014	-0.002	0.014	-0.003	0.014
Time1999	0.646	0.472	0.663	0.482	0.543	0.484	0.649	0.482	0.528	0.484
Time2006	0.376	0.487	0.477	0.499	0.405	0.501	0.458	0.500	0.386	0.502
Food	0.145	0.370	0.249	0.373	0.248	0.376	0.259	0.373	0.257	0.377
Paper	0.122	0.393	-0.098	0.399	0.038	0.403	-0.090	0.399	0.043	0.403
Chemical	0.050	0.371	-0.318	0.382	-0.286	0.380	-0.317	0.381	-0.287	0.379
Machinery	-0.303	0.328	-0.334	0.332	-0.356	0.334	-0.342	0.332	-0.368	0.336
Electronics	0.581*	0.250	0.616*	0.251	0.598*	0.252	0.608*	0.251	0.588*	0.253
Main effects										
ID			-39.196**	13.130	-34.111*	13.655	-40.367**	13.347	-35.341*	13.878
ID Sq			11.629**	3.993	10.405*	4.114	11.890**	4.034	10.683**	4.157
HC experience			-0.011	0.016	0.378*	0.169	-0.011	0.016	0.374*	0.169
R&D			-3.695***	750.247	8.958	1.259	-3.693***	1.129	9.517	1.261
ROE			0.011	0.007	0.007	0.078	0.012	0.008	0.007	0.078
JV			0.440*	0.203	0.438*	0.203	-0.592	2.009	-0.590	2.019
Interaction effects										
ID×HC experience					-0.249*	0.111			-0.247*	0.112
ID×R&D					-8.107	7.950			-8.459	7.967
ID×ROE					0.002	0.048			0.003	0.048
ID×JV							0.628	1.216	0.626	1.223
2- Log likelihood	1305.221		1267.139		1260.568		1266.874		1260.308	
Chi-square	14.045		43.706***		48.086***		43.864***		48.182***	
Degree of freedom	9		15		18		16		19	
Incremental Chi-square	13.357		7.580**		5.762*		7.792**		5.965*	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=604; Exits=108

Appendix 30b. Survival analysis results for ID and establishment mode (Acquisition)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.525**	0.197	-0.441*	0.207	-0.489*	0.211	-0.469*	0.212	-0.513*	0.215
Diversity	0.013	0.015	0.012	0.019	-0.001	0.020	0.015	0.019	0.002	0.020
Time1999	1.943**	0.726	1.933**	0.731	2.085**	0.737	1.924**	0.730	2.078**	0.738
Time2006	1.078	0.748	1.091	0.751	1.073	0.755	1.043	0.751	1.061	0.755
Food	0.812**	0.282	0.648*	0.322	0.354	0.340	0.751*	0.329	0.421	0.347
Paper	-0.446	0.494	-0.497	0.500	-0.648	0.506	-0.493	0.500	-0.638	0.505
Chemical	0.893**	0.339	0.801*	0.355	0.812*	0.354	0.875*	0.356	0.852*	0.355
Machinery	-1.181ǂ	0.612	-1.150ǂ	0.614	-1.182ǂ	0.615	-1.058ǂ	0.619	-1.117ǂ	0.619
Electronics	-0.490	0.433	-0.427	0.444	-0.620	0.472	-0.331	0.450	-0.561	0.476
Main effects										
ID			-4.057	14.889	-14.034	16.272	-4.475	14.899	-14.626	16.353
ID Sq			1.162	4.557	4.915	4.998	1.604	4.559	5.293	5.028
HC experience			-0.009	0.015	-0.004	0.141	-0.006	0.014	0.015	0.144
R&D			-1.901	1.583	-1.014	1.542	-2.128	1.643	-0.001	0.001
ROE			0.006	0.008	0.252***	0.066	0.004	0.008	0.242***	0.067
JV			0.029	0.261	0.092	0.266	3.061	2.317	2.216	2.349
Interaction effects										
ID×HC experience					-0.003	0.090			-0.014	0.091
ID×R&D					5.244	9.135			6.053	9.387
ID×ROE					-0.153***	0.040			-0.148***	0.040
ID×JV							-1.849	1.401	-1.286	1.411
2- Log likelihood	830.069		826.726		814.982		824.991		814.153	
Chi-square	65.270***		67.857***		85.091***		69.124***		85.804***	
Degree of freedom	9		15		18		16		19	
Incremental Chi-square	63.386***		0.064		0.939		0.122		1.076	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=302; Exits=83

Appendix 31a. Survival analysis results for ID and ownership mode (WOS)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	-0.097	0.158	0.048	0.177	0.061	0.182	0.049	0.179	0.064	0.184
Diversity	-0.011	0.016	-0.026	0.019	-0.025	0.018	-0.024	0.019	-0.022	0.018
Time1999	0.863*	0.439	1.012*	0.442	0.961*	0.445	0.987*	0.443	0.919*	0.447
Time2006	0.305	0.455	0.258	0.459	0.225	0.459	0.229	0.460	0.196	0.460
Food	0.110	0.380	0.057	0.382	0.001	0.383	0.079	0.383	0.016	0.383
Paper	-0.113	0.488	-0.238	0.493	-0.176	0.497	-0.241	0.493	-0.183	0.496
Chemical	0.501	0.366	0.257	0.381	0.264	0.382	0.275	0.380	0.290	0.381
Machinery	-0.369	0.348	-0.403	0.357	-0.396	0.361	-0.418	0.359	-0.416	0.363
Electronics	0.249	0.328	0.276	0.337	0.265	0.337	0.275	0.336	0.249	0.337
Main effects										
ID			-21.801	14.597	-16.046	15.385	-24.450	14.964	-18.774	15.761
ID Sq			6.563	4.447	5.359	4.646	7.205	4.531	0.188	0.127
HC experience			0.012	0.014	0.177	0.126	0.012	0.014	-4.023	1.458
R&D			-3.650*	1.471	-6.119	1.407	-3.649*	1.472	0.150ǂ	0.082
ROE			-0.006	0.007	0.155ǂ	0.083	-0.005	0.007	-1.752	2.409
Acquisition			0.426ǂ	0.259	0.409	0.261	-1.528	2.275	6.000	4.732
Interaction effects										
ID×HC experience					-0.109	0.083			-0.116	0.084
ID×R&D					-1.687	0.008			4.004	8.954
ID×ROE					-0.099*	0.050			-0.097ǂ	0.050
ID×Acquisition							1.171	1.353	1.293	1.431
2- Log likelihood	965.123		942.255		935.662		941.513		934.852	
Chi-square	12.659		30.948**		42.597***		32.023**		44.009***	
Degree of freedom	9		15		18		16		19	
Incremental Chi-square	12.840		2.080		1.272		2.417		1.536	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=502; Exits=82

Appendix 31b. Survival analysis results for ID and ownership mode (JV)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	B	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**	**B**	**SE**
Controls										
Sales	0.048	0.163	0.197	0.176	0.203	0.178	0.201	0.176	0.209	0.178
Diversity	0.002	0.013	-0.008	0.014	-0.009	0.014	-0.008	0.014	-0.009	0.015
Time1999	1.932ǂ	1.012	2.284*	1.032	2.309*	1.046	2.272*	1.033	2.290*	1.046
Time2006	1.576	1.024	2.042*	1.042	2.047ǂ	1.050	2.022ǂ	1.045	2.015ǂ	1.053
Food	1.212***	0.260	0.784**	0.303	0.742*	0.317	0.798**	0.309	0.757*	0.320
Paper	0.093	0.398	-0.118	0.402	-0.131	0.404	-0.112	0.403	-0.123	0.405
Chemical	0.457	0.330	0.303	0.336	0.303	0.339	0.310	0.338	0.311	0.340
Machinery	-0.937ǂ	0.530	-0.870	0.530	-0.874ǂ	0.532	-0.854	0.535	-0.855	0.536
Electronics	0.247	0.290	0.471	0.298	0.469	0.301	0.481	0.300	0.480	0.302
Main effects										
ID			-33.273*	13.179	-32.541*	13.634	-33.004*	13.228	-31.934*	13.782
ID Sq			9.857*	4.019	-0.006	0.204	9.820*	4.019	9.628*	4.189
HC experience			-0.030	0.020	1.181	1.139	-0.029	0.020	-0.013	0.205
R&D			-3.075**	1.175	0.044	0.086	-3.089**	1.181	2.229	1.187
ROE			0.019**	0.006	0.026	0.226	0.019**	0.006	0.043	0.086
Acquisition			0.024	0.225	9.744*	4.169	0.479	2.002	0.710	2.092
Interaction effects										
ID×HC experience					-0.014	0.124			-0.009	0.124
ID×R&D					-2.631	7.057			-3.296	7.371
ID×ROE					-0.016	0.055			-0.015	0.055
ID×Acquisition							-0.280	1.226	-0.422	1.283
2- Log likelihood	1195.038		1161.370		1161.114		1161.318		1161.006	
Chi-square	44.314***		71.421***		75.628***		72.037***		76.186***	
Degree of freedom	9		15		18		16		19	
Incremental Chi-square	41.161***		5.428*		4.974*		5.396*		4.823*	

*** p < 0.001; ** p < 0.01; * p < 0.05; ǂ p < 0.1 (all 2-tail tests); N=404; Exits=109

Appendix 32. Summary of findings for supplementary analyses

	Effect	**Sign**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
H1a	GDP	-	✓	.	.	.	✓	✓	×	✓	✓	×	×	×	×	×	×	×	×
H1b	FC	-	.	✓	.	.	✓	×	×	×	×	✓	✓	✓	✓	✓	×	✓	✓
H2	ID	∪	.	.	✓	✓	×	×	×	×	×	×	✓	×	×	✓	×	×	✓
H3a	GDP×HC experience	-	×	.	.	.	×	×	×	✓	×	×	×	×	×	×	×	×	×
H3b	FC×HC experience	-	.	✓	.	.	×	✓	×	✓	×	×	×	×	×	✓	×	✓	×
H3c	ID×HC experience	-	.	.	×	×	×	×	×	×	×	×	×	×	×	✓	×	×	×
H4a	GDP×R&D	-	✓	.	.	.	✓	×	×	×	✓	×	✓	×	✓	✓	×	✓	×
H4b	FC×R&D	-	.	×	.	.	×	×	×	×	×	×	×	×	×	×	×	✓	×
H4c	ID×R&D	-	.	.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
H5a	GDP×ROE	-	✓	.	.	.	×	✓	×	×	×	×	✓	×	×	×	×	×	×
H5b	FC×ROE	-	.	✓	.	.	✓	×	✓	×	×	✓	✓	×	×	✓	✓	✓	×
H5c	ID×ROE	-	.	.	×	×	✓	×	×	×	×	✓	✓	×	×	×	✓	✓	×
H6a	GDP×Acquisition	+	×	.	.	.	×	×	×	×	×	×	×	×	×	.	.	×	×
H6b	FC×Acquisition	+	.	×	.	.	×	×	×	×	✓	×	×	×	✓	.	.	×	×
H6c	ID×Acquisition	+	.	.	✓	×	×	×	×	×	×	✓	×	×	×	.	.	×	×
H7a	GDP×JV	+	×	.	.	.	×	×	×	✓	✓	×	×	✓	×	×	×	.	.
H7b	FC×JV	+	.	×	.	.	×	×	×	×	×	✓	×	×	×	×	×	.	.
H7c	ID×JV	+	.	.	×	×	×	×	×	✓	×	×	×	×	×	×	×	.	.

✓ Supported; × Not supported.

1. GDP; 2. FC; 3. Low ID; 4. High ID; 5. ED and ID in the same model; 6. Denmark; 7. Finland; 8. Norway; 9. Sweden; 10. Brazil; 11. China; 12. India; 13. Russia; 14. Greenfield; 15. Acquisition; 16. WOS; 17. JV