

***Internationalisation of New Zealand Civil Construction Firms  
Opportunities & Challenges in Asia***

***Swati Nagar***

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***Faculty of Business  
Department of International Business  
Primary Supervisor: Professor Peter Enderwick***

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### *Attestation of Authorship*

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

**Swati Nagar**



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## *Abstract*

The development experienced by China, India, Indonesia and Vietnam, amongst other emerging markets, has brought a rapid growth in the urban population. However, the speed of urbanisation poses an unprecedented infrastructure challenge for these economies. Considering these developments, the primary aim of governments in these markets is to aid the development of world-class infrastructure facilities. Given the scope of infrastructure development, these markets have increasingly opened the sector to both local and international private investors over the last seven years. This has created enormous opportunities for infrastructure suppliers and it is likely to increase the number of private investments (both local and international) in these markets. The benefits that these emerging markets offer especially in the area of Transport and Energy infrastructure, are likely to be of significance to the New Zealand civil construction sector, given the small size of the domestic market. Indeed, increasing New Zealand's international business activity is vital to raising New Zealand's economic growth rate. In light of the above, **the first objective of this research** is to analyse key resource and capability demands required for infrastructure projects in markets such as India, China, Vietnam and Indonesia. In examining this, it is also imperative to evaluate the competitive advantages that New Zealand civil construction firms could deploy to the target markets.

As a resource-based economy, international engagement plays a critical role in the growth and development of New Zealand. The liberalisation and deregulation of the target markets has seen a rise in the number of New Zealand firms keen to tap into opportunities in sectors including agribusiness, biotechnology, food and beverage over recent years. Nevertheless, New Zealand civil construction firms have not participated to anything like the same extent especially in the area of infrastructure development. Reasons for this limited interaction are unclear and not well documented in the literature on the international economic activities of New Zealand civil construction firms. Given the importance of international engagement New Zealand civil construction firms cannot afford to isolate themselves from the opportunities provided by the target markets. However, despite its importance, the internationalisation of the New Zealand civil construction firms remains under-researched. Recognising this gap, the **second objective of this study** is to examine the constraints faced by New Zealand civil construction firms in internationalising operations.

In order to address the two research objectives the study adopts a multiple case-study approach and presents an analysis of the main findings generated from 21 interviews conducted with 15 civil construction firms, one government agency, a ministry and one industry body. The aim is

to ensure that the data collected is sufficiently rich and detailed to help understand the workings of the New Zealand civil construction sector. The findings generated by within and cross-case analysis are deductively compared to five theoretical frameworks, namely – OLI Framework, Resource Based View (RBV), Mathews LLL Model, International Entrepreneurship and Uppsala Model. The intention is to uncover aspects that are identified by these and other relevant studies that analyse the internationalisation of small-medium enterprises (SMEs). The findings of this study suggest that factors such as firm size, resources and limited international experience constrain New Zealand civil construction firms when considering international operations.

While these findings support the existing literature on internationalisation of SMEs that states that factors such as firm size, resources and experiential knowledge especially affect the ability of SMEs to internationalise (Johanson & Vahlne, 1977; Barney, 1991; Oviatt & McDougall, 1994; Chetty & Hamilton, 1996; Mathews, 2002; Chetty & Campbell-Hunt, 2004), this study specifically contributes to the literature that examines constraints associated with the internationalisation of civil construction firms. Despite the growth in exports of civil construction services, literature on internationalisation of civil construction firms is limited (Moreira et.al, 2013). Previous research in the area suggests that the nature of civil construction projects means that the constraints faced by firms operating especially in an international setting are complex and differ across countries (Moreira et.al, 2013; Seymour, 1987; Quak, 1991). The findings of this study contribute to the existing literature as New Zealand civil construction firms state that given the variation in market and institutional factors, undertaking infrastructure projects in the target markets is particularly challenging and risk prone.

Although the study supports existing literature on internationalisation of civil construction firms, the research also adds to the literature by identifying factors specific to New Zealand civil construction firms and the New Zealand domestic market that play a critical role in constraining the internationalisation of New Zealand based civil construction firms. For example, firms in the New Zealand civil construction sector are found to have a strong domestic focus. One of the main reasons for this view is the steady availability of work in the domestic market. The rebuild of Christchurch in the aftermath of earthquakes, for example, has presented an unexpected source of work for New Zealand civil construction firms. A stable domestic market and consequent lack of international experience has made international opportunities less attractive for a number of firms in the civil construction sector.

Drawing on insights gained from existing literature and case evidence, the research proposes to design actions and identify key government, industry and firm policy implications that might substantially increase levels of international involvement by New Zealand civil construction firms. Finally, the study seeks to contribute to the general body of knowledge on the internationalisation of SMEs. Given that the study analyses the internationalisation of civil construction firms, the findings seek to deepen the understanding of the distinctive nature of SME service firms internationalisation by putting it in the context of firms in the New Zealand civil construction. The findings of this study can be extended to understand the internationalisation of other firms that provide services associated with infrastructure development such as design, project management, infrastructure management, construction equipment, and ICT firms, as these firms are likely to face similar issues such as networking, lack of market and institutional knowledge, availability of financial and human resources when considering operations in the target markets. Also, considering that market participation from a number of civil construction firms from the Europe and US has been limited in the target markets (Fernandez, 2013), the findings of this study can also be used to inform the internationalisation strategies of these firms. In addition to civil construction firms, the findings of this study can also be applied to other traditional service sectors (such as retail) that may face similar issues around resources, competition, institutional and market factors while considering operations in the target markets. Finally, the findings of this study can be extended to evaluate the importance of firm specific capabilities in more dynamic technologically driven service based firms (such as ICT).

## *Chapter 1 Introduction*

### *1.1 Research Context*

The construction industry is an important one for most economies generally contributing strongly to output, employment and GDP. More specifically, the construction sector in providing valued infrastructure is critical to economic growth. However, the problems that the sector faces in most countries including New Zealand, are its strong cyclical tendencies and, often, reliance on government funding. Internationalisation of construction firms offers one possible way of countering demand fluctuations and has been a feature of some of the industry's largest players for a considerable period of time (Enderwick, 1989; Linder, 1994). Indeed, construction services have played an important role in the global economy, with the sector contributing 13.5 percent of the world GDP in 2014 (Betts et.al, 2013; World Trade Organisation, 2013). Increasing internationalisation of construction firms especially in the last decade, is possibly one of the main reasons behind the sector's contribution to the global economy. Large public deficits, dropping demand for construction services and slow economic growth in most developed economies have seen a number of construction firms from these countries focus on emerging markets that offer promising prospects for growth and expansion (Betts et.al, 2013; Sankhe et.al, 2010).

Economic growth experienced by the emerging markets in the last two decades has resulted in rapid urbanisation. Considering this, it can be suggested that rising consumer income and resultant urbanisation are two factors that are likely to drive the demand for the development of infrastructure facilities across the BRIC (Brazil, Russia, India and China) and the N-11 countries (Bangladesh, Vietnam, Indonesia, Philippines, Korea, Pakistan, Egypt, Nigeria, Turkey, Iran and Mexico) over the next decade (Lawson & Dragusanu, 2008; Wilson, Brugi & Stacy, 2011). Although urbanisation is occurring globally, the enormous scale of the phenomenon in emerging markets makes it imperative to understand the implications and consequent opportunities particularly in the areas of civil construction (Lawson & Dragusanu, 2008). Infrastructure is both the cause and a consequence of economic growth making it a key aspect for the development of these markets. Physical infrastructure is essential for manufacturing, services, trade and even human capital, while rapid urbanisation increases demand for basic amenities such as electricity, transport, communications and housing (UNCTAD, 2008). Over the period 1990-2006 the value of global infrastructure Foreign Direct Investment (FDI) increased 31 fold to US\$199 billion and in the emerging markets it increased 29 fold to an estimated US\$76 billion (UNCTAD, 2008). However, as a result of growing

demand there is often a lack of capital and technical expertise in the area. Hence, in order to meet the consumer requirements and sustain development, governments within the BRIC and the N-11 economies have opened the sector to foreign direct investment. Amongst these economies, China and India\* (from the BRIC group) and Vietnam and Indonesia\* (from the N-11 group) have experienced the most rapid growth in urbanisation over the last decade (\*China, India, Vietnam and Indonesia are termed target markets in this study) (UNCTAD, 2008; Lawson & Dragusanu, 2008; O'Neill & Stupnytska, 2009).

In light of this, foreign construction firms are increasingly participating in the development of infrastructure facilities, especially in the target markets. Apart from capital, one of the other primary reasons for governments to open the sector is to attract specialist technical skills and know-how, which local businesses within these economies may not possess (Betts et.al, 2011; Betts et.al, 2013; Lawson & Dragusanu, 2008). These markets therefore are of considerable significance to New Zealand civil construction firms for two main reasons. The first is that New Zealand civil construction firms have an international reputation for their niche skills as well as technical expertise especially in the area of Transport and Energy infrastructure development. The second is that in a number of cases local firms in the target markets lack the necessary know-how and innovative capabilities critical for the successful completion of large and complex projects. Considering these points, the first research objective of this study is to analyse key resource and capability demands required for infrastructure projects in the target markets. In doing so, it is also important to evaluate the competitive advantages that New Zealand civil construction firms could deploy to the target markets.

Although the target markets do present significant opportunities, they also have their own set of challenges as they are quite dynamic and risky in nature. Moreover, government and business support frameworks in these countries are not always well defined making it difficult for international firms in particular, to conduct operations in these markets (UNCTAD, 2008). Firms wanting to operate in these economies face challenges that are uncommon in the developed world. Whilst these aspects are true for any foreign business considering operations in emerging markets, they are particularly critical for New Zealand civil construction firms. New Zealand civil construction firms face a number of significant challenges to internationalisation, some of which are the result of the nature of the industry, and others more a reflection of the characteristics of constituent firms.

One challenge for the construction industry is its highly cyclical nature. The cyclical nature of the New Zealand construction sector industry is likely to have an impact on firm size, productivity, and the ability of the New Zealand civil construction firms to plan for the future. A second challenge that could limit the internationalisation of New Zealand civil construction firms is their strong domestic focus, particularly because of a dependency on public works projects (Gibson, 2009). The government has a two-fold role in influencing the civil construction sector: one as a direct purchaser of construction services; but also as a developer of legislation and policies that impact on industry behaviour. Dependence on the domestic market is likely to have increased as a result of the Christchurch earthquakes of 2010 and 2011 which will necessitate a massive rebuild and investment in new infrastructure and housing (PriceWaterhouseCoopers, 2011). Estimates for the rebuild are as high as NZ\$30 billion (The New Zealand Sectors Report, 2013). This scale of activity is likely to create significant growth in the sector and lead the industry into the upside of any boom-bust cycle. However, the non-sustainability of domestic work on such a scale reinforces the case for construction and engineering firms looking for work overseas if they are to avoid a severe slump in the future.

A third challenge that is likely to constrain the internationalisation of New Zealand civil construction firms is their small average size. The construction sector has one of the highest proportions of small firms amongst all New Zealand industries with more than 50 per cent of firms having nine or fewer employees (PriceWaterhouseCoopers, 2011). Small average firm size means that a lack of funds may limit investment in capital and human resource development. While small firms can internationalise successfully (Bell, Crick & Young, 2004; Fillis, 2001), the research suggests that small size also brings limitations (Abbott, 2007; Coviello & McAuley, 1999).

Fourth, and partly as a result of small average size, productivity levels within New Zealand civil construction firms are likely to be low. When compared with other industries within New Zealand, productivity in construction is only half the national average (PriceWaterhouseCoopers, 2011). International comparisons between construction industries also reveal that productivity in New Zealand is well below that of comparator countries such as the United Kingdom, Australia and the United States (Page, 2010). The poor productivity performance of New Zealand construction firms is likely to place them at a competitive disadvantage when seeking overseas work.

Finally, the sector is also characterised by low levels of competition. The level of domestic competition is low as the market is dominated by a few large players and related sub-contractors. There are comparatively few foreign affiliates operating in the New Zealand construction sector, indeed foreign ownership in construction is lower than almost any other sector (Enderwick, 2012). Limited competition is likely to impede cost savings and technological innovation which could facilitate internationalisation. For these reasons - small size, poor productivity, limited competition, and strong domestic focus - New Zealand civil construction firms may find it difficult to undertake projects in the target markets.

While there are a number of studies that offer insights into the barriers faced by New Zealand firms (Akoorie & Enderwick, 1992; Deng et.al., 1995; Chetty & Hamilton, 1996; Chetty & Campbell-Hunt, 2003; Shaw & Darrock, 2004) unfortunately the existing literature on New Zealand firms presents limited insights into facilitative policies that support the internationalisation and movement of New Zealand civil construction firms into markets such as China, India, Indonesia and Vietnam. Therefore, the second research objective of this study aims to understand the constraints that New Zealand civil construction firms perceive when considering operations in the target markets.

Given the discussion, this study has two research objectives. Firstly, the study intends to examine the competitive strengths of New Zealand civil construction firms that could be deployed to the target markets. Secondly, the study aims to identify the key constraints that may limit the international operations of New Zealand civil construction firms. In an effort to address the two research objectives, the study reports case study evidence gathered from 21 respondents within the New Zealand civil construction industry. From the findings generated, the study offers key industry and policy implications that may contribute to the existing knowledge gap on the internationalisation of New Zealand based service firms. Lastly, the research seeks to make a theoretical contribution to the wider academic literature around internationalisation of small - medium size service firms within emerging markets and the challenges that they face.



## *1.2 Research Questions*

### *Research Question 1*

In a world economy mired by the global financial crisis, downturns in demand for construction services have been significant and the most attractive opportunities are increasingly found in the strongest emerging economies which have been less adversely affected by the global slowdown (Sankhe et.al, 2010; Tahilyani, Toshani & Tan, 2011). The economic growth enjoyed particularly by China, India, Vietnam and Indonesia, amongst other emerging markets, has led to the need to develop adequate infrastructure in these economies. For example, a report published by Price Waterhouse Coopers states that the value of construction output is likely to increase to \$12 trillion with much of the output coming from China, India, Vietnam and Indonesia (Betts et.al, 2011; Betts. et.al, 2013). Rapid economic growth, rising income levels and resultant urbanisation are likely to bring a major demographic shift within the next two decades in the target markets. For example, according to a report by Goldman Sachs, Chinese and Indian cities will grow by about 30 percent by 2018 (265million people in total) (Lawson & Dragusanu, 2008). These developments have led to an increasing demand of infrastructure facilities within the target markets, particularly in the area of Transport and Energy. However, financing infrastructure projects is a contentious and politically challenging issue in these economies. Once seen as a sole public sector responsibility, infrastructure development in the target markets has seen a rapid increase in private financing by both domestic and international civil construction firms over the last two decades. In addition to capital and perhaps more importantly, a number of local civil construction firms sector in the target markets lack the technical skills and expertise needed to develop world-class infrastructure.

According to the OLI framework and the Resource-Based View, the ability of a firm to succeed in an international setting is determined by its firm-specific advantages and resources. As discussed in Section 1.1, the developments in the target markets have attracted a number of international construction firms that possess technical expertise, human resource and capital that may be lacking in domestic firms. This suggests that civil construction firms that possess niche capabilities and resources are likely to consider operations in the target markets. Similarly, given the capabilities of New Zealand civil construction firms in the areas of road development and safety, sustainable architecture, baggage and cargo handling and clean technology amongst others, these firms are well placed to capitalise on the opportunities present in the target markets. Accordingly, the first research objective of this study is to analyse how the competitive strengths of New Zealand civil construction firms can be deployed to

address the key resource and capability demands of the infrastructure sector in the target markets. Given this objective, the first research question of this study is: *How do firm-specific advantages influence the ability of New Zealand civil construction firms to internationalise in the target markets?*

In effort to answer this question, the study evaluates key competencies and resources of New Zealand civil construction firms in the area of Transport and Energy infrastructure that can be successfully deployed in the target markets. The discussion that helps answer the above question draws on the OLI Framework and the RBV to understand the importance of firm-specific advantages and resources and its relation to a firm's ability to successfully internationalise. It should be noted that the data presented in this study is limited to Transport and Energy infrastructure.

### **Research Question 2**

International operations of SMEs are often characterised by a high degree of vulnerability. Since there are high costs incurred in the internationalisation of operations, SMEs are likely to be disadvantaged. This aspect is supported by Mathews LLL Model (2002, 2006). The LLL Model analyses how newcomer firms are able to challenge large established MNE's in the global economy. Often these challengers start small, lack key resources and are distant from major markets (Mathews 2002; 2006). The theory is based on the philosophy that firms internationalise not to exploit resources but in the pursuit of resources. This view is also supported by the theory of International Entrepreneurship which states that as some firms may internationalise at or near inception it is likely that those firms may not always possess the necessary resources or experiential knowledge required to succeed in a foreign market (Oviatt & McDougal, 1994).

The construction sector generally is characterised as an industry that is representative of large number of small firms (Enderwick, 1989; Ofori, 2010). Given their size, most firms in the construction sector therefore have limited access to resources such as labour and capital (Rashid & Aziz, 1995). The civil construction sub-sector in New Zealand is typical of this description as it is represented by a large number of SMEs (PriceWaterHouse Coopers, 2011). For this reason, it is likely that the firms in the sector have limited financial and human resources to consider international opportunities, a characteristic typical of SMEs (Hillebrandt, 2000; Mathews, 2002). The constriction of operations is reflected in the findings that New Zealand firms tend to concentrate on a limited range of markets (namely Australia and the Pacific Islands) (Akoorie & Enderwick, 1992; Chetty & Campbell-Hunt, 2003).

As this study highlights, New Zealand civil construction firms have traditionally had a strong domestic focus and this looks set to continue with significant planned government investment in rebuilding Christchurch City, badly damaged in a series of earthquakes during 2010 and 2011. While New Zealand civil construction firms have undertaken overseas work, much of it financed by government aid assistance, the focus of this work has been primarily within Australia and the Pacific Islands. This suggests that New Zealand civil construction firms may lack experiential knowledge to successfully operate in the target markets, a view supported by the Uppsala Model. In addition, factors such as poor productivity and limited competition in the domestic market could influence the entrepreneurial ability of New Zealand civil construction and heavy engineering firms to internationalise, certainly beyond the Pacific Islands. Empirical research reported in this research sets out to test whether aspects identified are the key factors that limit internationalisation of New Zealand civil construction firms. Given the above discussion, the **second research objective** of this study is to examine the constraints faced by New Zealand civil construction firms in internationalising operations. Accordingly, the second research question of this study is: *What are the key barriers that New Zealand civil construction firms face while considering operations in the target markets?*

In order to answer this question, the study aims to analyse the key constraints that New Zealand civil construction firms are most likely to encounter when considering business operations specifically in the target markets. In doing so, the study draws upon Mathews LLL model, International Entrepreneurship and the Uppsala Model. The concepts discussed in these theories will help understand the constraints faced by New Zealand civil construction firms when considering internationalisation. It should be noted that the study primarily draws upon literature that analyses barriers that a firm believes it needs to consider before internationalising its operations to a given foreign market (ex-ante). Liability of foreignness concerns extra costs incurred by a firm once it enters a foreign market (ex-post), which a local firm in that market would not incur. These costs result from investing, operating, and managing operations in the foreign country (Johanson & Wiedersheim-Paul, 1975) and arise due to lack of familiarity with the local business environment, cultural differences, geographical distances and institutional environment (Petersen & Pedersen, 2002).

Unlike liability of foreignness, barriers to internationalisation typically occur prior to the internationalisation of a firm and may comprise firm and industry specific barriers, financial barriers, managerial barriers and market-based barriers. As second research objective of this study proposes to analyse barriers that may possibly limit the internationalisation of New

Zealand civil construction firms, the study draws upon literature that helps examine the barriers that a firm is likely to consider prior to internationalising. Given that this study also presents examples of New Zealand civil construction firms that have undertaken operations in the target markets, the literature on liabilities of foreignness is incorporated in the study where appropriate.

### *1.2.1 Relevant Literature*

In order to answer the two research questions of this study, the author intends to draw on four distinct sources of literature:

1. Firstly, in order to better analyse and understand the motivations and constraints of New Zealand civil construction firms around international expansion, the study draws upon theoretical literature that provides a traditional explanation of international firm behaviour. More specifically this research uses the OLI framework (Dunning, 1980), a RBV (Barney, 1991), Mathews LLL Model (Mathews, 2002, 2006), International Entrepreneurship (Oviatt & McDougall, 1994) and the Uppsala Model (Johanson & Vahlne, 1977). The OLI framework and the RBV are used to evaluate the drivers of internationalisation for New Zealand civil construction firms. Mathews LLL Model, International Entrepreneurship and the Uppsala Model are used to analyse the possible constraints that New Zealand civil construction firms are likely to encounter when considering international operations.
2. Secondly, as one of the aims of this study is to identify opportunities for New Zealand civil construction firms in the target markets, an analysis of the contextual literature on the development of infrastructure facilities in the target markets forms an integral part of this study. The study draws upon literature from various government reports, documents and company websites to present a discussion on the importance of the target markets and the opportunities that these economies offer in the area of infrastructure development.
3. Thirdly, the study also presents limited evidence on the New Zealand civil construction sector and the characteristics of New Zealand civil construction firms. This section of the literature review also discusses examples of New Zealand civil construction firms doing business with the target markets. The examples discussed highlight that New Zealand civil construction firms have the skills and capabilities that are required in the

target markets. The study also draws on the experience of other foreign civil construction firms involved in infrastructure projects in the target markets.

4. Finally, the study also presents an analysis of the expansive general literature on the internationalisation of small - medium sized service firms. This literature helps to better understand the characteristics of New Zealand civil construction firms and the issues associated with internationalisation.

### ***1.3 Research Methods***

The methodology used for this research is primarily based on qualitative methods and focuses on content analysis, providing a review and integration of the literature identified as well as use of case examples where necessary. As the aim of this research is to conduct a systematic study to evaluate challenges that emerging markets present for the New Zealand civil construction sub-sector, it is important for the researcher to gain an understanding of the resources, capabilities that the firms possess and also to comprehend the different strategies that the firms use to deal with the constraints of international market participation. This is achieved through a process of data identification, analysis, and interpretation, based on the experiences and perspectives of executives of the respondent New Zealand civil construction firms. This allows the researcher to uncover conscious and unconscious explanations that executives have for what they consider as constraints to successfully internationalise. Accordingly, it would be correct to state that the research has a post positivist view as the author intends to present an overview of the New Zealand civil construction sub-sector and the significance of the target markets for the firms, the industry and New Zealand government agencies.

As the research uses a qualitative approach, a case study method is an appropriate tool to collect the data and present the findings of this research. The case study approach seeks a range of different kinds of evidence, which can be collated to get best possible answers to the research questions (Yin, 2009). As no one kind or source of evidence is likely to be sufficient on its own, the use of multiple sources of evidence, each with its own strengths and weakness, is a key characteristic of a case based research method (Yin, 2009). The case study is one of several ways of conducting research. The case study approach is best used when “how”, “why” and “what” are being posed and also when the investigator has little control over the events that are under question (Yin, 2009; Creswell, 2013). To meet the aims of this research the author intends to use content analysis and case-based examples from the civil construction sub-sector in New Zealand to provide an integration of existing literature and a number of case examples on the topic to seek answers to the questions raised above as well as to provide a contribution to an area of significant importance to New Zealand. This is achieved through focused semi-structured interviews with 15 New Zealand civil construction firms, one government agency, a ministry and one industry body. Findings disclosed are deductively analysed with the help of five theories- OLI Framework (Dunning, 1980), RBV (Barney, 1991), Mathews LLL Model (2002, 2006), International Entrepreneurship (Oviatt & McDougall, 1994) and the Uppsala

Model (Johanson & Vahlne, 1977). The concepts discussed in the above mentioned theories are used to carry out a thematic analysis of the data. The study uses an open coding process (Strauss & Corbin, 1998). The data collected is coded primarily using themes derived from the five theoretical frameworks used in this study. The data is analysed using the content analysis technique. The goal here is to analyse the case study data to build an explanation on the internationalisation of New Zealand civil construction firms. New Zealand civil construction firms, industry bodies and government agencies interviewed are the unit of analysis and are treated as individual case examples. A within and cross-case analysis ensures consistency, reliability and validity of the data collected.

### *1.4 Structure of the Study*

The proposed structure of the research is as follows: Chapter 1 aimed to establish the importance of this topic and the insights this research could help gain. It also outlined the questions that this study intends to answer. To establish the need for internationalisation and increase the level of international interaction, Chapter 2 of this study discusses the importance of international markets for resource based economies such as New Zealand. The aim here is to analyse the economic growth of the emerging markets with a focus on four markets in Asia – China, India Vietnam and Indonesia. The key points discussed are the size and the growth of these markets and hence the opportunities across different sectors, especially in the area of infrastructure development. The chapter presents an analysis of the main sub-sectors - Transport and Energy that have come under strain owing to increasing urbanisation in these markets and the role of governments as well as businesses (both foreign and local) in facilitating the development of these sub-sectors. The opportunities in these sectors are analysed by identifying the potential gaps these sectors currently experience in the target markets and relate them to the capabilities that New Zealand civil construction firms possess.

Following this, the study begins by analysing theories that help understand the reasons (why) and patterns (how) of internationalisation. Accordingly Chapter 3 presents a detailed discussion on five theories: OLI Framework, RBV, Mathews LLL Model, International Entrepreneurship, and The Uppsala Model. The OLI Framework and RBV View provides a theoretical framework for describing and explaining the relationship between a firm's resources and its ability to attain competitive advantage. Mathews LLL Model, International Entrepreneurship and The Uppsala Model discussed in this chapter represent different views on the reasons for a firm to internationalise. The internationalisation strategy of small and medium sized enterprises (SMEs) is considered in the context of the concepts proposed by the five theories. Following the discussion on the theories, the chapter presents the two research questions of this study. The chapter concludes by introducing the research propositions of this study. The researcher proposes seven specific propositions that will help answer research questions outlined in the chapter. These propositions help analyse and validate the findings of this study.

Chapter 4 discusses the research methods followed in this study. It starts by discussing the significance of a post-positivist view for this research and provides reasoning for a deductive approach in analysing the data. A breakdown of how and why the participants from the firms, government agencies and an industry body were selected is provided. The chapter also

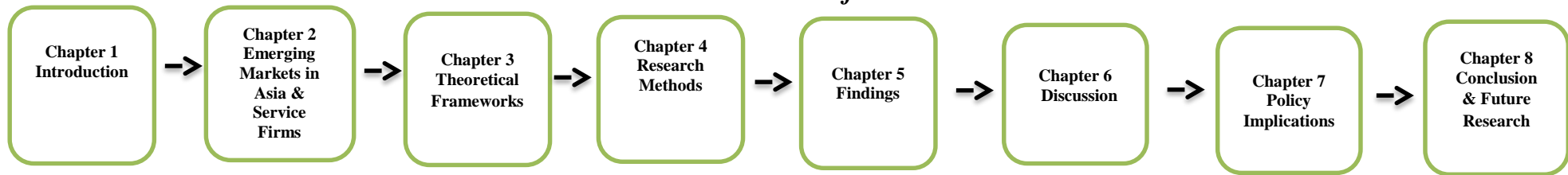


emphasises the rationale behind using a case-study method and provides details of how the data was analysed.

This is followed by an in depth analysis of the main findings in Chapter 5. The chapter highlights the nature of the firms that were interviewed and looks at factors such as size, resource availability (namely capital and labour) and specialisations that the firms possess. This chapter also analyses the influence of aspects like size and distance from the target markets, market failures, competitiveness, labour skills and uncertainty and perceived risks in the firms willingness to internationalise their operations. Following this, Chapter 6 presents a discussion of the key themes that were identified in the findings. Amongst other factors, this section provides an in-depth insight into the key constraints that are most likely to affect New Zealand civil construction firms while considering operations in the target markets. This is done by analysing the characteristics of both the target markets and New Zealand construction and engineering firms. The findings are deductively compared to five theories: The OLI Framework, The Resource Based View, Mathews LLL Model, International Entrepreneurship, and The Uppsala Model and other related literature on the internationalisation of firms as appropriate.

Chapter 7 aims to present possible policy implications that could act as a framework or a guideline for the New Zealand construction and engineering sector in particular. The chapter presents key industry strategy and policy implications. Given the discussion in this study it is apparent that the current government policies and industry strategy have had limited impact on promoting the importance of international markets to New Zealand construction sector. Accordingly recommendations are proposed around improved corporate strategy around internationalisation of New Zealand civil construction firms and achieving greater market access in the target markets. The suggestions made emphasise on the importance of the firms having a long-term commitment towards the target markets given the prospects they stand to offer. In order to achieve success in these markets, the policies also focus on developing real on-the-ground understanding of the target markets by accessing local networks and propose new business models. Chapter 8 concludes the study by presenting a brief summary of the entire research and emphasises the fact that the New Zealand civil construction firms must increase the level of international engagement in order to further boost productivity and growth in the economy as a whole and this could be achieved by engaging with the target markets that offer tremendous opportunities for them to improve their performance not only at a domestic but also at an international level. It also offers recommendations for future research.

*Structure of the Thesis*



## *Chapter 2 New Zealand Construction Capabilities and Infrastructure Development Opportunities in Emerging Asia: A Research Context*

### *2.1 Introduction*

Service firms play an important role in the global economy. Amongst other service sectors, the construction sector plays a vital role in any economy, acting as a main contributor to employment, output and GDP. The New Zealand construction sector is seen as a significant driver of economic growth and New Zealand construction firms play a large role in the New Zealand economy. Emerging markets are expected to be the dominant drivers of global economic growth in the foreseeable future. Continuing high rates of economic growth within these economies coupled with rising levels of urbanisation has created massive demand for new infrastructure. While traditionally such investment has been largely domestically funded by government and local or regional banks, the scale of current infrastructure needs is encouraging greater acceptance of private and foreign investors, a relaxation of operating restrictions, and experimentation with new business models such as public-private partnerships (PPPs). As a result, the emerging markets have seen a steady growth of international construction firms that are keen to capitalise on the growth opportunities that these economies offer.

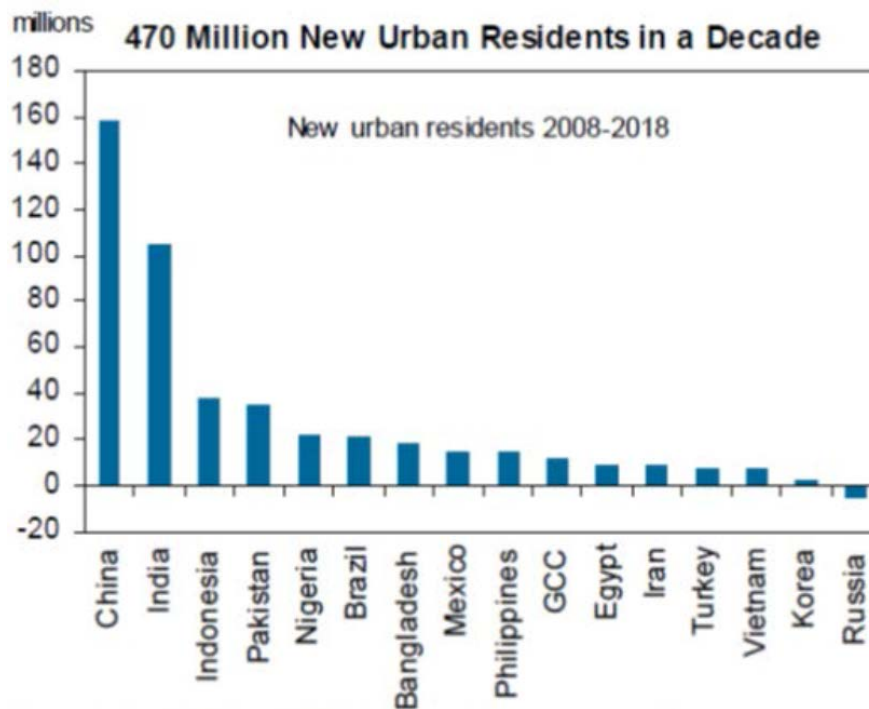
Accordingly, the aim of this chapter is to set the context for this study. This is achieved by presenting an overview of the key infrastructure sectors that are likely to experience the strongest growth within emerging markets. This is addressed in Section 2.3.1 of this chapter. In particular the section analyses four key markets: China, India, Vietnam and Indonesia and the prospects they offer, particularly in the areas of Transport and Energy infrastructure. Having analysed these opportunities, Section 2.3.2 discuss examples of leading New Zealand civil construction firms that have been early in recognising opportunities in the target markets. Examples discussed in this sub-section suggest that New Zealand civil construction firms have both experience and expertise that are recognised in the target markets. The importance of collaboration with local firms and key stakeholders is also discussed. It should be noted that the analysis conducted in this chapter is by type of infrastructure and is not market specific. The rationale behind this is the expectation that foreign construction firms hoping to invest in these markets specialise in either the product/process and or/service and not the market itself. The reason behind analysing these sectors is the close match between New Zealand civil construction capabilities and the opportunities present in the above mentioned sectors.

## *2.2 Internationalisation of Construction Services: An Overview*

The service sector plays an important role in the global economy. The service sector represents about 67 percent of the global GDP and approximately 55 percent of the GDP of developed countries. Amongst services, the construction sector plays an important role in the global economy. According to the World Trade Organisation for example, the total exports of construction services, rose two percent to US\$115 billion in 2013, with emerging markets in Asia representing a major share of that trade (approximately US\$45 billion) (World Trade Organisation, 2013). The sector is reported to have experienced an annual growth of 11 percent between 2005 and 2013 (World Trade Organisation, 2013). In terms of GDP, the construction sector accounted for 12.2 percent of the world GDP in 2012 and 13.5 percent in 2014 (Betts et.al, 2013). The sector has managed to achieve this growth despite a downturn in the global economy during the financial crisis of 2008-2009. Increasing internationalisation of construction services, especially in the last decade, is perhaps one of the main reasons behind the sector's increasing contribution to the global economy. As the construction sector in the developed economies slows down as a result of public deficits, a number of construction firms from these countries are increasingly focusing on markets in Asia and Eastern Europe that offer promising prospects for growth and expansion (Betts et.al, 2013; Sankhe et.al, 2010).

In general, there is a strong relationship between urbanisation and economic growth and as highlighted in figure 2.1 below a rise in the income per capita has brought about a wave of urbanisation in the emerging markets with China and India taking the lead.

**Figure 2.1 Rate of Urbanisation**



As these markets continue to experience surging growth, employment opportunities especially in the cities will prove to be a powerful magnet for growth in the urban population. However, the speed of urbanisation poses an unprecedented infrastructure challenge for these economies. For example, across all the major quality - of - life indicators, India's cities fall well short of delivering even a basic standard of living for their residents. Combine this with India's large-scale urbanisation and the task is likely to become far more onerous. In per capita terms, the Indian government's annual capital spending on infrastructure development of US\$17 is only 14 percent of China's US\$116 and 4 percent of the UK's US\$391. If India continues to invest in urban infrastructure at its current rate, it will fall woefully short of what is necessary to sustain prosperous cities and subsequent economic growth over the next decade (Lamont, 2012 (a&b); OECD, 2013 (a); Sankhe et.al, 2010).

As the urban population and its income increase, demand for key infrastructure services is likely to grow in these economies. Traditionally, most infrastructure projects in markets like China, India, Vietnam and Indonesia (amongst other emerging markets) were funded by governments or domestic banks, with most private investors (both local and international) being largely excluded. Those that were allowed to participate faced severe restrictions, including complex regulatory and legal regimes, uneven workforce quality and political interference. However, given the scope of infrastructure development, these markets have

opened the sector to both local and international construction firms especially over the last seven years. According to the global construction report published by Oxford Economics and Price Waterhouse Coopers (2013) approximately 52 percent of the total global construction activity is generated in the emerging markets (Betts et.al, 2013). This figure is set to increase by another 11 percent by 2025, with China and India contributing the most to this growth in the emerging markets (Betts et.al, 2013). Similarly, countries like Indonesia, Vietnam and the Philippines are becoming increasingly attractive and represent a US\$350 billion construction market that is expected to grow at more than six percent per year (Betts et.al, 2013). These developments have created enormous opportunities for international construction firms and is likely to see the emergence of a number of private investments made by both local and international construction firms in these markets.

Given the points discussed in this section, it is important to understand the opportunities that markets like China, India, Vietnam and Indonesia offer for international construction firms, including New Zealand civil construction firms. The sections to follow outline the importance of infrastructure in emerging markets. In particular, the sections highlight the key sectors that have attracted international construction capabilities and presents examples of some of the leading New Zealand civil construction firms that have successfully undertaken infrastructure projects in the target markets. This discussion is critical for this study as one of the main objectives of this research is to understand how firm-specific construction capabilities determine the ability of New Zealand civil construction firms to undertake infrastructure projects in the emerging markets.

### 2.2.3 Importance of Infrastructure in Emerging Markets - An Overview

There is little agreement regarding the term infrastructure, but the concept in its broadest sense comprises the physical facilities, institutions and organisational structures or the social and economic foundations for the operation of an economy. Within this broad concept, social infrastructure (e.g.: health and education) can be distinguished from economic infrastructure. The latter supports production activities of enterprises at various points of the value chain and is thus directly relevant to the competitiveness of firms as well as to economic development within a given market. This section focuses on economic infrastructure which is a homogenous group in the sense in that it underpins the functioning of other economic activities and so is directly relevant to understanding the level of development experienced by a given country. Infrastructure consists of a group of industries or sub-sectors which includes electricity, gas, telecommunications (which are largely affected by the advent of advanced information and communication technology, affecting the nature of facilities and services rendered) water and sewage, airports, roads, railways and seaways (the last four collectively referred to as transport infrastructure) (UNCTAD, 2008).

**Table 2.1 Infrastructure Sectors and Related Activities**

Infrastructure			Supplier industries and activities			Infrastructure sectors		
						Infrastructure industries		Services relying directly on infrastructure
						Facility operation and maintenance	Infrastructure services	
Transport	Seaports	...	Marine cargo handling (4491)	Towing and tugboat services (4492)	Deep sea transportation of freight (441–442)			
	Railroads	Railway track equipment (part of 3531)	Railroads, line-haul operating (4011)	Railroad switching and terminal establishments (4013)	Local and suburban transit (4111)			
	Roads and highways	Heavy construction other than building (16, exc. 1623)	Terminal and joint terminal maintenance (423)	Terminal and service facilities for motor vehicle (417)	Motor freight transportation and warehousing (421–422)			
	Airports		Airports, flying fields, and airport terminals (458)					
	Other	Parts of heavy construction, not elsewhere classified (1629)	...	Parts of miscellaneous services incidental to transportation (4785)	Air transportation (451–452)			
Telecommunications		Telephone and telegraph apparatus (3661)	Telephone communications (481)		Radio broadcasting stations (4832), Television broadcasting stations (4833)			
		Telephone interconnect systems (7385)	Telegraph and other message communications (482)					
Water			Water supply (494)		Irrigation systems (497)			
			Sanitary services (495)					
Power	Water, sewer, pipeline, and communications and power line construction (1623)		Electric services (491) (generation and transmission)	Electric services (491) (distribution)	...			
			Natural gas transmission and distribution (4922), gas production (4955)	Natural gas transmission and distribution (4923) and distribution (4924)				
			Combination electric and gas, and other utility (493)					
			Steam and air-conditioning supply (496)					

Source: UNCTAD.

(Source: UNCTAD, 2008)

Table 2.1 outlines the main sectors within the infrastructure industry and their related areas. Although the above mentioned features (in table 2.1) generally apply to all the different sectors within the infrastructure industry, it is important to note that each of the sectors has its own distinctive characteristics. As an economy's engagement in international trade and services increases, so does the need to ensure that transport, energy, water and telecommunications have the capacity to support increasing levels of economic activity. The provision of good quality infrastructure is a pre-requisite for economic and social development. Indeed it is considered to be one of the main preconditions for enabling markets to accelerate or sustain the pace of their development. Infrastructural facilities provide goods and services that are crucial for the efficiency, competitiveness and growth of production activity in a market. Furthermore provision of basic amenities acts as an indicator of the living standard of a given country. Access to affordable electricity and drinking water for instance is an important determinant of the living standards of a country's population (UNCTAD, 2008). Thus it can be stated that infrastructure is both a cause and consequence of economic growth. The focus in this section is on the way in which economic growth drives demand for infrastructure investment. But what is worth noting are the ways in which infrastructure contributes to the overall growth of an economy because this mutually reinforcing relationship helps support higher demand for investment. Infrastructure's role in integrating countries into the global economy through telecommunications and transport for instance, is obvious; however infrastructure can also raise the quality of human capital, which is a key factor in the growth of any economy.

The fundamental role of infrastructure has been brought into sharp relief in recent years as a growing number of emerging markets have been drawn into a cycle of growth and a greater participation in the global economy, but by doing so, they are finding further growth constrained by the quantity and quality of their infrastructure. As highlighted in Section 2.2 many emerging markets today face huge infrastructure investment needs but lack the necessary capacity domestically to meet them. Mobilising financial and other resources to respond to these needs are among the main challenges which beset governments of these economies and the international community. The formidable gap between the needs and the availability of necessary resources has been one of the drivers behind the fundamental change in the role of the state in provision of infrastructural facilities especially in the emerging markets within Asia as the availability of adequate infrastructure is related to the level of inward FDI in these economies. Research suggests that infrastructure availability



promotes both types of FDI – vertical and horizontal, with comparatively more impact on vertical FDI as it reduces operational costs. For example, Khadaroo and Seetanah (2010) claim that gains rendered by infrastructure growth are associated with greater accessibility and reduction in transportation costs.

Further, public goods reduce the cost of doing business for foreign enterprises and contribute towards maximization of profit (UNCTAD, 2008). Empirical studies also propose that public goods have a vital impact on cost structure and productivity of private firms (Morrison & Schwartz, 1996; Quere et.al, 2007). Erenberg (1993) assumes that if such kinds of infrastructure were not extended to local and multinational enterprises publicly, then these enterprises would be operating with less efficiency as they would have to build their own infrastructure which results in duplication and waste of resources. Poor infrastructure increases transaction cost and limits access to both local and global markets which ultimately discourages FDI. In emerging economies, the role of infrastructure is twofold, promotion of FDI and greater return on investment to business owners. Infrastructure can have different impacts on developing and developed nations. In emerging economies in particular, infrastructure has a significant attractiveness for FDI inflows (Asiedu, 2006; Khadaroo & Seetanah, 2010).

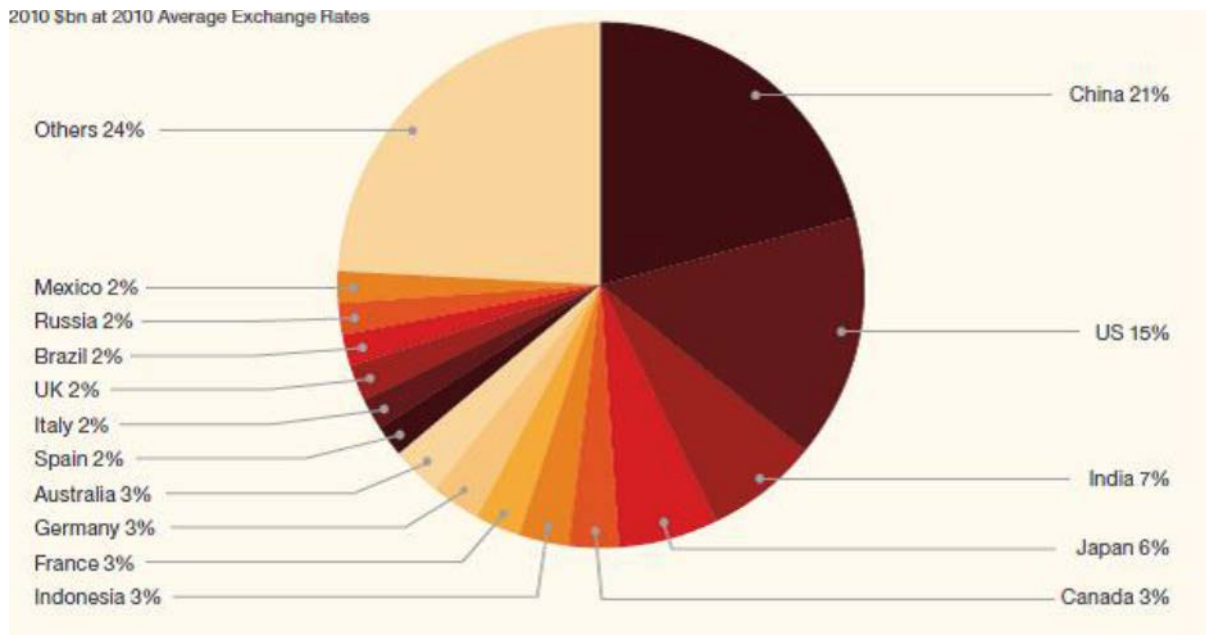
From the above discussion it can be seen that the provision and quality of adequate infrastructure is a major determinant of the competitiveness of an economy as a whole. Their role as inputs for all other industries means that the entry and performance of private companies (both domestic and international) in infrastructure activities have to be evaluated not just in terms of the efficiency and competitiveness of the services concerned based on cost, price and quality for example, but also in terms of their impact on industrial users. Infrastructure is the key to economic development and integration into the world economy and so increasing investment in this area of activities is a priority for emerging economies (UNCTAD, 2008). It is not only a question of “if” rather “what” “when”, “how much” “by whom” and “for whom” will the investments be made. At the same time, the question surrounding investment by private firms (both domestic and international) in infrastructure activities is more far reaching than in most other industries and touches on the economic, social and political spheres in any given market. Keeping this in mind the next section presents an analysis of the development of infrastructure facilities in emerging markets within Asia and specific sectors where investments are required within these markets.

### *2.3.1 Development of Infrastructure in Emerging Markets - A Focus on Emerging Asia*

Economic growth is driving urbanisation and vice versa in emerging markets. Given the flood of new urbanities that these markets in particular are likely to experience, these economies will require significant investments in energy, housing, transport (road, rail and air), water and sanitation amongst a host of other public services. Hence it can be seen that the demand for infrastructure can be modelled as a function of both income growth and resultant urbanisation (Tahilyani, Toshan & Tan, 2011). According to World Bank estimates emerging markets currently invest only 3-4 percent of their GDP in infrastructure; although the need is to invest an estimated 7-9 percent. For example, research by McKinsey Quarterly estimates that the emerging markets in Asia require an investment of US\$8 trillion towards infrastructure projects over the next decade to remedy historical under investment and accommodate the expected explosion in demand (Tahilyani, Toshan & Tan, 2011).

In addition reports by firms like Price Waterhouse Coopers state that the value of construction output in the global economy is likely to increase to US\$12 trillion in 2025 with much of the output coming from emerging markets in Asia (Betts et.al, 2013). As seen in the figure 2.2 the emerging markets (within Asia in particular) are likely to attract the most investment in construction services over the next five years. This is particularly true for markets like China, India and Indonesia. As seen below (figure 2.1) China's rapidly growing construction market, boosted by stimulus spending, became the world's largest market in 2010, overtaking the U.S. By 2020 emerging markets are expected to account for 55 percent of global construction output, up from 46 percent today (Price Waterhouse Coopers, 2014). In terms of GDP, the sector will make up 16.5 percent of GDP by 2025, up from 13.5 percent in 2013 (Betts et.al. 2013). Meanwhile, construction in most developed countries is likely to be constrained by large public deficits, austerity programmes, muted population growth and limited economic expansion (Betts et.al, 2013; Kynge, 2014; Tahilyani, Toshan & Tan, 2011; Sankhe et.al, 2010).

**Figure 2.2 Construction Markets in 2020**

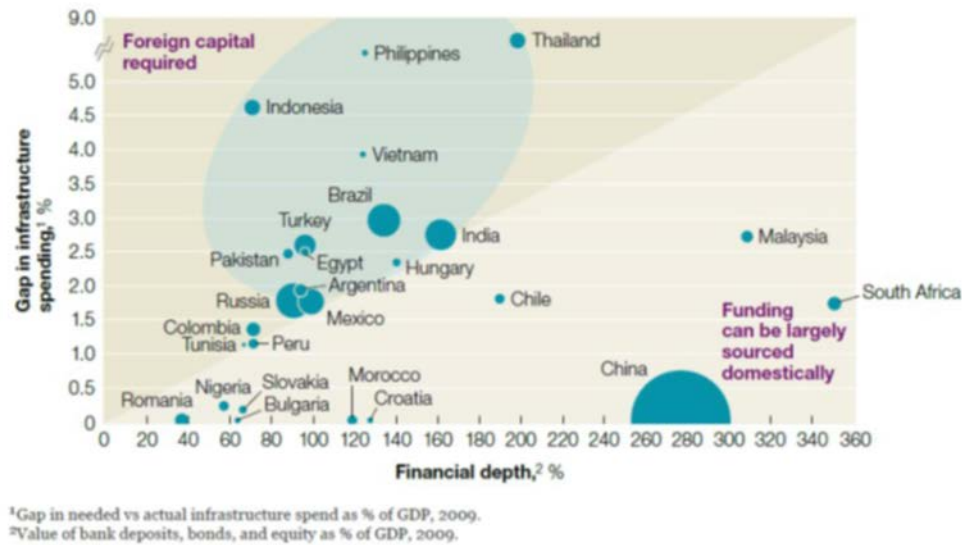


(Source: Betts et.al, 2011)

A cyclical rebound is expected in the developed markets, particularly in the U.S. during the next five years. On the other hand, despite the forecast of a slower growth rate in 2015-2020 in the emerging markets, the growth in construction services is still expected to be almost four percent higher than in developed countries. On this basis the importance of emerging markets will increase from 46 percent of the global construction output in 2010 to 55 percent in 2020 with an offsetting decline in the developed countries (PriceWaterhouseCoopers, 2014). The majority of the growth that will occur in the emerging markets will be concentrated in Asia with an expected growth of six percent over the next decade in this region (Betts et.al, 2013; Kynge, 2014; PriceWaterhouseCoopers, 2014). The four markets in Asia expected to achieve this growth are China, India, Indonesia and Vietnam (Betts et.al, 2011; Betts et.al, 2013; Hook et.al, 2008; PriceWaterhouseCoopers, 2014). China for example, will contribute 21 percent towards the global construction output in 2020 making it the largest market in the world. The U.S remains the second largest market at 14 percent. India is estimated to overtake Japan to become the third largest contributor at seven percent of the total. Amongst the other major countries, Indonesia is expected to be one of the fastest growing markets over the next ten years, moving from 12<sup>th</sup> largest market in 2010 to sixth largest market in 2020, closely followed by Vietnam. In comparison as figure 2.1 shows forecast growth in Western Europe is slow with most of the markets in the region averaging only two percent growth (Betts et.al, 2011; PriceWaterhouseCoopers, 2014).

The current economic climate presents a potential dilemma for infrastructural development in these markets. Indeed most governments are well aware of the need to build strong infrastructure but face enormous challenges in devoting sufficient capital resources to such projects (Betts et.al, 2011; Kynge, 2014; PriceWaterhouseCoopers, 2014). While budgets are extremely tight, failing to invest in the development of appropriate infrastructure could jeopardise future tax revenues as investment in infrastructure especially in the emerging markets underpins the development of the national economy and also has the potential to stimulate further economic growth. Thus the role of private capital in financing infrastructure is likely to be an important one (PriceWaterhouseCoopers, 2014). In recent years there have been signs especially within markets like China, India, Vietnam and Indonesia that private global capital is increasingly welcome. The scale of investments required means it will be difficult to undertake projects that are solely funded through public finance (see figure 2.3). Governments in these markets need to engage with the private sector and tap a range of funding sources (Tahilyani, Toshani and Tan 2011; PriceWaterhouseCoopers, 2014). The combined effects of increased stimulus spending and reduced tax receipts have increased deficits and as a result restrictions on foreign investment are easing with a growing number of projects being carried out using Public Private Partnerships (PPP). The estimation is that over the next 10 years US\$1trillion of the US\$9trillion of projected infrastructure projects will be open to private investors under the PPP model (Tahilyani, Toshani & Tan 2011; PriceWaterhouseCoopers, 2014). The questions for owners of global capital are how to identify the opportunities, how to mitigate the main risks involved, and how to develop appropriate entry strategies.

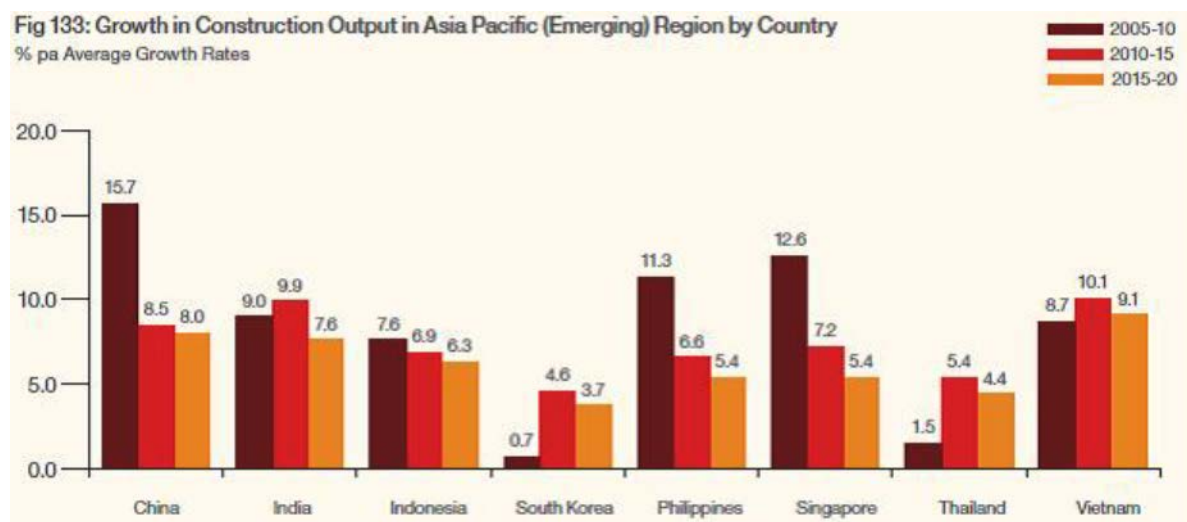
**Figure 2.3 Demand for Foreign Capital**



(Source: Tahilyani, Toshan & Tan 2011)

Infrastructure development and maintenance is set to become a vital area of focus for both local and international businesses in the next decade and is intrinsically linked to the economic prospects of markets. The graph below highlights the growth in total construction output in the region in 2005 and 2020.

**Figure 2.4 Growth in Construction Output in Asia Pacific**



(Source: Betts et.al, 2011)

As evident of the eight markets highlighted above, China, India, Indonesia and Vietnam are the four that are likely to experience the most substantial growth in construction output between 2010 and 2020. As seen in the graph, Vietnam is the fastest growing market with an expected

output of nine percent closely followed by China at eight percent by 2015-2020. The other two markets that are likely to experience relatively higher growth rates are India and Indonesia achieving a total output growth of seven percent and six percent by 2015-2020 respectively (Betts et.al, 2013).

Increased demand for infrastructure facilities perhaps is the reason for the proposed growth in the construction output over the next ten years, making these economies increasingly attractive for both local and international private investors. Within infrastructure, the key sub-sectors that have attracted significant interest from private investors over the last five years in particular are Energy, Roads, Railways and Airports (the latter three being a part of Transport infrastructure). As the target markets continue to further engage in the global economy, they are likely to experience a growth in incomes coupled with increases in population density and resultant urbanisation, infrastructure development will be a strategic area of focus. Transport and Energy projects remain key drivers of growth for governments especially in these economies as seen in table 2.2 below (Kumra, 2007; Pandit, 2007). As international construction firms seek to capitalise on these opportunities understanding different approaches to financing these projects will be key (refer table 2.2) (Betts et.al, 2011; PriceWaterhouseCoopers, 2014; Tahilyani, Toshani & Tan 2011; UNCTAD, 2008).

The other possible reason behind the interest in these sub-sectors may be due to the fact that although domestic firms in the target markets have access to skills and capital, they at times lack the necessary know-how and innovative abilities critical for successful development and growth in these sub-sectors. The company examples stated in table 2.1 highlight that foreign construction firms have expertise in design and heavy engineering, baggage handling, project management, consultancy and architecture - capabilities that are required to build and upgrade existing infrastructure across the four sub-sectors. Also, the company examples in table 2.2 suggest that opportunities for foreign construction firms will come in the form of Public Private Partnerships (PPP) and/or collaboration, enabling each partner (local business and/or government) to draw on its strengths and augment its capabilities in other areas. Such collaborations could give foreign firms direct access to other possible projects (and third parties) which may not be possible without local involvement. In addition, most infrastructure projects are funded and supported by local governments and collaboration or a PPP may be the only entry mode that a foreign firm is able to use to gain access to the market. Apart from this, succeeding in the target markets, (especially in the area of infrastructure development) requires

long-term engagement to create alliances with local firms and governments that may perhaps help foreign construction firms establish and maintain their presence in those markets.

**Table 2.2 Opportunities in Emerging Asia**

<i>Key Emerging Markets (Asia)</i>	<i>Highlights</i>	<i>Areas of Investment</i>	<i>Participating International Construction Firms</i>
China	<p>Second largest economy in the world (after U.S). The most rapidly developing market in the BRIC group. (Moe, Maasry &amp; Tang,2010)</p> <p>Growing pressure on urban infrastructure facilities has seen growing investments in the area.</p> <p>Ranks 28<sup>th</sup> in the World Economic Forum Global Competiveness Index (Schwab, 2014; World Economic Forum, 2014).</p>	<p>Expected investment in road networks to be approximately US\$12 billion over the next decade. Intends to invest US\$480 billion in constructing rail networks. Plans to develop 100 regional airports in the next three years. Estimated investments in both rail and airport infrastructure is US\$ 24.5 billion (Shao &amp; Qing, 2014).</p> <p>Heavy investment in developing renewable energy sources to service China's growing demand. Estimated investment in the next two years US\$89.5 billion (Gallucci, 2015).</p>	<p>Halcrow Group(UK) + Govt of China (Roads – Design and Project Management – (Contract)) (CH2M Hill, 2011)</p> <p>Aedas (UK) + Govt. of China (Railways – Design and Architecture – (Contract))(Aedas, 2013)</p> <p>NACO (Netherlands) + Siemens (Germany) + Beijing Capital International Airport (Airports – Consultancy and Heavy Engineering – (Contract))(Jing, 2011)</p> <p>Gamesa (Spain) + China Long Yuan Power Group + China Resources Power Holdings + China Datang Power Co. Ltd (Energy – Heavy Engineering (JV))(Gamesa Corporation, 2011)</p>
India	<p>Third largest economy in the world (after U.S and China) (Moe, Maasry &amp; Tang,2010)</p> <p>Infrastructure is expected to be the fastest growing sector in the next decade. (Gupta, Gupta &amp; Netzer, 2009; Guruprasad, 2010)</p> <p>Ranks 71<sup>st</sup> World Economic Forum Global Competiveness Index (Schwab, 2014; World Economic Forum, 2014). India requires US\$1.7 trillion in investments over the next decade. India's</p>	<p>Government aims to invest US\$1.7 trillion over the next decade (IBEF, 2015). Third largest road network in the world. Estimated investment in road networks over the next decade is US\$93 billion (IBEF, 2015). Fourth largest rail network in the world and aim to upgrade over the next five years. Estimated investment US\$137 billion (IBEF, 2015). Approximately US\$120 billion expected to be invested in airport infrastructure (NDTV, 2015). Growing emphasis on renewable sources of energy. Investment of US\$250 billion is needed in the</p>	<p>Vinci (France) + Hinduja Group (India) (Roads – Consultancy and Design (JV)) (DNA, 2010)</p> <p>Transstroy + OJSC Consortium (India-Russia Collaboration) (Railways – Consortia)) (Krovvidi, 2013)</p> <p>Doosan Engineering (S.Korea) (Energy – Heavy Engineering (Contract)) (Doosan Engineering, 2011)</p> <p>Glidepath (NZ) + Mumbai International Airport (India) (Airports – Baggage Handling Systems (FDI)) (Scoop, 2009)</p>



	ability to finance new development is more limited compared to China (IBEF, 2015).	next five years to upgrade and improve the country's power infrastructure (IBEF, 2015).	
<i>Vietnam</i>	<p>The fastest growing economies in the Next 11 economies group (O'Neill &amp; Stupnytska, 2009). Infrastructure investment a top priority for the government.</p> <p>Ranks 68<sup>th</sup> in the World Economic Forum Global Competitiveness Index (Schwab, 2014; World Economic Forum, 2014).</p>	<p>Government aims to invest US\$500 billion in infrastructure development in the next decade. Only 10 percent of all road networks are paved. Investment in road projects over the next five years is estimated at US\$9.26 billion (Anh, 2014). Local railway industry needs approximately US\$8.5 billion for building and upgrading during the 2016-2020 period (Ngoc, 2015). Investments in developing airport infrastructure is estimated to cost US\$10.1 billion over the next five years (Caries, 2013). Government plans to spend US\$20 billion on energy projects over the next five years (Betts.et.al, 2013).</p>	<p>Vinci (France) + Deo Ca Investment JSC (Vietnam) (Roads – Project Management (Contract)) (Malmaison, 2013)</p> <p>Alstom (France) + Vietnam Railways Corporation (Railways – Heavy Engineering(PPP))(Railway Technology, 2009)</p> <p>Kawasaki Heavy Industries (Japan) + Vietnam Railways Corporation (Railways – Design and Heavy Engineering(PPP)) (Railway Technology, 2009)</p> <p>Alstom (France) + VienCom Electricity (Vietnam) (Energy – Consultancy and Project Management(PPP)) (VIR, 2013)</p> <p>Airis International (US) + Civil Aviation Administration of Vietnam (Vietnam) (Airports – Design and Heavy Engineering(PPP))(Vietnam News, 2013)</p>
<i>Indonesia</i>	<p>Second fastest growing economy in the Next 11 economies group (O'Neill &amp; Stupnytska, 2009). Infrastructure development accounts for 60 percent of Indonesia's construction output (Betts.et.al, 2013).</p> <p>Ranks 34<sup>th</sup> in the World Economic Forum Global Competitiveness Index (Schwab, 2014; World Economic Forum, 2014).</p>	<p>Total expected spending on infrastructure projects estimated at US\$468 billion for the next decade (Smith, 2014). Government plans to add another 5000 kms of strategic road networks over the next four years and plans to invest US\$7 billion per year (World Bank, 2013). Rail networks a major concern for the government. Plans to invest US\$ 47.2 billion over the next decade years to develop and upgrade rail infrastructure (Smith, 2014). Approximate spending on airport infrastructure over the next five years estimated at US\$44billion (Carnis &amp; Yuliwati, 2013). Annual</p>	<p>Alstom (France) (Railways – Heavy Engineering and Design (Contract)) (Railway Gazette, 2011))</p> <p>Alstom (France ) (Energy – Heavy Engineering(Contract)) (Alstom Indonesia, 2015)</p> <p>GVK Power (India) + Incheon International Airport Corp (S.Korea) (Airports – Design, Consultancy and Project Management – (Greenfield FDI)) (Fabi &amp;Paramaditha, 2013)</p>

		investment of US\$5 billion required for the next seven years to keep up with growing energy needs (The Economist, 2014).	
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The provisions made by governments to attract foreign capital (which include tax breaks and partnerships) have drawn many foreign businesses and governments to these markets. The firms highlighted in the table tend to possess key technical skills and know-how that local firms in the target markets do not necessarily have. This aspect is recognised by local firms (and governments) that are keen to attract the innovative abilities that foreign firms possess. Local firms in the target markets are keen to create global partnerships not only with the intention to expand their presence internationally, but also with the prospect of filling gaps through transfer of knowledge/skills and technology across different areas within the infrastructure sector. Local firms could, over time, develop the requisite capabilities themselves, but it often makes sense for them to partner with foreign firms to gain access to the necessary resources. Innovative, market-focused product development services are typical of most foreign businesses as it helps them create a cost effective solution that would enable local companies and governments to identify and create relationships with complementary foreign companies. Hence, although these markets have benefits of low cost production and large size, the inability to develop infrastructure facilities to world-class standards has motivated foreign construction firms to collaborate with local governments and counterparts to fill potential gaps present in these sub-sectors to the benefit of both sides.

### *2.3.2 Opportunities for New Zealand Civil Construction Firms*

Considering the gaps that currently exist especially in the area of Transport and Energy infrastructure development, New Zealand civil construction firms are well placed to capitalise on the opportunities present in emerging economies. A select number of New Zealand civil construction firms have been early in recognising the significance of China India, and Vietnam and have moved into these markets with the hope of benefiting from the prospects offered especially in the area of infrastructure development. Aviation New Zealand, the apex industry body in the aviation sector in New Zealand, for example, entered the Indian market in 2008. The aim was to partner with Indian firms and authorities to leverage on New Zealand's unparalleled expertise in the aviation sector. Aviation New Zealand is keen not only to expand the market for its services but also to engage in small-scale engineering joint ventures. The industry body also finds that it has the knowledge and experience in building and running the sort of airports that will be in demand particularly in the regional centres in India (The Economic Times, 2012). Apart from this, Aviation New Zealand has also partnered with many Indian Airlines to offer training services to enhance existing piloting skills in the Indian market. Glidepath and the BCS Group serve as prime examples of firms that have been successful in offering services in the area of baggage and cargo handling to a number of airports in markets including China, India and Malaysia. Both Glidepath and BCS were recognised for their creative offerings and successfully partnered with the local government authorities to service these markets. In addition, consultancy firms like Beca and Opus are acknowledged for their services in area of building and structural engineering in China, India and Indonesia.

The development of the Pacific Place, a landmark in Jakarta, is a classic example of the expertise that New Zealand construction and engineering firms bring to the international market. Beca provided mechanical and electrical, and structural engineering services, working in a design team with international architects Smallwood Reynolds Stewart and local architects and engineers. Being a complex three tower structure in a seismically active area, Beca's seismic design expertise was a major factor in developing successful structural solutions early in the design process (Beca, 2007). Beca is also well known for its services in the area of transport infrastructure and has undertaken road and highway development projects by rendering consultancy services to their Indian counterparts and government authorities. Opus has partnered with medium-sized infrastructure and engineering consultancy firms in India on niche infrastructure projects. It has also provided expertise and the technical knowhow to bring, develop and manage environmentally-friendly construction methods in India (Sinha, 2008).

The above examples highlight that New Zealand civil construction firms that are currently operating in these markets may not have had local knowledge or the funds to initiate operations when first entering these markets but have managed to secure work on the basis of the capabilities and expertise that they offer. Further the view of the target markets as economic partners has undergone a dramatic change in the last decade. The current New Zealand National government is hoping to sign a free trade agreement with India and is also making inroads towards a deeper economic partnership with Indonesia and Vietnam. Collaborative arrangements between New Zealand and local firms/governments can help develop a win-win relationship where both the parties can leverage the others competitive advantage. Examples such as Glidepath, BCS Group, Beca and Opus operating in markets like Malaysia, China, India, Indonesia and Vietnam, suggest that in many respects opportunities for New Zealand civil construction firms will come in the form of either collaborations or projects, enabling each partner to specialise in its strengths and augment its capabilities in other areas. Apart from this, such collaboration could give New Zealand firms direct access to other third markets in Asia, which may not be possible without local support from firms in the target markets. In addition, as success in these markets requires long-term engagement, alliances with local firms could help New Zealand firms further their presence in these economies.

## *2.4 Chapter Summary*

The points discussed in this chapter suggest that markets like China, India, Indonesia and Vietnam present substantial opportunities in the area of infrastructure development. Many foreign civil construction firms have a comparative as well as a competitive advantage in the area, which makes them perfectly positioned to tap into the prospects offered by these four markets. As discussed in this chapter, infrastructure is at the forefront for local governments in these markets and investments required for further development may be beyond the financial capability of most local businesses and governments. Foreign expertise to further develop infrastructure facilities is well regarded by both the governments and local businesses in these markets. The examples discussed in this chapter suggest that foreign civil construction firms (including New Zealand civil construction firms) that have already recognised the potential that these markets hold and are actively pursuing operations with the help of local partners. While a few New Zealand civil construction firms have been proactive in pursuing opportunities in the target markets, engagement from the New Zealand civil construction sector is fairly limited. Reasons for this limited engagement are not well documented in the current literature that analyses the internationalisation of New Zealand firms. Accordingly, the aim of the next chapter is to present key theories that will help understand the reasons (what) and patterns (how) of internationalisation. Chapter 3 discusses five theories: The OLI framework, The Resource Based View (RBV), Mathews LLL Model, International Entrepreneurship and The Uppsala Model. The internationalisation strategy of small and medium sized enterprises (SMEs) is considered in the context of the concepts proposed by the five theories. The concepts discussed in these theories also help develop the two research questions of this study.

## *Chapter 3 Theories of Internationalisation*

### *3.1 Introduction*

There is a vast amount of research in the field of international business explaining different facets of firm internationalisation. Traditional explanations of international firm behaviour are rooted in economics and often use frameworks to explain the process of internationalisation from an asset exploitation perspective. These frameworks are characterised by a range of theoretical perspectives - from mainstream economic theories (Vernon, 1966; Kindleberger, 1969; Caves, 1971, 1982; Hymer, 1976) and internalisation models (Buckley & Casson, 1976; 1985; Casson, 1982; Rugman, 1980) to the Uppsala Model (Johanson & Vahlne, 1977), the Investment Development Path Approach (Dunning, 1980) the Eclectic Paradigm (Dunning, 1988(a), 1988(b)), Mathews LLL Model (2002; 2006) Network Theory (Johanson & Mattson, 1987), the Resource Based View (Barney, 1991), International Entrepreneurship (Oviatt & McDougall, 1994) and the Knowledge Based View (Grant, 1996) to mention a few. The first research question of this study aims to analyse how firm-specific advantages help New Zealand civil construction and engineering firms determine the internationalisation of their operations. The ability of a firm to succeed in an international setting is determined by its firm-specific advantages and resources. Firm-specific advantages also help it attain a competitive advantage in foreign market. Amongst other theories, the OLI Framework and the RBV offer the most comprehensive explanations on how firm-specific advantages and resources (e.g. capital and labour) determine a firm's ability to internationalise and assist the firm in attaining a competitive advantage especially in international markets. Hence in order to answer the first question of this study, this research discusses the OLI Framework and the RBV. The aim here is to use the concepts discussed in these theories to understand whether firm-specific advantages assist New Zealand civil construction firms in internationalising their operations.

In addition to resources and firm-specific capabilities, the nature and pace of a firm's internationalisation is often influenced by location of the foreign market (e.g. geographic and psychic distance), nature of the industry and other external environmental variables (e.g. market and institutional factors), as well as by firm-specific factors (e.g. level of international experience, attitude of the management towards internationalisation). These factors play an important role in determining the strategies that a firm is likely to deploy in order to overcome barriers that may stem from lack of market knowledge, international experience and geographic and psychic distance from foreign markets. Amongst other theories, Mathews LLL Model, International Entrepreneurship and the Uppsala Model in particular offer explanations on how

firms develop effective strategies overcome possible barriers to internationalisation. Accordingly, as the second research question of this study aims to understand the barriers that New Zealand civil construction firms are likely to identify with when considering international operations, the study uses the concepts discussed in the Uppsala Model, Mathews LLL Model and International Entrepreneurship. The aim here is to evaluate the potential barriers that New Zealand civil construction firms identify with and the strategies that they use to overcome those. Also, the five theories discussed in this chapter analyse “how” and “why” firms internationalise, which make them relevant for this study.

International business theorists argue that excessive attention is paid to the merits of competing theories and models rather than to their potential complementarities to help understand the internationalisation of SMEs (Bell & Young, 1998; Coviello & McAuley, 1999). Coviello and McAuley (1999) further add that internationalisation of SMEs is best understood by integrating concepts from major theoretical frameworks. It is for this reason that this study uses five different theoretical frameworks to best analyse and understand the internationalisation of New Zealand civil construction firms. (Justification for using five theories in this study)

The layout of the chapter is as follows. The chapter starts by examining the main concepts proposed under the OLI framework. The OLI framework assists in answering the first research question of this study as it helps in understanding the nature of ownership advantages especially in a low-technology intensity sector such as construction. In particular the section discusses whether the competitiveness of a firm particularly in an international setting is governed by the type and level of firm-specific advantages that a firm possesses. The chapter then moves on to discuss the RBV. This framework is structured around the concepts of value, rarity, imitability and organisation of resources and argues that a firm's competitiveness in an international setting depends on the value, rarity and uniqueness of its resources and capabilities. This aspect holds to be true for New Zealand firms that have managed to capitalise on their niche capabilities to succeed internationally (e.g. dairy and biotechnology). Though the Eclectic Paradigm and RBV are well-established theories, these frameworks are criticised for their generalisability. These theories suggest that a firm must have the firm-specific advantages and resources in order to consider internationalisation. Following a discussion on the OLI framework and the RBV, the section concludes by presenting the first research question of this study.

Critiques of the OLI framework and RBV argue that SMEs often compete in international markets without initial resources, firm-specific advantages and knowledge of operating in an



international setting and at times without proximity to major markets (Buckley et.al. 2007; Deng, 2007; Luo & Tung, 2007). Given that most New Zealand firms are small-medium size enterprises, New Zealand firms may struggle to accumulate the requisite resources necessary for successful internationalisation. For this reason this study also draws on Mathews LLL Model (2002; 2006) and International Entrepreneurship (Oviatt & McDougall, 1994). Accordingly, the third theory that this chapter discusses is Mathews LLL model. This model is based on the idea that the internationalisation of firms is not necessarily built on the possession of assets, but rather on a firm's ability to leverage its capability in organisational learning. Although the focus of the LLL model is to primarily understand the internationalisation of emerging market firms, it can also be applied to firms that are classified as latecomers; therefore it is applicable to New Zealand civil construction firms. In particular the discussion in this section focuses on the importance of linkage, leverage and learning for SMEs that consider international operations. This theory is used to answer the second research question of this study. In particular Mathews LLL model helps understand how SMEs rely on networking and leverage from those linkages to gain knowledge that ultimately help them succeed in a given foreign market. Similarly this study also draws upon International Entrepreneurship. Amongst other aspects addressed, this theory in particular helps understand how the characteristics of a firm's management, such as attitudes and motivation to internationalise, influence the internationalisation of a firm. This aspect of International Entrepreneurship is particularly relevant for this study, as it is important to understand the management orientation of New Zealand civil construction firms towards internationalising their operations in the target markets.

Lastly, the Uppsala Model, which offers a process view of internationalisation is discussed. Small size and limited resources (such as capital and labour) means that most New Zealand firms are likely to internationalise by exporting and gradually increase their commitment to a given foreign market by establishing a presence with the help of agents or local partners. This aspect is supported by the Uppsala Model which suggests that firms follow an establishment chain when internationalising (Johanson & Vahlne, 1977). The Uppsala Model also suggests that internationalisation of a firm frequently starts in markets that are close in terms of psychic distance to the home country. This aspect is particularly true for New Zealand firms. A study by Chetty and Hamilton (1996) for example, suggests that New Zealand firms concentrate on operating in markets such as Australia and the UK, which are close to New Zealand in terms of psychic distance. For this reason the study discusses the Uppsala model as it may help

understand the internationalisation pattern followed by New Zealand civil construction firms. Also the Uppsala Model discusses the impact of factors such as experiential knowledge and networking on a firm's ability to internationalise. Following the discussion on the three theories, the section concludes by presenting the second research question of this study.

The contributions of these five theories is fundamental to this study as these frameworks assist in developing and answering the research questions investigated in this research. In particular these theories help explain two aspects critical to this research: a) the necessary conditions for successful internationalisation and b) possible barriers that may constraint a firm from internationalising. The research questions are discussed in sections 3.2.1.3 and 3.2.5 of this chapter. Section 3.3 presents the research propositions of this study and section 3.4 concludes the discussion by summarising the key points outlined in this chapter.

### ***3.2 Literature Review - A Discussion of Relevant Theories***

The OLI Framework Mathews LLL Model and International Entrepreneurship discussed in this chapter represent different views on the reasons for a firm to internationalise (i.e. why), while RBV provides a theoretical framework for describing and explaining the relationship between a firm's resources and its ability to attain competitive advantage. Lastly the chapter presents a discussion on the Uppsala Model which analyses how firms internationalise. A brief summary of the main concepts are covered in table 3.1 below.

**Table 3.1 Complementary Factors across Theories**

<i>Factors</i>	<i>OLI Framework</i>	<i>RBV</i>	<i>LLL Model</i>	<i>International Entrepreneurship</i>	<i>Uppsala Model</i>
Process of Internationalisation	Firms internalise with the intent to exploit FSA's	Dependent on resources/capabilities	Dependent on networking – linkages	Firms have an international perspective from or near inception	Gradual Process – Starting close to domestic market
Reasons for Internationalisation	To exploit ownership, location or internalisation advantages	Exploit resources and capabilities + gain sustained competitive advantage.	Firms internationalise in pursuit of resources	Firms internationalise in pursuit of resources and to exploit ownership advantages	Not addressed
Geographic Focus	Markets chosen on location advantages	Not addressed	Markets seen as international network of firms	Markets chosen on the basis of opportunities	Markets close in proximity
Competence of the firm when internationalising	Mature and experienced	Not addressed	Mature, but inexperienced as firms tend to internationalise later in their life-cycle (i.e. latecomers)	Limited, infant. Firms tend to internationalise at an early stage in their life-cycle (i.e. born global firms)	Limited hence a step by step process
Creation vs. Acquisition	Proposes that firms internalise their operations to maintain competitive advantage	Proposes that possession of resources/capabilities can help attain a sustained competitive advantage	Proposes that firms acquire resources through strategic partnerships	Proposes that firms may not always possess resources and seek to acquire those through networking	Assumes that firms internalise or acquire resources
Importance of Experiential Learning	Not addressed	Not addressed	Learning is key to operating in an international setting	Firm develops knowledge as a result of experiential learning.	Experiential learning critical for successful international operations
Level of Risk	High	Not addressed	High	High	High

Potential constraints identified	Impact of Physic /Geographic Distance	Not addressed	Lack of resources, firm size, limited international experience	Lack of resources, firm size, lack of international experience	Impact of Physic/Geographic Distance Level of Experiential Knowledge
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### *3.2.1 The OLI Framework and the Resource Based View*

#### *3.2.1.1 The OLI Framework*

The OLI Framework (also known as the eclectic paradigm) was first proposed by Dunning in 1977. It has proved to be an extremely useful framework that helps understand the operations of multinational enterprises (MNEs) and has inspired a great deal of applied work in economics and international business (Cantwell & Narula, 2010; Eliot, Keith & Steve, 1999). In itself it does not constitute a formal theory that can be confronted with data in a scientific way; however it provides a valuable framework to help understand the patterns of international production (Eliot, Keith & Steve, 1999). The intention of this framework is to offer a holistic view by which it is possible to identify and evaluate the significance of factors influencing both the initial act of foreign production by firms and growth of such production (Dunning, 1980; Eliot, Keith & Steve, 1999). The choice of the word eclectic is deliberate. It conveys the idea that a full explanation of the transnational activities of firms needs to draw upon several strands of economic and trade theory as well as foreign direct investment (FDI) as just one of a number of possible channels for the international expansion of a firm (Eliot, Keith & Steve, 1999). The main contribution of this framework is that it brings different elements that may influence internationalisation of a firm within a single paradigm.

The principal hypothesis of the eclectic paradigm of international production is that the level and structure of a firm's foreign value adding activities will depend on three conditions being satisfied. Accordingly the framework proposes three factors that may encourage a firm to undertake international operations: Ownership Advantages (O) Locational Advantages (L) and Internalisation Advantages (I). The framework asserts that the international production of a firm is determined by the configuration of firm-specific advantages (ownership), comparative advantages existing at the host country level (location) and the advantages attained by generating assets internally rather than obtaining them from the foreign market (internalisation) (Dunning, 1980, 1981, 1988 (a)). In other words, in the eclectic paradigm it is contended that firms have competitive or 'Ownership' advantages vis-à-vis their major rivals, which they utilise in establishing production in sites that are attractive due to overseas 'Location' advantages (Dunning, 1977, 1980, 1988 (b); Cantwell & Narula, 2010). According to Dunning (1980), there are two types of competitive advantages; the first is attributable to the ownership of particular unique intangible assets (such as firm-specific technology), and the second is due to the ownership of complementary assets (such as the ability to create new technologies, or the ability to coordinate cross-border activities effectively) (Dunning, 1980; Cantwell &

Narula, 2010). These advantages and the use of them are assumed to increase the wealth creating capacity of a firm hence the value of its assets.

Assuming that condition one (i.e. O) is satisfied, the extent to which the firms perceives it to be in its best interests to add value to its “O” advantages rather than sell them or its right of use to independent foreign firms is an internalisation advantage (Dunning, 1980). A firm retains control over its networks of assets (productive, commercial, financial and so forth) because of the ‘internalisation’ advantages of doing so (Dunning, 1980). Internalisation advantages arise both from the greater ease with which an integrated firm is able to appropriate a full return on its ownership of distinctive assets, as well as directly from the coordination of the use of complementary assets, subject to the costs of managing a more complex network (Dunning, 1977; 1980). Assuming that condition one and two (i.e. O and I) are met, the extent to which the global interests of the MNEs are served by creating, accessing or utilising its “O” and “I” advantages in a foreign market determines “Locational” advantages of that foreign market (Dunning & Lundan, 2008). Locational advantages are relative advantages that a host country offers in comparison to a firm’s home market. These relative advantages indicate why a firm would choose to expand in that market. Countries would normally seek to attract FDI as a means of improving their location advantages (and consequently the ownership advantages of local firms) through spill overs and linkages due to MNE activity in their country (Cantwell & Narula, 2010). However, the quality and extent of the externalities due to MNE activities depends on the motivation of a firm’s investment in a foreign market and the absorptive capacity of the host country firm (Narula & Dunning, 2000). This point is further discussed in the following section.

#### **3.2.1.1.1 Reasons to undertake FDI**

There are four primary reasons for a firm to internationalise its operations. According to Dunning & Lundan (2008) a firm seeks to internationalise its operations:

- a) To source resources from a foreign market (resource seeking FDI)
- b) To expand its business to new markets (market seeking FDI)
- c) To improve its economies of scale and reduce risk (efficiency seeking FDI)
- d) To acquire assets from firms in foreign markets (strategic asset seeking FDI)

**Natural Resource Seekers:** These firms are motivated to invest abroad to acquire particular and specific resources of a higher quality at a lower cost than could be obtained in their home country. The motivation for the FDI is to make the investing enterprise more profitable and competitive in the markets it serves (or intends to serve) than it would be otherwise be (Dunning & Lundan, 2008). There are three main types of natural resource seekers: firms that seek physical resources (such as minerals, raw materials), firms that seek skilled or unskilled labour, and finally, firms that seek to acquire technological ability, management or marketing expertise and organisational skills (Dunning & Lundan, 2008).

**Market Seekers:** These are firms that invest in a particular country or region to supply goods or services to markets in these or adjacent countries. In some cases part or all of these markets will have been serviced previously by exports from the investing company. Market seeking FDI may be undertaken to sustain or protect existing markets or to exploit or promote new markets (Dunning & Lundan, 2008). Apart from market size and the prospects for market growth there are four main reasons which prompt firms to engage in either sorts of market-seeking investment. The first is that their main suppliers and customers have set up foreign production facilities and the firm follow them into that market to retain business. Second is where products need to be adapted to local tastes and preferences and to native resources and capabilities. A third reason for serving a local market from an adjacent facility is that the production and transaction costs of doing so are less than supplying it from a distance. Understandably, this decision will be activity and country specific (Dunning & Lundan, 2008).

In some cases government regulations, import control or strategic trade policy may prompt firms to relocate their production facilities to foreign markets. This point is particularly true for emerging economies like Brazil, Russia, India and China as the governments of these countries have created Special Economic Zones (SEZs) with the intention of attracting foreign investment. Amongst other incentives, the government of India for example, provides 100



percent Income Tax exemption on export income for SEZ units for the first five years and 50 percent for the next five years thereafter and 50 percent of ploughed back export profit for the next five years (Government of India, 2009). The government also allows external commercial borrowing by SEZ units up to US\$500 million in a year without any restriction through recognised banking channels (Government of India, 2009). Such incentives make the market (in this case India) an attractive destination for foreign firms to invest. The final and increasingly important reason for market seeking investment is that a firm may consider it necessary as part of its global production and marketing strategy, to have a physical presence in leading markets that are served by its competitors (Dunning & Lundan, 2008).

***Efficiency Seekers:*** The motivation for efficiency seeking FDI is to rationalise the structure of established resource based market seeking investment in such a way that the investing firm can gain from the common governance of geographically dispersed activities (Dunning, 1980). Such benefits are essentially those of economies of scale and scope of risk diversification. The intention of efficiency seeking firms is to take advantage of different factor endowments, cultures, institutional arrangements, demand patterns, economic policies and market structures by concentrating production in a limited number of locations to supply multiple markets (Dunning & Lundan, 2008).

***Strategic Asset Seekers:*** The fourth group of firms comprise those that engage in FDI usually by acquiring the assets of foreign corporations to promote their long-term strategic objectives – especially those related to sustaining or advancing their global competitiveness. The investing firms involved include both established MNE's pursuing an integrated global or regional strategy and first-time foreign direct investors seeking to access or to buy some kind of competitive strength in an unfamiliar market (Dunning, 1980; Dunning & Lundan, 2008). The motive for strategic asset seeking investment is less to exploit specific cost or marketing advantages over their competitors and more to augment the acquiring firm's global portfolio of physical assets and human competences which will either sustain or strengthen their ownership specific advantages or weaken those of their competitors (Dunning & Lundan, 2008). This facet is closely linked to SMEs as most of these firms internationalise with the intent to augment their resources through strategic alliances. Like efficiency seeking MNEs, the strategic asset acquirer aims to capitalise on the benefits of the common ownership of diversified activities and capabilities or of similar activities and capabilities in a diverse economic environment (Dunning & Lundan, 2008).

The eclectic paradigm further states that the significance of each of the OLI advantages and the configuration between them is likely to be context specific, and in particular, is likely to vary across industries (or types of value-added activities), regions or countries (the geographical dimension) and among firms (Enderwick, 1989). For example, there are likely to be country-specific differences in the ownership advantages of New Zealand civil construction firms compared to civil construction firms from, for example, the US or Italy. Also the extent of market failure experienced by a firm in a foreign market is likely to be dependent on the types of products or services it tends to offer as well as the nature of the industry that the firm operates in (Dunning, 2001). Finally, the relationship with the comparative locational advantages of foreign markets may be regarded differently by different firms depending on the strategies that the firm wishes to pursue in those markets. For example, the comparative locational advantages of Thailand and Taiwan as a manufacturing base for automobiles may be regarded differently by (say) Toyota than (say) the Honda Corporation (Dunning, 2001).

The OLI model also suggests that firms usually internalise their operations in order to maintain their competitiveness in a foreign market. This would mean that larger firms would generally opt for equity modes compared to SMEs which are more likely to choose non-equity modes when internationalising (Enderwick, 1989). This is perhaps because compared to large firms; SMEs may not always have the resources to undertake FDI that allows internalisation of its activities in a foreign market. However, even among SMEs, firm size and resource availability may differ sharply (Osborne, 1996). For example, there is likely to be a big difference in resources available for international entry between a small company that has 10 employees and a medium-sized enterprise that may have 400 employees. Normally, a medium-sized enterprise would possess greater managerial and financial resources and thus have a greater ownership advantage than would smaller firms (Osborne, 1996). According to Osborne's (1996) research, larger New Zealand SMEs tended to prefer equity modes of entry while smaller SMEs tended to prefer non-equity modes when internationalising. Although this is true for most firms, the widespread use of non-equity modes of international involvement as well as the difficulties of defining outputs in cross-border situations is typical of construction firms (Enderwick, 1989; Seymour, 1987; Rashid & Aziz, 1995). Also, identification of ownership advantages in the construction sector plays a crucial role as firms in the construction sector are low in technology intensity. In addition to niche capabilities, firms in a multidomestic industry such as construction, tend to rely on intangible assets such reputation, brand and experience (Dowling, Festing & Engle, 2013; Seymour, 1989; Rashid & Aziz, 1995). Given that it is difficult to

identify ownership advantages in construction firms, it is difficult to apply the eclectic paradigm to the main determinants of service sector internationalisation. (*Application to service firms*). Nevertheless, the OLI framework is very relevant for this study as it helps understand the role that ownership advantages play in influencing a firm's internationalisation. (*Justification for using OLI framework*). Having discussed the OLI Framework, the next section presents a discussion on the Resource Based View (RBV).

### *3.2.1.2 Resource Based View (RBV)*

Like the OLI framework, the Resource Based View (RBV) concentrates on the ownership advantages of a firm. Understanding sources of sustained competitive advantages for firms has been long a major area of research in the field of strategic management (Porter, 1985, 2008; Rumelt, 1984). Since the 1960's a single organising framework has been used to structure much of this research (Andrews, 1971; Ansoff, 1965; Hofer & Schendel, 1978). This framework suggests that firms obtain sustained competitive advantages by implementing strategies that exploit their internal strengths, through responding to environmental opportunities, while neutralising external threats and avoiding internal weakness. Most research on sources of sustained competitive advantage has focused either on isolating a firm's opportunities and threats (Porter, 1980, 1985) describing its strengths and weaknesses (Hofer & Schendel, 1978; Penrose, 1959; Stinchcombe, 1965) or analysing how these are matched to choose operational strategies. Although both internal analysis of organisational strengths and weakness and external analysis of opportunities and threats have received some attention in the literature, most work has focused primarily on analysing a firm's opportunities and threats in its competitive environment (Lamb, 1984). As exemplified by research done by Porter and colleagues (Caves & Porter 1977; Porter, 1980, 1985) this work has attempted to describe the environmental conditions that favour high levels of firm performance.

Porter's (1980) "five forces model" for example, describes the attributes of an attractive industry and thus suggests that opportunities will be greater and threats less in such industries. To help focus the analysis of the impact of a firm's environment on its competitive position, much of this type of strategic research has placed little emphasis on the impact of idiosyncratic firm attributes on a firm's competitive position (Porter, 1991). Implicitly, this work has adopted two simplifying assumptions. First, these models of competitive advantage assume that firms within an industry (or firms within a strategic group) are identical in terms of relevant resources and have similar operational strategies (Porter, 1981; Rumelt, 1984; Scherer, 1980). Second, these models assume that should resource heterogeneity develop in an industry or group

(perhaps through new entry) such heterogeneity will be very short lived because the resources that firms use to implement their strategies are highly mobile, that is they can be bought and sold in factor markets (Barney, 1986; Hirshleifer, 1980).

There is little doubt that these two assumptions have been very fruitful in clarifying our understanding of the impact of a firm's environment on performance. The RBV substitutes these two alternate assumptions in analysing sources of competitive advantage. First, building on Penrose's (1959) work, this work assumes that firms are bundles of productive resources and different firms possess diverse bundles of resources. This is the assumption of firm resource heterogeneity. Second, drawing from the work of Selznick (1984) and Ricardo (1817), this approach assumes that some of these resources are either very costly to copy or inelastic in supply. This is the assumption of resource immobility. If the resources a firm possesses enable the firm to exploit opportunities or neutralise threats they can be a source of sustainable competitive advantage. Similarly, if certain resources are possessed by only a very small number of competing firms and if they are costly to imitate or inelastic in supply, they too can become a source of strength and act as competitive advantage (Barney, 1991, 1996; Penrose, 1959; Rumelt, 1984; Wernerfelt, 1984, 1989).

The definition of a firm's resources and capabilities and the two assumptions of resource heterogeneity and resource immobility are quite abstract and are not directly amenable to the analysis of a firm's strengths and weaknesses. Nevertheless, it is possible to develop a framework based on this definition and on these two assumptions, which is more generally applicable. One such framework is the resource based view first proposed by Barney (1991). The Resource Based View of the firm (RBV) is an established theoretical framework that explains the relationship between a firm's resources and its ability to develop competitive advantage (Barney, 1991, 1996, 2011).

According to the RBV, resources of a firm include firm-specific assets (tangible and intangible), capabilities, information, knowledge and organisational processes. These resources play a critical role in determining how a firm is able to formulate strategies to effectively develop a competitive advantage (Barney, 2011). The idea here is that a firm's portfolio of both complementary and specialised resources allows a firm to respond to opportunities by exploiting its internal strengths and reduce the effect of external threats. In doing so a firm is able to generate economic rents (Amit & Schoemaker, 1993). Resources and capabilities that enable a firm to develop, select, and implement value-enhancing strategies that can help it gain

above-normal economic returns is termed as rent seeking behaviour (Conner & Prahalad, 1996; Lado et al., 1997).

The RBV states that, the source of competitive advantage for a firm is ownership of, or access to, a bundle of resources that are both immobile or imperfectly mobile and heterogeneous in nature (Barney, 2011). Resources are considered immobile in two cases a) if the resources of a given firm are distinctive in nature or b) if the intellectual property rights of resources are not clearly defined. Similarly, if strategic resources differ between firms, then those resources are considered to be heterogeneous in nature. Barney (1991) further adds that in order to develop and sustain a competitive advantage, a firm's resources must have the following attributes:

- (a) A firm's resources are *valuable* that is, they have the ability to allow the firm to exploit opportunities or neutralise threats,
- (b) A firm's resources are *rare* among the firm's current and potential competitors,
- (c) A firm's resources are *inimitable* so that they cannot easily be replicated by other firms
- (d) A firm's resources are *non-substitutable* by alternative strategically-equivalent resources (Barney, 1991, 1996).

These attributes serve as empirical indicators of the heterogeneity and immobility of a firm's resources and can help a firm in determining their effectiveness to generate a sustained competitive advantage (Barney, 1991; 2011). When applying RBV to service based firms, such as construction, supporters of RBV claim that the superior intangible assets such as capabilities, knowledge and reputation are a major source of competitive advantage for service based firms. In addition, tangible assets such as human resource are also a critical source of competitive advantage for service firms (Hitt et.al, 2006; Kraaijenbrink, Spender & Groen, 2010; Peteraf, 1993). Indeed the skills and the knowledge of the personnel play a critical role in determining the success of construction firms especially in an international setting (Ng et.al, 2001) (*Application to service firms*).

The RBV emphasises that resources and capabilities, either complementary or unique, are vital for a firm. In other words, a firm's ownership advantages can help a firm make strategic choices when operating in an international market and can therefore influence the performance of the firm in that location. The value and amount of resources can help a firm devise its strategies to expand its operations in a foreign market (Barney, 1996). Hence the theory assumes that if the

resources are limited in their availability this may restrict the strategic options available to the firm considering international expansion. Although this aspect is true for any firm, it is particularly relevant for SMEs as often they lack sufficient resources to successfully operate in a foreign market. SMEs either need to have sufficient resources to internationalise, or the firm should be able to source resources from strategic partnerships in a foreign market.

Although the RBV is an established theory, it is not without limitations. Firstly, the theory assumes that a firm has the required resources to develop and sustain a competitive advantage. However this may not be true for all the firms. SMEs, for example, may not always have the necessary resources to develop a sustained competitive advantage especially in an international environment (Gulati, 1999). Secondly, although the RBV has been revised to incorporate the network perspective, the theory only partially addresses the possibility of a firm being able to source necessary resources by developing strategic alliances or networks (Arya & Lin, 2007; Dyer & Singh, 1998; Lavie, 2006). Thirdly, the theory is also criticised for its limited applicability (Kraaijenbrink, Spender & Groen, 2010). For example, Connor (2002) argues that the RBV mostly applies only to large firms that enjoy significant market power. Although, the RBV is used to explain the internationalisation behaviour of SMEs but the role of fundamental capabilities such as networking capability and aspects like entrepreneurial orientation of the firm is not taken into consideration (Connor, 2002). The competitive advantage of SMEs especially in an international context, cannot be based on their static resources as these firms often form strategic alliances particularly when internationalising and may acquire new resources as a result of those alliances (Connor, 2002). Despite the criticism, RBV serves as a useful theory as it helps analyse how specific resources help a firm in developing sustained competitive advantage hence is useful for this study. (*Justification for using RBV*)

### **3.2.1.3 Research Context: Research Question 1**

One of the main aspects that can be drawn from both the OLI framework and the RBV is that firm specific advantages play a critical role in determining the ability of a firm to internationalise its operations. The notion of comparative advantage suggests that a country will produce goods and services that reflect its relative abundance of capital or labour (Seymour, 1987). A country that is abundant in capital will produce capital intensive goods and services, while a country that has abundant labour will produce labour intensive goods and services (Seymour, 1987). In other words, tangible assets such as firm specific capabilities and resources (human resource and capital), are more reflective home market conditions (Dunning, 1988). As for firms in other sectors, this aspect holds to be true for civil construction firms as

well. For example U.S. contractors have specialist skills in technology based process applications, where as Japanese contractors have built their expertise in long distance tunnelling, clean technology and industrial and plant development. This capability is based on know-how gathered in the domestic market. Also, these firms benefit from a well-developed domestic capability in production of steel and construction (Enderwick, 1989).

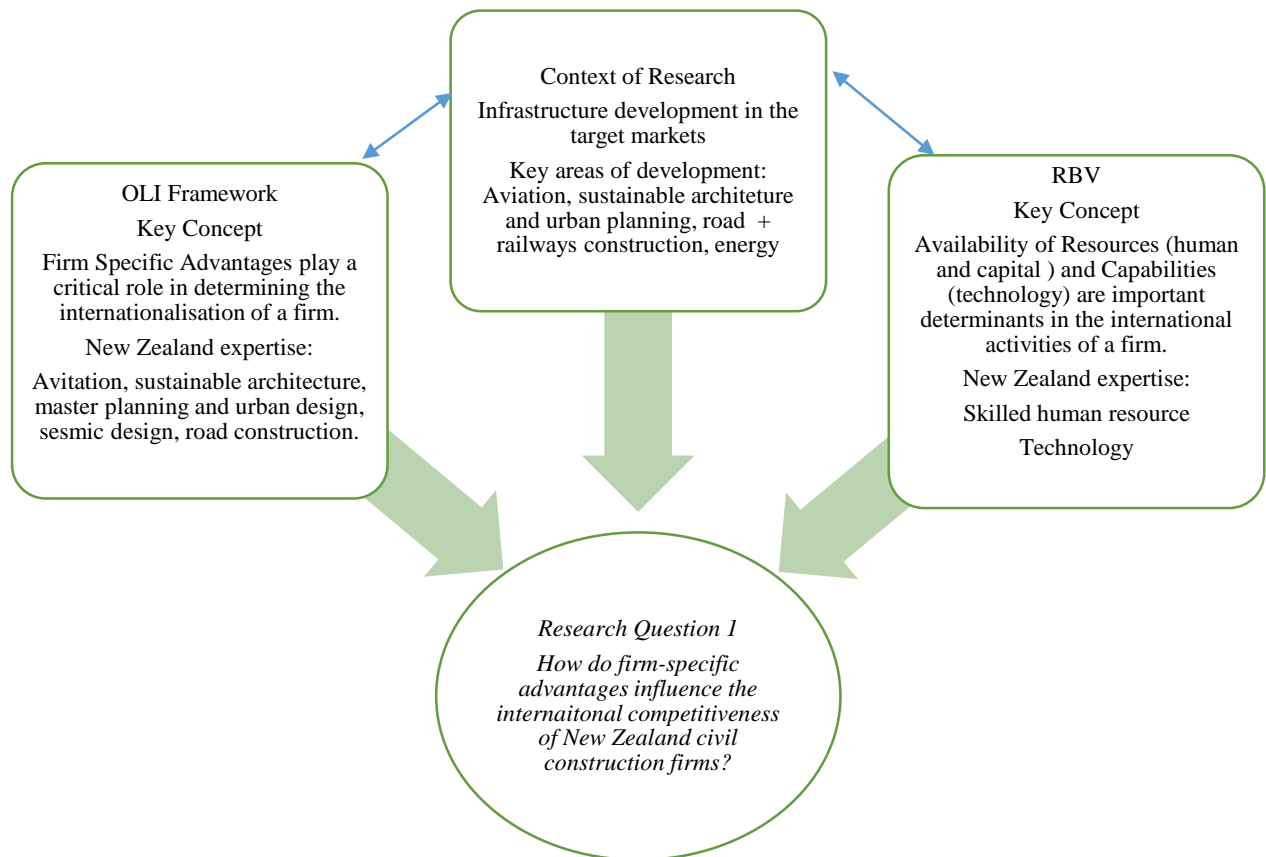
In addition to technical expertise, a major resource in international construction is human capital. This comparative advantage is likely to be reflected in the nature and skills of the labour depending on the nationality of the firm. For example, in case of South Korean firms, ready access to a pool of cheap skilled and semi-skilled labour has given its construction firms an advantage when competing internationally (Seymour, 1987). South Korean firms are also well-known for their policy of exporting personnel necessary for construction projects from the home country to take advantage of their relatively low wage rates and reduce their labour costs in foreign markets. Also, given the complexity of construction projects civil construction firms often need to co-ordinate different categories of human resource skills (Ng et. al, 2001). Additionally, aspects such as name, reputation, knowledge and experience are major firm-specific advantages for civil construction firms. This is because unlike goods, services do not always consist of physical attributes that can be evaluated.

As discussed in Chapter 2, New Zealand civil construction firms have developed capabilities in the area of earthquake engineering, seismic design, renewable energy applications (especially in the area of geothermal and wind energy technologies). New Zealand civil construction firms are also well regarded for their ecologically sustainable architecture, master planning and urban design. In addition to this, the aviation sector of New Zealand enjoys considerable international recognition especially in the areas of baggage and cargo handling, air control solutions, technical training and airport security software. Continuing high rates of economic growth within the emerging markets coupled with rising levels of urbanisation has created massive demand for new infrastructure in markets like China, India, Indonesia and Vietnam (target markets). The governments in the target markets hope to make significant improvements in both existing, and new infrastructure across the key sub-sectors of Roads, Railways, Energy and Airports, areas where New Zealand civil construction firms have significant expertise. Although local civil construction firms in the target markets are currently working alongside their governments to help develop and maintain new and existing infrastructure facilities, the sheer amount of investment required is well beyond the resources

and capabilities of most local firms. In light of these developments, the governments of these countries have opened the sector to foreign investment.

As discussed earlier in the study a select number of New Zealand civil construction firms have been early in recognising opportunities in the target markets. Glidepath and the BCS Group serve as prime examples of New Zealand firms that have been successful in offering services in the area of baggage and cargo handling to a number of airports in markets including China, India and Malaysia. Both Glidepath and BCS were recognised for their creative offerings and successfully partnered with the local government authorities to service these markets. Further New Zealand engineering consultancy firms like BECA and Opus are also acknowledged for their services in area of building and structural engineering in China, India and Indonesia. Additionally, the personnel of New Zealand civil construction firms are also well-regarded in these markets for their skills and expertise, especially in the area of transport and energy infrastructure. The points discussed in this section suggest that firm-specific advantages have played an important role in determining the ability of a select few New Zealand civil construction firms to internationalise. However, despite the reputation, international engagement from the New Zealand civil construction sub-sector is limited. Reasons for this limited engagement is not well recorded in the current literature that analyses the internationalisation of New Zealand firms.





Hence in order to understand the reasons for limited international engagement, it is important to first analyse if firm-specific advantages play an important role in determining the international competitiveness of firms in the New Zealand civil construction sub-sector. The points discussed in this section lead this study to its first research question:

*Research Question 1: How do firm-specific advantages influence the international competitiveness of New Zealand civil construction firms?*

*The above research question is divided into four sub-questions:*

- 1.1 What role do firm-specific capabilities play in the successful internationalisation of New Zealand civil construction firms?*
- 1.2 How do firm-specific resources (namely capital and human resource) impact the internationalisation strategy of New Zealand civil construction firms?*
- 1.3 What role do networks play in assisting New Zealand civil construction in overcoming resource and market knowledge constraints in the target markets?*
- 1.4 How does firm-size effect the ability of New Zealand civil construction firms to develop and sustain a competitive advantage in an international setting?*

The study draws upon the concepts discussed in both the OLI framework and the RBV to analyse whether firm-specific capabilities and resources influence the international competitiveness of New Zealand civil construction firms. More specifically, the above research questions seek to analyse factors that determine successful market participation by New Zealand civil construction firms in the target markets.

#### *3.2.1.4 Drawbacks of OLI and RBV*

The points discussed in the above section highlighted the importance of the OLI framework and the RBV in understanding how firm specific capabilities and resources encourage a firm to consider international operations. It also discussed the main motives for a firm to pursue investments in a foreign market. It can be stated that the OLI framework is best regarded as one for analysing the determinants of international production rather than as a predictive theory of MNE *qua* MNE. Although the eclectic paradigm is an established and well-regarded framework of internationalisation, some theorists believe that the paradigm has only limited power in interpreting the internationalisation paths of latecomer MNEs as they lack the kind of advantages that the OLI framework emphasises as a pre-requisite for internationalisation (Buckley et.al. 2007; Deng, 2007; Luo & Tung, 2007). As discussed in this chapter, a bedrock principle of the OLI framework is that to become an MNE, a firm must possess significant ‘ownership advantages’ that can offset its disadvantages in competing abroad. Accordingly, it is assumed that a firm is most likely to adapt strategies which will help it exploit its assets (ownership advantages) in a foreign market.

The RBV offers a simple explanation of how a firm can attain a competitive advantage. Similar to the eclectic paradigm, the theory assumes that the firm is able to develop firm-specific advantages in its domestic market (Buckley et.al, 2007). However capitalising on ownership advantages may not always be possible for all firms (Buckley et.al, 2007). Compared to large firms, SMEs for example tend to have far fewer managerial and financial resources that may be required to build requisite competitive (ownership) advantages for a foreign market (Connor, 2002; Deng, 2007). Hence SMEs are often not in a position to make the investments needed to develop and exploit ownership advantages in a foreign market compared to larger firms (Deng, 2007). As a result, SMEs may build strategic partnerships with the aim of developing resource capability (or ownership advantage) for a foreign market (Deng, 2007; Luo & Tung, 2007). Hence the internationalisation of SMEs is not captured well by using the theoretical lens presented by the eclectic paradigm and the RBV (Connor, 2002; Buckley et.al, 2007; Deng, 2007). Therefore it can be stated that SMEs often engage in asset-seeking rather

than asset-exploiting FDI. It for this reason, the study also draws upon Mathews LLL model and International Entrepreneurship. Further, aspects like physic distance, experiential knowledge and incremental internationalisation are not addressed by the OLI framework and the RBV. Hence the study also discusses the Uppsala Model as this theory offers insights on the above mentioned factors.

### *3.2.2 Mathews LLL Model*

Mathews LLL model is seen as complementary to the OLI framework. The LLL model, also a strategic framework, is based on the idea that the internationalisation of firms is not necessarily founded on the possession of overwhelming assets, but rather on a firm's ability to leverage its capability in organisational learning. One of the main differences between the LLL Model and the traditional theories of internationalisation such as the OLI framework is that these approaches reflect the experiences of firms based largely in either Europe or the US and are based on firms that are relatively large and established in an international context. Also the focus of traditional theories is to analyse the barriers that may affect the entry of a firm in a foreign market. By contrast, the LLL model discusses how such barriers may be overcome (Mathews, 2006). Although the model mainly analyses the internationalisation of firms from emerging markets, it is also maybe applicable to New Zealand civil construction firms as, given their size, they may not possess sufficient resources and/or market knowledge when considering international operations. They may build strategic partnerships with potential foreign counterparts which allow them access to resources and market knowledge that they lack. Accordingly, this section of the chapter discusses Mathews LLL Model.

The LLL Model was first proposed by Mathews in 2002 and analyses how newcomer firms are able to challenge large established MNE's in the global economy. Often these challengers start small, lack key resources and are distant from major markets (Mathews 2002; 2006). These are firms that start from behind and overcome their deficiencies to emerge as industry leaders, in some cases within astonishingly short periods of time, and apparently, with limited firm specific advantages compared to the incumbent industry leaders. They do so with a restricted amount of resources, without skills or knowledge of operating in an international setting and in some cases without proximity to major markets (Mathews, 2002; 2006). Nevertheless they succeed in spite of these disadvantages by turning initial disabilities into sources of advantage through leapfrogging to advanced technological levels or by leveraging their way into new markets through partnerships and joint ventures (Mathews, 2006).

The LLL Model is based on the philosophy that firms internationalise not to exploit resources but in the pursuit of resources and thus extending existing theories and frameworks utilised in the international business literature. The model aims to discuss the process of internationalisation of firms that are classified either as latecomers or newcomers, that pursue international expansion in search of new resources compared to incumbents and that undertake international operations to acquire new assets (Peng, 2001). Accordingly it can be stated that

the considerations that apply to firms that contemplate international expansion in the pursuit of resources not otherwise available in their domestic market are quite different from those that apply to firms that consider international expansion in order to exploit existing resources (Peng, 2001; Mathews, 2006). Latecomer and newcomer firms often regard the world economy as an integrated web of inter-firm connections from the outset of their international operations (Mathews, 2006; Gattai, 2009). This aspect can be responsible for driving new approaches to and patterns of internationalisation which may not be acknowledged in prevailing theories of internationalisation.

Mathews (2002, 2006) argues that strategies based on networking and leveraging from those connections that are most likely to succeed in this interlinked global economy are precisely those likely to be pursued by firms which lack substantial prior resource bases while internationalising. In other words, latecomer and newcomer firms are most likely to pursue strategies that are based on networking and building strategic relationships with partner firms in foreign markets (Mathews, 2006). This approach to internationalisation is also applicable to small and medium sized firms. International expansion through strategies based on linkage, leverage and learning (accomplished through repeated applications of linkage and leverage) provides a point of contrast with some of the dominant frameworks utilised in international business. In terms of the RBV for example, latecomer and newcomer firms may be seen as evaluating resources strategically in ways very different from incumbents. It has been argued that latecomer or newcomer firms have everything to gain by tapping the resources of others, and that they internationalise explicitly with this goal. Similarly, Mathews states that incumbents see the world as full of competitors who are trying to imitate their success, while the latecomer and newcomer firms see the world as full of resources to be tapped, provided the appropriate complementary strategies and organisational forms can be devised (Mathews, 2006).

Latecomer, newcomer firms as well as SMEs may wish to evaluate resources in terms of their imitability and transferability whereas incumbents are said to view resources in terms of the converse characteristics, namely their inimitability and non-transferability. Similarly the widely adopted OLI framework, which characterises MNE advantages over domestic firms in terms of their ownership, locational and internalisation advantages is a framework that sees multinationals deriving advantages from their superior resources that they exploit abroad. However, latecomer and newcomer firms have very different perspectives. These firms normally look for ways to access needed resources specifically through linking up with source

firms abroad and internationalise in order to access the resources that they lack (Mathews, 2006). This model thus analyses the experience of latecomer and newcomer MNEs to argue that such firms should be seen as the portents of a new kind of multinational enterprise which is better adapted to the new conditions of the current global economy. It also generates a novel perspective on the process of globalisation itself.

#### *3.2.2.1 Linkage*

Linkage is an outward-oriented concept. It refers to the ways in which the firm may extend its influence into new markets or new businesses. In an international setting it refers to the capacity of the firm to extend into new cross-border activities via inter-firm relations. The denser these inter-firm connections the more opportunities there are for the firm to be drawn via such linkages into the international economy (Mathews, 2002). A critical starting point for the latecomer and newcomer firms is that they are not reliant on their own advantages but on the advantages which can be acquired externally. Hence, a global orientation becomes a source of competitive advantage since the opportunities through which these firms can expand are likely to be found in international markets rather than in its domestic environment. Accordingly, internationalisation becomes a necessity for the latecomer or newcomer firm. An outward orientation is often more risky and has higher uncertainties compared to a more conservative inward focus (Mathews, 2006).

A firm seeking to acquire resources and complementary assets in a foreign market has to overcome problems of market intelligence and uncertainty concerning the quality of knowledge potentially available to the firm. SMEs in particular have to find ways to offset these risks. Thus joint ventures, strategic alliances or other forms of collaborative partnerships as a means of gaining entry into a foreign market emerge as options. These linkages help a firm develop relationships with their potential partners. These relationships are seen by aspiring firms as principal vehicles for reducing risks involved in international expansion (Narula & Sadowski, 2002). Networks (linkages) therefore can be created with the aim of acquiring resources from potential partners. Linkages also can help SMEs reduce the level of risk and uncertainties that arise due to lack of market knowledge.

### *3.2.2.2 Leverage*

If the resources of a firm are lacking, then their leverage from external sources is the obvious way to proceed. The concept of resource leverage best describes the strategies used by the latecomer and SMEs (Hamel & Prahalad, 1994; Prahalad & Hamel, 1990). The concept was first introduced by Prahalad & Hamel (1990) and is since used as a means of explaining how incumbents keep up with new developments. The concept suggests that firms often create alliances to identify and secure access to the resources needed to keep diversifying their product portfolio (Markides & Williamson, 1994). The same idea underpins the strategy of the latecomer firm or SMEs (Mathews, 2006). As discussed earlier (Section 3.4.1) latecomer and SMEs may often lack resources to succeed in an international market. Hence, in order to successfully operate in an international setting, latecomer firms and SMEs often seek to establish alliances with local firms in a foreign market. Through linkage, the latecomer firm or a SME can tap its links with more advanced firms to acquire market knowledge, technology, and market access – things that would otherwise be beyond a firm's limited resources. The capacity to secure more from a relationship than the firm puts in is termed as leverage (Mathews, 2002). Thus by creating effective linkages latecomers and SMEs can leverage necessary resources and expertise from their partner firms. Such leverage is particularly important for the latecomer firm or SME as it allows these firms to build competitive advantages critical to succeed in an international market.

Mittal Steel (India), is a classic example of a latecomer firm that used its international connections with incumbents to successfully leverage resources (such as technology). This strategy was particularly used by the firm in order to enter more mature markets like Europe and US. In order to successfully enter and operate in these countries the company acquired former-state owned steel plants and built a global network of interconnected mini steel mills. These acquisitions gave the firm an access to DRI (Direct Reduced Iron) technology that it previously lacked (Mathews, 2006). As a result of this the firm was able to attract international customers and gain a competitive advantage in the global market (Mathews, 2006). By establishing an integrated management system the firm was also able to leverage requisite resources and information needed to succeed in both Europe and the US. Thus the firm's global network helped it to not only access resources but also to build an international presence (Mathews, 2006).

Acer is another example of a firm that used linkages to leverage key resources in order to succeed internationally. Acer began its internationalisation in the late 1980s through large

acquisitions which nearly led the company to bankruptcy. It then regrouped and pursued an incremental strategy of expansion through partnerships with local firms in its target markets, which led to its global expansion (Bartlett & Ghoshal, 2000). These linkages allowed the firm to develop an innovative cellular organisational structure, which meant that the firm was able to gather local market knowledge that was required successfully operate in a number of international markets (Mathews, 2006).

Similarly, in the case of service firms linkages play an important role in not only helping a firm enter a foreign market but also assist in accessing necessary resources and knowledge to succeed in that market. Tata Consultancy Services (TCS) is an Indian based IT services, consulting and business solutions firm. TCS offers a consulting-led, integrated portfolio of IT, BPO, infrastructure, engineering and assurance services to a global consumer base. TCS is a part of the Tata group, India's largest industrial conglomerate and has operations in over 46 countries (Tata, 2015). As an emerging market multinational enterprise, TCS was a late entrant in the international arena. The international expansion of TCS in the last two decades is a result of strategic acquisitions and joint ventures (Verbeke, 2013). The firm for example, entered Australia by acquiring a Sydney based financial network services firm in 2005. As a result of this take over TCS was able to gain knowledge about IT solutions and services required to serve the needs of international financial institutions and secured access to a global customer base. This acquisition helped TCS strengthen its position in the Australian banking, financial and insurance sector (Verbeke, 2013). Similarly, by acquiring the Chile – based ComiCrom TCS set up its operations in Latin America. ComiCrom was a BPO that did not have the expertise to provide banking and telecommunication services, while TCS lacked the market knowledge required to operate in the region (Verbeke, 2013). The acquisition helped TCS gain market knowledge and ComiCrom the technical capabilities required to service the clients in the market.

The internationalisation strategy of CEMEX – a Mexican based cement and building material supplier – is similar to TCS. Although the firm was established in 1906, the company first internationalised its operations in early 1990's. The firm's internationalisation strategy was based on a series of acquisitions and mergers of firms in Spain, UK and Latin America (Stewart, 2015). For example, CEMEX set up its presence in the UK by acquiring England-based RMC Group, the world's biggest supplier of ready-mixed concrete. This addition made CEMEX the world's largest concrete company and helped the firm strengthen its presence in markets with high growth potential, like Eastern Europe, and would solidify its position in already developed



markets like Germany and Britain (Stewart, 2015). The firm followed a similar strategy in establishing a presence in Europe, Middle East and Asia (Stewart, 2015). The main objective of both TCS and CEMEX to acquire local firms was to gather resources and market knowledge to attain a competitive advantage in foreign markets (Stewart, 2015; Verbeke, 2013) (*Application to service firms*)

Firms like Mittal Steel, Acer, TCS and CEMEX indicate that the leverage strategy of a latecomer firm is to help them get integrated within the global supply chain by creating and making use of connections to further their business interests in foreign markets. Also, the above examples suggest that latecomer firms can access both tangible and intangible resources, such as technological know-how and local market knowledge (Mathews, 2006). Mathews (2006) further states that the latecomer firm or SMEs need to focus on ways to develop absorptive capacity to benefit from the resources gained as resources acquired may have constraints such as transferability and substitutability. Accordingly, resources accessed by a firm through its foreign linkages can be either complementary or supplementary (Das & Teng, 2000).

A complementary resource is one which that is similar to a firm's own resource and has positive impact on the competitive advantages of the firm. It has been widely argued that the effective leveraging of complementary organisational resources is critical for the realisation of sustainable improvements in a firm's competitive positioning (Doherty & Terry, 2013). However, complementary organisational resources of a partner firm can be difficult to understand and articulate at times. Consequently, competitive advantages that can be leveraged through such resources, are often determined by a firm's absorptive capacity (Doherty & Terry, 2013). The second type of resources that a firm may possess are supplementary in nature. These resources are different to a firm's own resource but have positive impact on the competitive advantages of the firm (Das & Teng, 2000). Resource alignment between partner firms is supplementary when two or more firms contribute similar resources that are performing in an alliance (Chi, 1994). For example, both partners may contribute financial resources that are essential for the formation of a joint venture. A supplementary alignment can provide risk sharing, market power, entry deterrence, and economies of scale and scope in such areas as R&D activities, production, and marketing (Das & Teng, 2000). Thus, an integration of supplementary resources could lead to synergy; that is create more value in the integrated condition than the sum of the separate values of the resources of individual firms (Das & Teng, 2000). Thus, understanding the nature of resources and their impact on a firm's competitiveness in an international market is important (Mathews, 2006).

### *3.2.2.3 Learning*

Learning is the enhancement of capabilities that results from repeated application of linkage and leverage strategies. In other words, repeated application of linkage and leverage processes may result in the firm learning to perform more effectively in an international setting. Learning is essential for any organisation to adapt, improve and innovate in order to survive especially in an international market. Also through learning, firms better understand routine processes, practices and techniques which help them customise their operational strategies in foreign markets. Latecomer and SMEs tend to follow the incumbents closely as it assists them in identifying the strategies adopted by incumbents in a foreign market and also helps them avoid the mistakes made by incumbents whilst operating in that market. This is termed experiential learning which is also supported by the Uppsala Model.

As discussed later in this chapter (sub-section 3.2.4 Uppsala Model) a firm acquires tacit knowledge through experience of operating in a given foreign market. This experience and subsequent knowledge may not only influence a firm's commitment to that market but also help the firm identify resources that are most likely to have a positive impact on the internationalisation of that firm (Mathews, 2006; Johanson & Vahlne, 2009). While an SME may benefit from strategic linkages and resultant learning, established incumbents may view this knowledge as a threat. Accordingly, incumbents may create barriers to diffusion of knowledge, imitation and availability of resources to delay the entry of competitor SMEs. At the same time, SMEs will analyse ways to overcome those barriers (Mathews, 2006).

Linkage, Leverage and Learning thus help explain why latecomer, newcomer and SMEs go to such lengths to develop strategic partnerships that may help them succeed in a foreign market. The concept of Linkage, Leverage and Learning holds particular relevance for this study for two reasons. Firstly, it helps understand how firms without necessary resources internationalise, an aspect applicable to New Zealand civil construction firms. As discussed in chapter two, the New Zealand construction sector is represented by a large number of small firms, and it is likely that many of the firms in the sector lack the resources (namely capital and labour) needed to consider international operations. Secondly, the nature and scale of international construction projects in the target markets means that most civil construction firms, including New Zealand, would find it difficult to undertake these projects without local collaboration. Further the complex nature and sequential timing of the construction projects means that New Zealand civil construction firms will depend on local collaborators to operate in the target markets. Also, most New Zealand civil construction firms may lack a permanent

presence in the target markets, which increases the importance of local partnerships (*Justification for using Mathews LLL Model*). Having discussed the LLL model, the next section of this chapter discusses International Entrepreneurship.

### *3.2.3 International Entrepreneurship*

Literature on the internationalisation of the firm has primarily focused on the international activities of large, mature multinational enterprises (MNEs) (Buckley & Casson, 1976; Chandler, 1986; Dunning, 1981; Hennart, 1982). This is despite the fact that there is a growing number of small to medium-sized firms (SMEs) that are increasingly international in their operations (Coviello & McAuley, 1999). Indeed, increasing internationalisation of SME's has generated interest amongst international business researchers to investigate how these, often resource poor firms, internationalise. While researchers have long recognised the importance of SME's to international business (Cannon & Willis, 1981; Douglas et al., 1982), Oviatt and McDougall (1994) make a vital contribution in understanding the internationalisation of international new ventures that are often undertaken by SME's. Amongst other aspects, Oviatt and McDougall (1994) argue that the traditional international business theories of firm internationalisation do not necessarily explain the internationalisation process of international new ventures that are often undertaken by SMEs.

According to Oviatt and McDougall (1994) changes in technological, economic, and social conditions have encouraged a global trend of accelerated internationalisation of firms either at or near inception. Internationalisation of such firms challenge the more traditional internationalisation theories (e.g. Uppsala Model) that state that international activity of a firm is a result of increased experiential knowledge and greater commitment of resources to foreign operations over a period of time (Johanson & Vahlne, 1977). With its roots in the entrepreneurship literature, researchers in this area suggest that the features of international new ventures are best understood at the intersection of the entrepreneurship and international business perspectives (D'Souza & McDougall, 1989; McDougall & Oviatt, 2000; Mathews & Zander, 2007; Zahra & George, 2002). Accordingly, much of the research in the International Entrepreneurship has emerged at the crossing point between international business and entrepreneurship.

Since its early origins in the 1980's research in International Entrepreneurship is characterised by a variety of evolving definitions and approaches to help understand the internationalisation of young firms (Coviello & Jones, 2004; Covin & Miller, 2013; Keupp & Gassmann, 2009; Mainela et al., 2014; Oviatt & McDougall, 1994, 2005; Peiris et al., 2012; Reuber & Fischer, 2011; Szyliowicz & Galvin, 2010; Zahra & George, 2002, 2005; Zahra, 2005). Over the last three decades, a number of researchers have tried to define the parameters of International Entrepreneurship (e.g. Jones & Nummela, 2008; Jones et al., 2011) with most academics

focusing on the internationalisation of new ventures (or born global firms) (Aspelund et al., 2007; Gabrielsson & Kirpalani, 2012; Rialp et al., 2005; Rialp, Galván & Suárez, 2010). Oviatt and McDougall (1994) state that an international new venture is a firm that seeks to internationalise at or near inception. In this case, “the firm from or near inception seeks to derive significant competitive advantage by making use of resources and the sale of output in multiple countries.” (pg. 49). While most research on International Entrepreneurship seeks to understand the internationalisation of new ventures, some researchers in the area have noted that older, established firms, can also exhibit international entrepreneurial behaviour (McDougall & Oviatt, 2000; Wright & Ricks, 1994; Zahra & George, 2005). In light of this development, Oviatt and McDougall proposed a new definition which has become the most well accepted definition of international entrepreneurship. Oviatt and McDougall (2005) state International Entrepreneurship as “the discovery, enactment, evaluation, and exploitation of opportunities across national borders to create future goods and services.” (pg. 539) This definition incorporates international activities undertaken by all firms, regardless of their age and size. It also recognises the importance of international opportunity and international entrepreneurial orientation as the two main constructs that define International Entrepreneurship (Covin & Miller, 2013; Mainela et al., 2014).

The subject of International Entrepreneurship proposes that, in contrast to firms that gradually evolve from domestic firms to MNEs, firms have an international focus from a very early stage (Oviatt & McDougall, 1994; 2000). Oviatt and McDougall (2000) highlight that entrepreneurial firms exhibit certain characteristics. According to them, entrepreneurial firms tend to be innovative, proactive in recognising international opportunities and are more likely to take risks when considering international expansion (Oviatt & McDougall, 2000). Dimitratos and Plakoyiannaki (2003) support this aspect and add that entrepreneurial firms are risk taking firms that often exhibit the desire to undertake significant and risky resource commitments in pursuit of new opportunities in foreign markets. They further add that entrepreneurial firms are also defined by their strategic direction. In other words, the success of these firms is determined by the strategic decision making of the management and not only by the types of resources that they own or control (Oviatt & McDougall, 1994). This aspect is further supported by international business research that analyses internationalisation of SMEs (Bloodgood et al., 1996; Cavusgil & Knight, 2009; Chetty, 1999; Reid, 1981).

Characteristics of a firm’s management, such as knowledge, attitudes and motivation to internationalise are important factors that influence the decisions of SMEs to internationalise

(Bloodgood et al., 1996; Cavusgil, 1984; Chetty, 1999; Reid, 1981). A study by Calof and Beamish (1995) further supports this point. Calof and Beamish (1995) state the success of an SME's international operations often is determined by the attitudes of the management rather than market and environmental factors (Czinkota & Johnston, 1983; Calof, 1994; Calof & Beamish, 1995). It is this outlook that determines how the management perceives benefits and risks of internationalisation. In some cases, these attitudes are shaped by the management's past experience of operating in foreign markets (Holbrook et al., 2000; Langston & Teas, 1976; Welch & Luostarinen, 1988). Executives in internationalised SMEs often have extensive international experience and are actively involved in building the firm's presence at an international scale. Also, the top management of such firms are likely to offer incentives and rewards to its staff in order to explore and exploit opportunities in foreign markets (Dimitratos & Plakoyiannaki, 2003). As the firm extends its international operations, it develops knowledge of how to best overcome potential barriers and identify opportunities that match the capabilities of the firm. This accumulation of experiential knowledge plays an integral role in the international growth of the firm (Autio et al., 2000; Eriksson et al., 1997; Jaffe & Pasternak, 1994). Hence, the intention of a firm to internationalise may be influenced by managerial views of the firm's competitive advantage, risks associated with internationalisation and the perceived internal and external barriers towards internationalisation. This point is further supported by a study conducted by Rashid, Aziz & Wong (2011). Using the International Entrepreneurship body of work to examine Malaysian construction companies, the authors' state that management attitude is often a key driver for internationalisation amongst construction firms. The study further states that management's perception and experience of the host market is also an important determinant in the market choice of construction firms.

A distinguishing characteristic of entrepreneurial firms is that they are likely to demonstrate a significant commitment of resources (for example, human resource, capital and time) towards developing an international presence. However, dependent on their age and size, these firms may not always possess the necessary resources to expand and survive in an international context, especially if the firm internationalises at an early stage in its life cycle. Oviatt and McDougall (1994) support of this point and state international new ventures considering international operations may not always own resources to internationalise. Indeed the age of the firm has important implications for a firm's expansion, performance and survival in an international setting. This view is widely accepted in the area of International Entrepreneurship as well as international business theorists that examine the internationalisation of SMEs or

latecomers (Mathews, 2002; Stevenson & Gumpert, 1985; Zahra & George, 2005). A possible way to overcome this barrier is to develop strategic alliances or networks with partner firms in a given foreign market. By emphasising the need to gain access to various resources without actually owning them, McDougall and Oviatt (2000) place greater importance on how international new ventures compete in foreign markets. The success of a firm in a foreign market is dependent on not only its own experience but also on its ability to create potential business linkages (partners) and networks which would assist it in gathering resources deemed necessary for operating successfully in that foreign market (Oviatt & McDougall, 1994; Mathews, 2002; Zahra, 2005). When applying this aspect of International Entrepreneurship to civil construction firms, Rashid, Aziz & Wong (2011) state that the ability of the construction firms to develop networks is critical especially in foreign markets as they not only help the firms gather necessary resources but also assist in exploiting asset opportunities in host countries. Local networks can also provide the necessary information to help the foreign firms to diversify risks normally associated with construction projects. (*Application to service firms*)

In addition to resources, the other barrier associated with early internationalisation is that often firms lack experiential knowledge of operating in foreign markets (Johanson & Vahlne, 1977, 2009). However, firms often overcome this limitation by forming business networks that can help it acquire the necessary market knowledge. For example, firms that have limited foreign market knowledge and experience often acquire this knowledge from their partner firms, distributors or suppliers in a given foreign market (Welch & Luostarinen, 1988; Dimitratos & Plakoyiannaki, 2003; Mathews, 2002; 2006). In addition to accessing resources, strategic business networks or alliances can also help firms accelerate their internationalisation and gain experiential knowledge to succeed in a foreign market (Coviello & McAuley, 1999; Mathews, 2002; Johanson & Vahlne, 2009). The firm's ability to create value from limited resources and gain a competitive advantage is primary in determining its success against large, often resource-rich firms (Barney, 1991; Caves, 1971; Stevenson & Gumpert, 1985; Hamel & Prahalad 1990; Stalk, Evans & Shulman, 1992). Thus, consistent with Buckley and Casson's (1976) definition of the multinational enterprise, the international competitiveness of a SME is also determined by value added activity, and not only by resources that a firm might own (Casson, 1982).

Over the last three decades, the field of International Entrepreneurship has shifted from its early focus on the age of the firm (new and young) to size (small-medium and large) and industry to increasingly emphasising the role of firm's resources and capabilities and the recognition of

appropriate international opportunities. The discussion in this section indicates that International Entrepreneurship is an important set of research literature that intersects the fields of international business and entrepreneurship. It is also important to note that the discussion on International Entrepreneurship incorporates RBV and network theory to understand the internationalisation of new ventures. The literature on International Entrepreneurship uses the RBV to evaluate how new ventures use firm-specific resources to successfully internationalise and compete with larger firms (Autio et.al 1997; Bloodgood et al. 1996; McDougall et.al, 1994). Additionally, research in the area also states that firm specific aspects such as global vision and international experience of the management play an important role helping a firm gain competitive advantage in an international setting (Oviatt & McDougall, 1995; McDougall & Oviatt, 1996). Hence, in an effort to understand how international new ventures can achieve and maintain a competitive advantage that is likely to generate economic rents, the International Entrepreneurship research incorporates the resource-based view. The other theory that International Entrepreneurship draws upon is the network theory. The network theory has been repeatedly used to aid the understanding of the expansion and success of international new ventures (Jolly et al., 1992; Oviatt & McDougall, 1995). As discussed earlier, research on International Entrepreneurship states that new ventures are likely to form networks to overcome resource constraints that they may encounter when internationalising their operations. Business networks can also help a firm build market knowledge that can determine its success in a foreign market.

Although, research on International Entrepreneurship has come a long way since its inception; research in the area has its limitations. The first main limitation of International Entrepreneurship is that there is no unifying paradigm that helps understand the internationalisation of new ventures (McDougall & Oviatt, 2000; Zahra & George, 2005; Keupp & Gassmann, 2009). This point is best supported by a study conducted by Keupp and Gassmann (2009). Keupp and Gassmann (2009) conducted a literature review of 179 International Entrepreneurship articles that were published in top tier journals. The purpose of this meta-analysis was to understand the theoretical underpinnings of International Entrepreneurship as a research field. Upon their research, the authors stated that a number of articles that analysed the internationalisation of new ventures failed to use a specific theoretical framework. Also, the articles that did use a theory, mostly drew upon theoretical frameworks that have their origins in international business, strategic management and innovation (Keupp & Gassmann, 2009). This disparity, according to the authors, may be perhaps due to the fact



that the theory on entrepreneurship is fragmented; hence research in the area tends to draw upon literature from disciplines other than entrepreneurship (Eckhardt, Shane & Delmar, 2006; Keupp & Gassmann, 2009; Shane & Venkataraman, 2000; Zahra & George, 2005;).

Secondly, the area is largely limited to analysing the internationalisation of new ventures that are often undertaken by small firms. A limitation of prior research is that it precludes International Entrepreneurship by established firms. This focus disregards the fact that entrepreneurial activities of a firm are an ongoing process that develops over a period of time (Zahra & George, 2005). Further, researchers in the field also state that this type of context specificity does not align with the definition proposed by Oviatt and McDougall (2005) which states that firms that engage in exploitation of opportunities across national borders display international entrepreneurship. This suggests that all firms regardless of size and age exhibit aspects related to international entrepreneurship. However, research in this field almost exclusively analyses small firms. For example, according to Keupp and Gassmann (2009) most studies on International Entrepreneurship concentrate on international activities of small firms. The authors suggest that most research in the area implicitly equates “entrepreneurial” to small firms. Firms of different age and size often engage in entrepreneurial activities as they decide to expand their operations into international markets (Zahra & Garvis, 2000; Zahra & George, 2005) and these firms should be included in the study of International Entrepreneurship (Zahra & George, 2005). Although, some of the earlier research in International Entrepreneurship focuses on the internationalisation process of older, established SME’s (for e.g. Wright & Ricks (1994)), empirical research in this area is very limited.

Thirdly, the main intention of research in International Entrepreneurship is to undertake academic study that bridges the fields of international business and entrepreneurship (Oviatt & McDougall, 2005). However, current research in the area fails to achieve this. According to Keupp and Gassmann (2009) the field of International Entrepreneurship does not bridge the perspectives of international business and entrepreneurship, as neither of these two research areas is context specific to firm size and firm age when analysing internationalisation of the firm. Rather, theory in both international business and entrepreneurship is concerned with *how* and *why* firms internationalise. Also, given that the theory of entrepreneurship is more concerned with the entrepreneurial processes and the entrepreneurs, the theory gives little regard to other theoretical perspectives that analyse the international growth of firms (Etemad, 2013).

Theoretical perspectives in the field of international business on the other hand, are more concerned with the use of firm-specific resources, the importance of networking and foreign market entry strategy of the firm. The field of International Entrepreneurship is supposed to bridge the gap between the two fields as research in the field is concerned with both the entrepreneurial processes and international growth of firms. However, existing research in International Entrepreneurship tends to employ and draw on established theoretical frameworks in international business or entrepreneurship disciplines, rather than employing theoretical perspectives from both these disciplines to understand the internationalisation of young firms (Zahra & George, 2005). This approach has made the research in International Entrepreneurship increasingly divergent from the envisioned legitimisation of the field to be an intersection of international business and entrepreneurship theory (Keupp & Gassmann, 2009). The limitations outlined in this section suggest that though International Entrepreneurship has gained significant attention over the last three decades, research in the area is still to attain theoretical rigour and legitimacy, a view held by prominent theorists in this field (Covin & Miller, 2013). Despite some limitations, the concepts discussed in the International Entrepreneurship literature are important for this study. These ideas highlight how management attitudes influence the internationalisation of a firm. This is an important factor as given the complexity and the risks associated with construction projects, New Zealand civil construction firms may be reluctant to undertake work in the target markets. Also, as discussed earlier in the study (please refer to Chapter 3), availability of work in the domestic market may have an impact on how New Zealand firms perceive opportunities in the target markets. Finally, similar to Mathews, International Entrepreneurship will also help in the understanding how resource poor firms internationalise. *(Justification for using International Entrepreneurship)*

### 3.2.4 The Uppsala Model

Most theories of firm internationalisation consider internationalisation to be a gradual, sequential process passing through different stages, with a firm increasing its commitment to international operations as it proceeds through each stage. This is a pattern oriented approach and because it uses stages as its central concept, is often referred to as the stages model. Various stages models of internationalisation have been proposed: first, the Uppsala process model (Johanson & Wiedersheim-Paul 1975; Johanson & Vahlne 1977, 1990; Welch & Luostarinen, 1988), second, the innovation-adoption internationalisation models (Chetty & Campbell-Hunt, 2003) and third, the management decision making process towards internationalisation (Reid, 1981). The most frequently used of these stages models is the Uppsala process model. The Uppsala Model explains the nature of the internationalisation process of a firm. Researchers in the department of business studies at Uppsala University made empirical observations in the mid-1970's which contradicted the established economics and normative international business literature of the time.

According to studies at the time, firms choose or should choose an optimal mode for entering a market by analysing their costs and risks based on market characteristics and their own resources (e.g. Hood & Young, 1979). However empirical observations from a database of Swedish-owned subsidiaries operating abroad and also from a number of industry studies of Swedish companies in international markets indicated that firms frequently began internationalising with *ad hoc* exporting (Carlson, 1975; Johanson & Vahlne, 2009; Vahlne & Wiedersheim-Paul, 1973). According to data collated during the research, firms subsequently formalise their entries in a foreign market through deals with intermediaries (often agents) who represent the focal companies in the foreign market. As sales grow firms replace the intermediaries with their own sales organisation and as growth continues they may begin to manufacture in the foreign market to overcome trade barriers.

The researchers labelled this dimension of the internationalisation pattern the establishment chain as seen in figure 3.1.

**Figure 3.1 Establishment Chain**



(Source: Johanson & Vahlne, 1977)

Another feature of the pattern was that internationalisation frequently started in markets that are close to the home country in terms of psychic distance. Psychic distance is a useful construct in that it gauges the degree of difference between cultures. It was used by the researchers to indicate the sum of factors that prevent information flowing from one national environment to another. It was also used to explain the ways in which firms choose to internationalise their operations and the term became established as an important explanatory variable in the internationalisation process. The model states that firms gradually enter markets that are further away in terms of psychic distance (Johanson & Wiedersheim-Paul, 1975; Vahlne & Wiedersheim-Paul, 1973). This process had its origin in the liability of foreignness, a concept that originally explained why a foreign investor needed to have a firm-specific advantage to offset this liability (Hymer, 1976; Zaheer, 1995). The larger the psychic distance the larger is the liability of foreignness. Psychic distance is also often correlated with the geographic distance between two markets: - the larger the geographic distance, the more distinct are the differences (cultural, political and economic for example) between two markets (Zaheer, 1995). The initial model presented a rudimentary understanding of market complexities that helped explain the difficulties that firms face when internationalising.

However, subsequent research on international marketing and purchasing in business markets changed the model to encompass a business network view (Johanson & Vahlne, 2009). This change is based on business network research and has two facets. Firstly, the revised model states that markets are networks of relationships in which firms are linked to each other in various complex and, to a considerable extent, invisible patterns. Secondly, relationships offer the potential for learning, building trust and commitment in a foreign market. Both these aspects are relevant for SMEs as these firms often lack the necessary experience and knowledge of operating in foreign markets. Therefore, networking becomes a primary source of information gathering in an international context (Johanson & Vahlne, 2009).

This aspect is based on the assumption that developing knowledge is fundamental to a firm's internationalisation, in particular the knowledge that is developed from experience of operating in a foreign market. Knowledge can be developed through networking and relationships with other firms, potential partners and stakeholders in a foreign market. The revised model also emphasises that firms change through experiential learning (Johanson & Vahlne, 2009). As they gather knowledge about a foreign market, they are likely to change their operational strategies to best suit the requirements of that foreign market. That is to say, as a firm builds knowledge through experience of operating in a foreign market, that body of knowledge then influences its entry strategies, level of commitment (to the market, potential partner(s) or project) and ability to take risks (Johanson & Vahlne, 2009). Further, in their study of experiential learning in the internationalisation process, Eriksson et.al, (1997) found that lack of institutional knowledge in addition to general business knowledge of a foreign market, require a significant time to overcome and may affect the perceived cost of internationalisation for a firm.

This view is supported by the institutional theory. The institutional theory focuses on how structures, arbitrators, laws and protocols that are established within a given market affect the firms operating in that market (Scott, 1995). In other words, every country has its own set of institutions which may comprise of specialised intermediaries, regulatory systems, and contract-enforcing mechanisms. Theorists in the area state that, in order to succeed, firms must conform to the institutions that exist in a given market (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). This is because understanding of the institutional environment, both structural and procedural, will allow the firm to better function in that market. Indeed, the economic, political, legal and market institutions form an integral part of a country's business environment and play a critical role in the development and execution of a firm's strategy as well as determine the success of a firm (Khanna & Palepu, 1997, 1999). While firms operating in the

developed countries benefit from well-established institutions, such institutions are often underdeveloped or absent in the emerging markets (Khanna & Palepu, 1997; Scott, 1995). Whilst foreign firms considering operations in the emerging markets undertake an analysis of the nature of the industry, extent of competition and risk assessment, aspects that focus on the potential profits, they however, often fail to gather information about the institutions that exist in these markets (Khanna & Palepu, 1997; Marinova, 2014). Given that institutions in the emerging markets are often underdeveloped gathering information without local assistance can be particularly difficult (Marinova, 2014).

A lack of institutional knowledge – that is lack of knowledge about the political, economic and the legal, market and cultural environments, – is often related to psychic distance between two markets and so is linked to the liability of foreignness (Eriksson et.al, 1997; Marinova, 2014). The business network view of the Uppsala Model supports this perspective and states that the larger the psychic distance, other things being equal, the more difficult it is for a firm to build relationships in a foreign market. The success of a firm in a foreign market is therefore dependent on not only its own experience but also its ability to create potential business linkages (partners) and networks which would assist it in gathering and understanding information deemed necessary for operating successfully in that foreign market (Johanson & Vahlne, 2009). This aspect of the model explains why moves into more risky, but potentially rewarding markets, that are remote in terms of both geography and psychic distance, are made incrementally especially when firms have limited international experience. This factor is particularly true for most New Zealand firms as they favour operations in markets such as Australia and the Pacific Islands which are close in both geography and psychic distance (Chetty & Campbell, 1996).

The points discussed in this section highlight that lack of market and institutional knowledge can act as a major barrier for firms considering operations in a foreign market as it can raise the perceived cost of internationalisation. Thus it can be suggested that the extent of market knowledge and commitment may impact the undertakings of a firm in a foreign market. These undertakings on the other hand influence a firm's market knowledge and commitment towards a given foreign market. Accordingly the model emphasises learning by focusing on market knowledge and commitment (Johanson & Vahlne, 2009). To minimise risk and overcome uncertainty the Uppsala model also states that a firm can internationalise in a sequential process by creating linkages with potential partners and stakeholders in a foreign market. As a firm gains market knowledge it is likely to commit more resources to the market. In support of this

view, Martinsons (1998) states that, social networks are a common way of conducting business particularly in markets where institutional deficiencies occur. Martinsons (1998) further adds that the development of relationship-based commerce in markets like India, Russia and China is due to institutional weakness that exist in these countries. For this reason personal connections developed through social networks, such as Guanxi in China and Blat in Russia, play an important role in helping a firm gather market and institutional knowledge (Martinsons, 1998; Marinova, 2014).

In addition the Uppsala model suggests that experiential learning results in a gradual more differentiated view of foreign markets, and of the firm's own capabilities. This point is supported by a study conducted by Gorska (2013). The author used the Uppsala Model to understand the internationalisation of Polish advertising agencies into China. The findings of the study partially confirm the Uppsala Model. According to the study, 26 of the 32 agencies that were interviewed, gradually increased their commitment to the Chinese market. As early entrants in China, the firms increased their commitments in the market as they developed experiential knowledge. For example, internationally renowned advertising agency Saatchi and Saatchi followed the gradual establishment path proposed by the Uppsala Model. The firm entered the market by establishing a relationship with a local media broker and set up a representative office in Guangzhou (Gorska, 2013). After operating in the market for two years, the firm eventually established its own branch offices in the region. It was also noted that some of the firms skipped steps of the establishment chain as they had a smaller psychic distance to the Chinese market.

However, the findings of the study also indicate that the late entrants followed a path that deviates from the internationalisation pattern proposed by the Uppsala Model. The author found that eight of the 32 firms were more rapid in expanding their presence in the Chinese market. This rapid expansion was a result of increased demand and pressure from existing clients in the Chinese market and not due to active market seeking, as the Uppsala Model proposes. These firms followed their clients to China without any initial market knowledge and only made greater commitments when their clients required them to. The advertising agencies search for knowledge was not driven by the need for internationalisation, but rather by a desire to serve their clients better. The study also noted that some of the firms that had a prior presence in Asia, skipped steps of the establishment chain as they had a smaller psychic distance to the Chinese market. The findings of this study are a good illustration of how important the

extensions of the original Uppsala-model are for understanding the differing patterns of internationalisation (*Application to service firms*).

Although the Uppsala Model is a well-recognised theory, it is not without criticism. The Uppsala Model is criticised both for its theoretical and practical aspects. Some researchers have found it invalid in some cases while others have accepted it with modifications (Andersen 1993; Sullivan & Bauerschmit 1990). Researchers have tested the model's applicability, strengths and weaknesses through different studies. The model has been criticised from different perspectives and its basic assumptions have been challenged by a number of empirical studies. Andersen (1993) for example, argues that the main problem of the model is that there is no explanation of why or how the process starts or the nature of the mechanism whereby knowledge affects commitment. The Uppsala model's basic argument is that a firm goes through four consecutive stages of increased market commitment while internationalising in a foreign market (as seen in figure 3.1). After testing the incremental internationalisation hypothesis, Sullivan and Bauerschmit (1990) concluded that the empirical evidence does not support this proposition. Other critics, especially in the area of International Entrepreneurship support this point and argue against the incremental, step-by-step character of the model since studies have found that it is possible for firms to skip some of the stages and achieve internationalisation rapidly rather than doing so gradually (for example born global firms) (Chetty & Campbell, 2003; Oviatt & McDougall, 1994). It is also important to note that the internationalisation pattern a firm differs if the firm is an early or late entrant in a given foreign market, as demonstrated in the study conducted by Gorska (2013). This point in particular is very relevant for this study as most New Zealand civil construction firms would be considered as late entrants into the target markets.

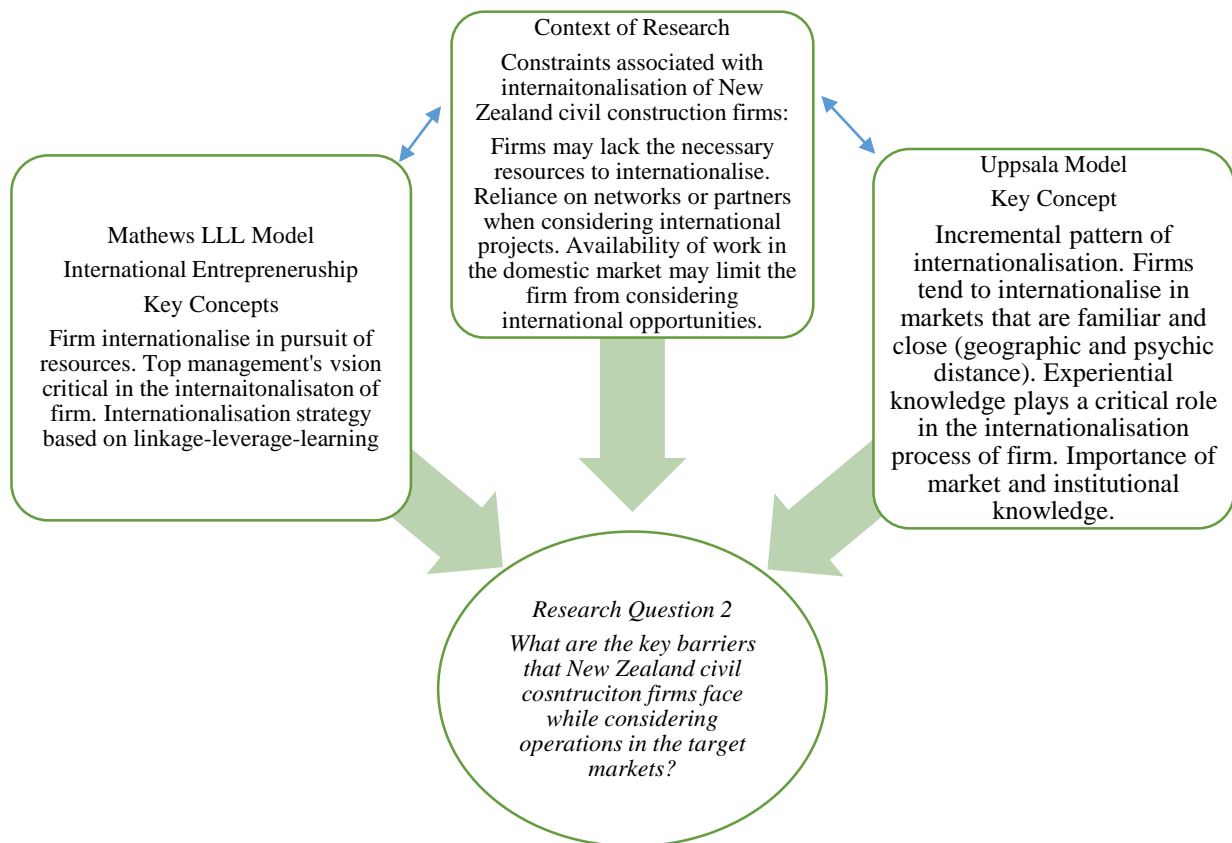
Despite these shortcomings, the theory provides valuable insights into a firm's pattern of internationalisation. The theory also discusses the impact of psychic and geographic distance on the ability of a firm to successfully internationalise. Given that New Zealand is geographically distant from the target markets, it can be assumed that New Zealand civil construction firms will incur significant costs when internationalising to these markets. Furthermore, as the target markets and New Zealand differ considerably in terms of cultural, political and institutional environments, the impact of psychic distance on New Zealand civil construction firms is also worth analysing. (*Justification for using Uppsala Model*)



### *3.2.5 Research Context: Research Question 2*

The key point that can be drawn from both the LLL model and International Entrepreneurship is that SMEs may lack necessary resources when internationalising. As discussed earlier in this chapter, the New Zealand construction sector is represented by a large number of SMEs. This suggests that most New Zealand civil construction firms are unlikely to have resources (such as capital and human resource) that are required to internationalise their operations, an aspect that can constraint these firms from considering international ventures. One other key factor that is important to consider is the management's attitude towards internationalisation and the consequent level of experiential knowledge that a given firm possesses. Indeed as stated in the International Entrepreneurship literature, the attitude of the management plays a critical role in the internationalisation strategy of a firm. Hence it is important to examine whether the management's vision could possibly constraint the internationalisation of New Zealand civil construction firms. Another factor that might impede New Zealand civil construction firms from considering international operations in the target markets is the geographic and psychic distance between New Zealand and the target markets. Amongst other theories, the Uppsala Model, specifically addresses the impact of geographic and psychic distance on the internationalisation of a firm. As discussed in section 3.2.4, firms normally internationalise that are close not only in terms of geographic but also psychic distance and as firms build experiential knowledge, it is likely to expand its operations to more distant markets. This aspect holds particular relevance for New Zealand firms as most New Zealand firms tend to concentrate on Australia and the Pacific Islands as their primary international markets.

Hence it can be assumed that New Zealand civil construction firms are likely to incur significant costs when internationalising to the target markets. Also, as the target markets and New Zealand are noticeably different in terms of cultural, political and institutional environment, the impact of psychic distance on New Zealand civil construction firms is also worth analysing. Given the constraints outlined above, the internationalisation strategies of New Zealand civil construction firms are likely to depend on developing strategic linkages that may help them attain resources necessary to successfully operate in a given foreign market. In addition to resources, linkages with firms in a foreign market may also help in gathering market knowledge.



In light of the points discussed in this section factors like firm size, resources, experiential knowledge, geographic and psychic distance are likely to constraint New Zealand civil construction firms from internationalising their operations in the target markets, which leads this study to its second question:

*Research Question 2: What are the key barriers that New Zealand civil construction firms face when considering operations in the target markets?*

*This research question has three sub-questions:*

- 2.1 How do psychic and geographic distance influence the internationalisation of New Zealand civil construction firms?*
- 2.2 What role does experiential knowledge play in the internationalisation of New Zealand civil construction firms?*
- 2.3 How does a stable domestic market affect the ability of New Zealand civil construction firms to undertake operations in the target markets?*

Having discussed the relevant theories and the research questions that this study wishes to investigate, the following section now presents the propositions of this research.

### ***3.3 Application of Theories to Service Firms and Development of Research Propositions***

Research propositions form the basis for scientific research. The validity of a research study is to a large extent evaluated on the criteria of its propositions. For internal validity, research propositions provide information regarding precision of the literature and its association with the data collected and confounding factors that are considered in the research. For external validity propositions form the premise for the deduction of implications that can be drawn from the analysis of the data and wider literature. Accordingly, the purpose of this section is to present the propositions of this research. The propositions presented in this section help answer the research questions outlined earlier in the chapter. The propositions outlined in the chapter incorporate the relevant theories discussed earlier in the chapter, the characteristics of the construction sector, and the characteristics of New Zealand civil construction firms.

#### ***3.3.1 Application of Theories to Civil Construction firms and Development of Propositions***

*Research Question 1: How do firm-specific advantages influence the international competitiveness of New Zealand civil construction firms?*

The first research question of this study proposes to analyse whether firm-specific advantages influence the internationalisation of New Zealand civil construction firms. A firm's ability to successfully compete in an international setting is determined by a variety of firm-specific advantages. Amongst other aspects, some of the most important firm-specific advantages of a firm include niche capabilities, human resource and international networks. Accordingly, the discussion that is to follow applies the OLI paradigm and the RBV to help analyse how firm-specific advantages assist New Zealand civil construction firms to internationalise. This section also presents the first four propositions of this study.

##### ***3.3.1.1 Importance of firm-specific capabilities***

The eclectic approach has been applied to a wide range of situations, including service firms (Dunning, 1989; Enderwick, 1989; Seymour, 1989). When applied to service industries such as civil construction, a number of specific features are apparent. Amongst other aspects, one of the main issues is the identification of ownership advantages in a sector that is generally seen as being of low technological intensity. Identification of ownership advantages can be particularly difficult for service firms as their expertise lies in offering services that are intangible in nature. That is, services, unlike goods, do not always consist of physical attributes

which can be judged by consumers. Rather, they are "experiences" which cannot be clearly assessed before consumption (Buckley, Pass & Prescott, 1992; Prescott, 1986). For this reason, service firms tend to rely more on intangible assets such as name, reputation and experience. In case of civil construction firms, the contracting firm's name represents and embodies its past experience, reputation and specialist expertise in a given area (Dunning, 1989). As such, the name of the firm is a major source of firm-specific differentiation because it enables the firm to compete effectively against other competitors in the industry (Seymour, 1989). The name of the firm also reflects the expertise of the firm's workforce. Since the name embodies both the reputation and specialist skills of the firm, skilled and experienced human resource is a major firm-specific advantage in international construction (Dunning, 1989; Seymour, 1989).

In addition to intangible assets, construction firms are likely to display tangible assets in the form of niche capabilities or specialisation. These niche capabilities and resources are likely to reflect home market conditions. For example, U.S. contractors are strong in technology based process applications, while Korean firms have built their capability on military installations and Italian firms enjoy considerable expertise in dam construction (Enderwick, 1989; Seymour, 1989). As discussed earlier in sub-section 3.2.1.2, New Zealand civil construction firms have capability in construction and engineering technologies relating to earth quake proofing, renewable energy applications, sustainable architecture, aviation and specialised design and manufacturing. Also, examples discussed in the sub-section (3.2.1.2) indicate that a select number of New Zealand civil construction firms that have undertaken projects in the target markets are recognised for their expertise and have built a strong reputation based on their capabilities. Indeed, construction firms that develop a strong reputation due to their niche capabilities are considered to have a competitive edge when considering international projects (Quak, 1991). Based on the above points it can be stated that:

*Proposition One: New Zealand civil construction firms that have capabilities and expertise applicable in the target markets will internationalise their operations.*

### **3.3.1.2 Importance of human resource as a firm-specific advantage**

Amongst other aspects, one of the primary assets for construction firms is the knowledge of the personnel (Barney, 2011; Bartlett & Ghoshal, 2002; Greenwood & Empson, 2003; Grosse, 2000; Maister, 1993). Knowledge in a firm is based on the expertise (technical skills and education) and work experience (both domestic and international) of its personnel. Knowledge becomes particularly relevant for construction firms when considering international operations.

Given the nature of the projects and the level of government involvement, construction firms require staff that understand the dynamics of operating in an international setting (Rashid, Aziz & Wong, 2011). Also, construction firms require high levels of managerial and coordination skills especially when involved in infrastructure projects. Construction, unlike many other industries, requires continuous intervention rather than management by exception (Enderwick, 1989; Rashid, Aziz & Wong, 2011). Thus civil construction firms seek to create value through their selection, development, and use of appropriate human capital especially in an international setting (Hitt et. al, 2001; Lepak & Snell, 1999; Moreira et.al, 2013).

A firm's competitiveness depends on the value, rarity and uniqueness of its resources and capabilities (Barney, 2011). However, to realise this potential a firm must be organised to exploit its resources and capabilities. Organisation deals with the firm's ability to organise its structure and operations in a way that enable it to achieve a sustainable competitive advantage in a foreign market (Barney, 2011). Analysis of construction firms suggests that the types of advantages they seek to create are specialised and this is often determined by the expertise of their human resource (Enderwick, 1989; Quak, 1991). This is because, the business process within construction projects comprises of highly complex interrelated tasks requiring the acquisition and co-ordination of different categories of human resource skills (Ng et. al, 2001). Procuring and retaining employees especially for international projects is therefore a major challenge for construction firms (Ling & Hoi, 2006; Ng et.al, 2001). Also, international clients are more likely to choose firms with employees that have the capabilities and know-how to service their needs (Ng et.al, 2001; Rashid, Aziz & Wong, 2011).

Given the importance of human resource, labour productivity is an important aspect for construction firms. However, the construction sector suffers from low labour productivity. This is perhaps because a large number of firms in the sector are small to medium, hence lack the necessary financial resources to invest in developing their human resource. This is particularly true for New Zealand construction. Productivity in the construction sector (as a whole) is not only amongst the lowest in New Zealand, but also internationally when compared to countries such as the UK Australia and US, with value added per person in New Zealand being the lowest of the four countries (Page, 2010). For example, the value added person in New Zealand construction sector is 15% lower than UK Australia and US. The primary reason behind this perhaps is that apart from major infrastructure projects, most of the projects undertaken in New Zealand are small scale as opposed to the other three comparator countries (Allan, & Yin, 2010; Page, 2010). This helps explain the sector's relatively low productivity.

Also, as most firms in this sector are classified as small to medium, it is likely that they lack the breadth and depth of finances to invest in training programmes to augment labour skills to lift productivity levels (Ministry of Business, Innovation and Employment, 2013). This aspect may constraint firms in the sector from considering opportunities beyond New Zealand.

The above points suggest that civil construction firms with a robust and productive human resource are more likely to expand into international markets. Hence it can be stated that:

*Proposition Two: The levels of human resources and their productivity within New Zealand civil construction firms can influence their internationalisation.*

### ***3.3.1.3 Importance of networking to develop firm-specific advantages***

One of the criticisms of the eclectic approach (Dunning, 1977; 1979; 1988; 1995) and the RBV (Barney, 1981; 2011) is that these theories assume the existence of firm specific advantages and resources and that these are generally created in the home market (Buckley et.al. 2007). However, this may not be true for all firms considering international operations. Where it is difficult for firms to create advantages in the home market due to small size, underdevelopment of the domestic market, lack of resources or late entrance into international markets, they may be more inclined to access resources through collaboration when considering international operations (Deng, 2007; Luo & Tung, 2007). For this reason, Mathews LLL Model (2002, 2006) and International Entrepreneurship are highly relevant to this study. Mathews LLL Model focuses on late entrants into world markets and emphasises the links between internationalisation and the pursuit of resources as compared to multinational incumbents who pursue internationalisation with the aim of exploiting existing assets and advantages. International Entrepreneurship, on the other hand, suggests that firms consider international opportunities from a very early stage. Also, similar to the LLL Model, theorists in International Entrepreneurship state that firms are likely to internationalise in pursuit of resources rather than to simply exploit their firm specific capabilities (Oviatt & McDougall, 1994; Rashid, Aziz & Wong, 2011).

According to Mathews, a critical difference between incumbents and latecomer firms is that the latter are not reliant on their own advantages or resources when considering international operations. Rather these firms rely on resources and advantages which can be acquired externally. In other words, latecomer firms may not necessarily possess competitive resources while internationalising. As discussed earlier in the chapter, a firm that internationalises in pursuit of resources or complementary assets is likely to face problems of market intelligence

and uncertainty concerning the quality of market knowledge accessible by the firm. A way to offset risks that may stem lack of market knowledge is to develop networks (linkages) or collaborative partnerships and alliances with firms in a given foreign market. Indeed the discussion on internationalisation of firms indicates that a number of SMEs succeed by turning preliminary incapacities into sources of advantage through leapfrogging to advanced technological levels, for example, or by leveraging their way into new markets through partnerships and joint ventures. Also, if a firm is lacking in competitive resources, then their leverage from external sources becomes necessary (Hamel & Prahalad, 1994; Prahalad & Hamel, 1990).

The construction sector is represented by SMEs, hence these firms are more likely to depend on strategic relationships with potential partners when considering international projects (Seymour, 1989). International construction projects often require local equity participation hence, partnerships or joint ventures are necessary for firms considering international operations (Moreira et.al, 2013; Rashid & Aziz, 1995). Also such alliances can help firms understand the regulatory environment and facilitate in understanding the foreign market (Rashid & Aziz, 1995). This aspect is particularly true for New Zealand civil construction firms. As discussed earlier in this chapter (sub-section 3.2.1.3) New Zealand civil construction firms such as Beca engineering and Opus and a leading industry body, Aviation New Zealand, have managed to secure work in the target markets by developing strategic partnerships with local firms and key stakeholders. Such alliances have helped these firms establish a strong presence in those markets and have also facilitated firms' attainment of market knowledge and experience. Given the size of the firms, collaboration with local firms in a foreign market can also prove to be a useful way to acquire necessary resources. This highlights the importance of linkage, leverage and learning as advocated by Mathews (2006). Considering the above points it can be concluded that strategic alliances and networking can play a critical role in assisting New Zealand civil construction firms succeed in a foreign market. Hence it can be stated that:

*Proposition Three: New Zealand civil construction firms will rely on strategic alliances and networking when considering opportunities in emerging markets.*

#### **3.3.1.4 Firm size and competitiveness**

Size of the firm plays an important role when considering international expansion. Indeed, international operation of SMEs is often characterised by a high degree of vulnerability. This perhaps because SMEs lack the necessary resources to internationalise. In other words, the

larger the enterprise, the more access it will have to better resources (e.g. finance and human resource). The construction sector generally is characterised as an industry that is representative of large number of small firms (Enderwick, 1989; Ofori, 2010). Given their size, most firms in the construction sector therefore have limited access to resources such as labour and capital (Rashid & Aziz, 1995). As discussed in chapter two, the construction sector in New Zealand is typical of this description as it is represented by a large number of small firms (PriceWaterHouse Coopers, 2011). For this reason, it is likely that the firms in the sector have limited financial and human resources to consider overseas opportunities (Hillebrandt, 2000). This aspect is particularly important for civil construction and heavy engineering firms as the size of the firm not only enables the firm to bid for larger projects but also allows the firm to diversify its services (Seymour, 1989). The constriction of operations reflected in the findings that New Zealand firms generally tend to concentrate on a limited range of markets (namely Australia and the Pacific Islands) (Akoorie & Enderwick, 1992; Chetty & Campbell-Hunt, 2003) indicates that given their size New Zealand firms lack resources to undertake extensive international operations (Chetty & Campbell-Hunt, 2003). As the New Zealand construction sector is represented by a large number of small firms, this aspect maybe applicable to New Zealand civil construction firms as well. Although there is mixed evidence on the relationship between size and international performance (Cavusgil, 1984; Czinkota & Johnson, 1983) research suggests that there must be critical mass to successfully internationalise (Coviello & Martin, 1999).

In addition to resources, the size of a firm also affects its competitiveness in a foreign market. While, the New Zealand civil construction sub-sector represents some of the leading firms in the domestic market (PriceWaterhouseCoopers, 2011), these firms are relatively small on a global scale. For example, Australian based Leighton Contractors, is a leading international player that employs approximately 12,007 staff and has an annual turnover of NZ\$8.0 billion (Leighton Holdings, 2013). Contrary to this, Fulton Hogan, one of the most prominent construction firms in New Zealand, employs only half (5500) as many staff (Fulton Hogan, 2011(b)). Also, the annual turnover of Fulton Hogan is only a quarter (NZ\$2 billion) of the annual turnover of Leighton Contractors (Fulton Hogan, 2011(a)). This example highlights that although New Zealand civil construction firms are considered to be significant players in the domestic market, they are small on an international scale. As markets like India and China for instance, have a host of dominant large domestic and international construction firms keen on benefitting from the prospects offered by these markets, New Zealand construction and



engineering firms are likely to face tough competition if they decide to operate in the target markets. Hence, the size of New Zealand civil construction firms is likely to have a significant impact on their competitiveness when considering international operations. Based on the above points it can be stated that:

*Proposition Four: Firm size can influence the international competitiveness of New Zealand civil construction firms.*

*Research Question 2: What key barriers are New Zealand civil construction firms likely to face while considering operations in the target markets?*

The second research question aims to analyse the possible barriers that may constraint New Zealand civil construction firms from undertaking operations in the target markets. Factors such as market knowledge, experience and geographic and psychic distance can impact a firm's ability to undertake international operations. Given that the New Zealand construction sector is represented by a large number of SMEs, it can be assumed that firms within the sector might lack necessary resources to internationalise. Also, given the geographic distance between New Zealand and the target markets, it is likely that the New Zealand civil construction firms may incur significant costs should they undertake operations in those markets. Differences in culture, language and regulatory environment could also pose significant challenges for New Zealand civil construction firms. Accordingly, the propositions outlined in the sub-sections below will assist in understanding whether the above mentioned factors constraint the internationalisation of New Zealand civil construction firms.

#### ***3.3.1.5 Impact of Geographic and Psychic Distance on Internationalisation***

The impact of cross-national distance on the decision to enter international markets, the sequence of market entry, and the choice of entry mode has received much attention in the field of international business. These themes lie at the core of the internationalisation process of a firm (Werner, 2002). International evidence suggests that geographic distance from key markets has a substantial negative impact on the size of a country's international economic relationships (Shaw & Darroch, 2004). This is particularly true in the case of New Zealand firms as the distance from major markets is quite significant. Research by Chetty and Hamilton (1996) for example, identifies Australia and the Pacific Islands as the most popular markets served by New Zealand firms. This is not surprising given the geographic proximity of New Zealand to these markets. Also, given the geographic distance, New Zealand firms are likely

to be more familiar with the cultural, economic and political environments of these markets (i.e. psychic distance).

The Uppsala Model (Johanson & Vahlne, 1977) supports this point by stating that firms are most likely to first internationalise their operations to markets that are familiar and close to home. The eclectic paradigm also suggests that countries that share large geographic distances may also be distinct in terms of economic, social, cultural, or political differences, which makes it harder to operate in international markets that are distant from the home country (Dunning, 1993). It is also assumed that firms internationalising from a remote base will lack basic resources to build networks with potential clients and key stakeholders to better understand the local business and institutional environment (Werner, 2002). Given that international construction projects are often risky and require thorough market knowledge (Ng et.al, 2001), it is unlikely that New Zealand civil construction firms will undertake work in countries that are unfamiliar and distant to New Zealand. Also, international construction projects often require firms to make substantial capital investments. The size of New Zealand civil construction firms means that the firms may lack sufficient working capital to fund their operations in the target markets as they are distant. This also suggests that New Zealand civil construction firms are more likely to restrict their operations to markets like Australia and the Pacific Islands as these are close to New Zealand, both in geographic and psychic distance. Given the above points it can be stated that:

*Proposition Five: New Zealand civil construction firms are more likely to operate in international markets that are familiar and close to New Zealand.*

#### **3.3.1.6 Importance of Domestic Market**

In addition to factors like firm size, resources, geographic and psychic distance, availability of work in the domestic market is also an important factor that may influence the internationalisation of New Zealand civil construction firms. The civil construction sector in New Zealand has very limited competition. With only 35 firms, firms within this sector enjoy a strong hold on the domestic market. Although foreign civil construction firms like Aecom (US), Leighton Contractors (Australia), Gannan (Australia) and GHD (Australia) are currently operating in New Zealand the presence of foreign firms in the sector is still small. The percentage of foreign investment made in the construction sector, for example is constant at 0.27 percent both in 2006 and 2011. In contrast to this, foreign investments made in retail trade sector in New Zealand were at 2.8 percent (2006) and 1.9 percent (2011) respectively

(Enderwick, 2012). Also, research on New Zealand Inward Foreign Direct investment suggests that compared to other sectors, the New Zealand construction sector has the least number of foreign affiliates. For example, foreign affiliations in the New Zealand construction sector stands at just 49 compared to 430 in manufacturing and 958 in finance and insurance (data last published) (Attewell & Lijf, 2005). Limited competition and dominant position in the domestic market suggests that New Zealand civil construction firms may be less inclined to consider opportunities in the target markets. Given the limited number of foreign firms currently operating in the New Zealand construction sector, it can also be assumed that the New Zealand civil construction firms are less likely to create partnerships with foreign firms which will allow them to internationalise. Accordingly it can be proposed that:

*Proposition Six: International partnerships and subsequent operations in overseas markets will constitute to be a small part of the total activity of New Zealand civil construction firms.*

In addition to limited competition and foreign affiliations, the devastating earthquakes in Canterbury in September 2010 and February 2011 are likely to have substantial ramifications for the civil construction sector in particular as infrastructure is rehabilitated and residential and other commercial buildings are re-built and repaired over the next decade. Indeed, across the country projects have been cancelled or deferred pending determination of capital requirements for Christchurch. According to the Treasury's initial estimates the financial cost of the earthquakes was about NZ\$24 billion (as at 2011) in addition to the NZ\$5 billion that had been estimated for the earlier quake that hit the city in September 2010 (Gibson, 2011; PriceWaterhouseCoopers, 2011). The Treasury estimates as of December 2013 stand at NZ\$40 billion (The New Zealand Treasury, 2013). Analysts such as Canterbury Employers Chamber of Commerce, state that the sector is likely to shrug off its current slump citing the Christchurch infrastructure rebuild and NZ\$20 billion worth of house repairs and rebuilding (Townsend, 2014). These facts lead to a rational conjecture that most of these costs will be spent in the construction sector. The relative scale of the work in the aftermath of the Christchurch earthquakes is enormous. According to media reports firms that have assessed the status of affected sites and the extent of rebuild required suggest that there will be an increase in the rebuild activities over the next decade (Steeman, 2014). The rebuild is expected to generate around NZ\$4.1 billion in direct GDP over the next decade, which equates to around 54 percent of one year's national Construction GDP output (PriceWaterhouseCoopers, 2011). This is based on the assumption that 70 percent of the initial estimated NZ\$20 billion costs are costs related to construction (PriceWaterhouseCoopers, 2011).

As Christchurch continues to experience an influx of work, leading players in the sector have diverted their attention to upcoming repair, maintenance and development jobs, in infrastructure and commercial construction alike. The overall estimated cost for infrastructure development alone for example, is approximately NZ\$2.2 billion (as of 2013, data last available) with five main contractors organisations already working in alliance with the local government (City Care, Downer Construction, Fletcher Construction, Fulton Hogan and McConnell Dowell), (Controller & Auditor General, 2013), to help reconstruct new infrastructure (Christchurch City Council, 2011; Fulton Hogan, 2013). It is unlikely that the civil construction sector in New Zealand has the capacity to absorb increases in activity of this scale without consequent impacts on the sector and the economy. The nature and extent of these impacts will depend on several factors; however analysts such as Price Waterhouse Coopers expect prices to increase across the sector as demand for construction services increases. It is also anticipated that this increased demand is likely to bring about growth in employment within the sector. Moreover, in light of the earthquakes both the government and the private sector are likely to defer other projects, especially in the international markets, as the primary focus will be now to direct financial and resource capacity towards the rebuild. In essence, the reconstruction of the city is likely to lead to significant growth in the sector and lead the sector into the upside of its boom-bust cycle. Considering the above discussion it can be stated:

*Proposition Seven: New Zealand civil construction firms will focus on the domestic market for the foreseeable future.*

### *3.4 Chapter Summary*

This chapter discussed five major theories that offer different viewpoints on the reasons and the processes of a firm's internationalisation. The theories discussed in the chapter suggest that firms internationalise either with the intent to exploit existing resources and capabilities or in pursuit of new resources. Both these perspectives are useful in explaining the internationalisation of New Zealand civil construction firms as most firms that have niche capabilities will tend to internationalise to capitalise on new opportunities in foreign markets. Also, New Zealand civil construction firms that have requisite capabilities but not necessarily the scale to service the target markets will create strategic partnerships that help them attain a competitive advantage in a given foreign market. Networking, an aspect covered by the Uppsala Model and Mathews LLL Model, is a primary activity through which New Zealand civil construction firms can gain market knowledge and experience as they often lack the expertise of operating in markets that are both distant and distinct in nature, compared to the ones that are close to their home market – for example, Australia and the Pacific Islands. Following a discussion on the main theoretical concepts, the chapter outlined the propositions of this research.

These propositions will help to answer research questions one and two of this study. Given the size of most firms in the New Zealand civil construction sector it is important to examine competitiveness in an international context. Hence, the first set of propositions will help evaluate whether ownership advantages and availability of resources (capital and human) are likely to affect the internationalisation of New Zealand civil construction firms. The second set of propositions will assist in understanding whether factors such as firm size, geographic and psychic distance can constraint the internationalisation of New Zealand civil construction firms. While the New Zealand construction sector experiences an unprecedented boom due to unforeseen events in the domestic market, it becomes important to consider whether current and future work prospects in the domestic market are likely to influence the propensity of New Zealand civil construction firms to internationalise. The seven propositions defined in this chapter will be used to assess the findings of this research, which are discussed in Chapter 6.

## *Chapter 4 Research Methods*

### *4.1 Introduction*

The aim of any research endeavour is to acquire some sort of understanding through identification and analysis of a given issue at hand. This constitutes, an attempt to arrange or rearrange the complexities of the realities within which the research is being conducted and portray them in such a way to connect their various propositions systematically, thus extending the existing knowledge base. Fundamental to the whole process and the end product of any research is the portrayal of what is being studied (Abma, 2002; Henwood & Pidgeon, 1992; Mantzoukas, 2004; Polit & Hungler, 1999; Sarantakos, 1998).

The concept of the portrayal or representation of the subject or object of a research study becomes the nucleus of any research. Events, situations, behaviour and relationships must be rationally and contiguously inferred as mental representations. However, this fundamental process of representation of ideas or concepts can be misunderstood if the researcher fails to present the analysis as intended (Cohen, Manion & Morrison, 2011). Therefore, it is important to establish appropriate techniques to safeguard the rigor and trustworthiness of the researcher's representation. Accordingly this chapter outlines the philosophical paradigm of this research and the techniques that were used in order to successfully conduct the study. In particular it discusses the importance of the case-study technique and how it is applied to this study. The chapter also outlines the techniques used in identifying participants and analysing primary data. Finally the chapter examines the reliability of the data and discusses ethical and confidentiality issues associated with the research.

## ***4.2 Research Paradigm***

The way in which the researcher conceptualises the means, production of knowledge and the relationship that exists between the enquirer and the participant regulates to a great degree what eventually is represented. Thus it can be suggested that a research study is guided by a researcher's ontological, epistemological and methodological assumptions (Allan & Skinner, 1991). The literature classifies the research paradigms into three main categories: positivist, critical and interpretivist (Cavana et al., 2001). Rooted in natural sciences, the positivist paradigm focuses on validating a priori hypotheses, often using quantitative data to express functional relationships with a data set (Guba & Lincoln, 1994; Johnson & Onwuegbuzie, 2004; McGrath & Johnson, 2003). In other words, a positivist research uses precise, objective measures to predict a given phenomenon. Social science researchers with a positivist perspective believe that social reality is objective and that human behaviour is scientific therefore predictable (Cavana et al., 2001). Knowledge claims made need to be reliable and are validated through appropriate empirical data. Given this stance, positivist researchers are objective and independent from the participants involved in the research (Ritchie & Lewis, 2003).

The main aim of a critical research paradigm is to uncover and go beyond the illusions of a social setting. The researcher believes that social reality has multiple layers with underlying meanings that are often hidden behind the observable surface reality. In this case, the critical researcher seeks to present research findings in a way that act as a catalyst and change the oppressive social reality (Cavana; et al., 2001; Orlikowski & Baroudi, 1991). Lastly, the interpretivist research paradigm believes that social reality is idiosyncratic. That is the construct of a given social setting is based on the subjective interpretations or the views of the people in that setting (Ponterotto, 2005). The interpretivist researcher assumes that the world is largely what people perceive it to be. Reality therefore is socially constructed. An interpretivist researcher thus believes that a social phenomenon is best analysed and understood through the socially constructed meanings of the participants' rather than a researcher's perspective (Cavana et al., 2001; Ritchie & Lewis, 2003; Rowlands, 2003). This view also believes that truth is not always grounded in an objective reality.

The intention of this study is to present an in-depth analysis of the firm-specific advantages and key constraints that influence the ability of New Zealand civil construction firms to successfully internationalise. In other words this research aims to analyse the cause-effect linkages between the factors that may facilitate or constraint the internationalisation of New

Zealand civil construction firms. Given this objective, this study has a post-positivist research philosophy. Post-positivism is a contemporary research philosophy that encompasses perspectives from both the positivist and interpretivist paradigms. (Lincoln & Guba, 1985; Racher & Robinson, 2003). Post-positivism is similar to a positivist view in that it assumes that reality is objective and deterministic (Creswell, 2013). However, post-positivism also recognises that the understanding of that objective reality is very much determined by the researcher who is observing that reality (Clark, 1998; Letourneau & Allen, 1999). A post-positivist view allows a researcher to empirically test theories and/or propositions, therefore follows a deductive method to produce knowledge (Lincoln & Guba, 1985). Similar to the interpretivist paradigm, post-positivist researchers seek to increase the validity of their research by connecting themselves to the participants. This is done with the aim to better understand the participants and their experience (Guba, 1990). The term post-positivist rather than positivist is used to denote this approach because post-positivist researchers do not believe in a strict cause and effect. Rather these researchers recognise that all cause and effect is a probability that may or may not occur (Clark, 1998; Denscombe, 2007). Post positivists view an investigation as a series of logically related steps and believe in gathering multiple perspectives from a number of sources rather than relying on a single reality. Hence, while adopting a post-positivist view the researcher is likely to make use of multiple methods and sources for collecting and analysing data. The intention of using multiple sources of data collection and analysis is to provide a more precise depiction of the observed reality (Lincoln & Guba, 1985). A study that is undertaken from a post-positivist perspective is likely to undertake qualitative data collection and analysis methods (Lincoln & Guba, 1985; Creswell, 2013).

This study uses theories the OLI paradigm and the RBV as foundations for identifying how firm-specific advantages influence the ability of New Zealand civil construction firms to internationalise. In addition to these, the study also uses Mathews LLL Model, International Entrepreneurship, and the Uppsala Model. The concepts discussed in these theories help in examining the barriers faced by New Zealand civil construction firms when considering international operations in the target markets. These theories are used to validate the propositions that underpin this study. Given the study uses concepts from specific theories to deductively analyse the data gathered, it may be viewed post-positivist in nature (Eisenhardt, 1989; Kuhn, 1970). In addition to the literature, the researcher also intends to collect data from other secondary sources such as government and industry reports, websites and newspaper articles. Information gathered through these secondary sources and the literature will be used



to analyse and validate the primary data collected. Given that the study uses multiple sources for data collection and adopts qualitative methods of data analysis, this research takes a post-positivist perspective (Linking theories to methods).

Although the post positivist paradigm in some instances is criticised for a lack of rigour and statistical analysis, through the application of a systematic research approach it is possible to maintain a high degree of diligence. One such approach is the use of the strategies described by Glaser & Strauss (1967) leading to the development of grounded theory. However, a grounded theory is more suited to a study in which the intention is to form a new theory (Barney & Anselm, 1967; Denscombe, 2007; Glaser & Strauss, 1967; Strauss & Corbin, 1998) and does not suit this research. Nevertheless, theme-based analysis techniques rooted in the principle of grounded theory (a case-study approach) is a better method for data analysis compared to an empirical positivist approach, hence this study uses a case-study method to present the experiences and perspectives of executives of the New Zealand civil construction firms. The aim here is to uncover conscious and unconscious explanations that the executives have on the international competitiveness of their firm and the constraints associated with undertaking international operations in the target markets.

### *4.3 Relevance of New Zealand Civil Construction firms*

This study aims to examine the importance of firm-specific advantages as well as analyse the key constraints New Zealand civil construction firms face when considering opportunities in the area of infrastructure development within the target markets. Given the research aims New Zealand civil construction firms hold significant relevance to the research. A thoughtful selection of firms that met pre-determined criteria (such as size, resources, position in the domestic/international market and specialisations) provided a number of benefits including an opportunity to develop an understanding of the structure of the construction sector in New Zealand as a whole, the main products/services offered by the sector, the operational strategies used by firms both in the domestic and international markets and the role and importance of government support to the sector, factors that have not been examined so far in the literature.

For international businesses emerging markets offer a wealth of opportunities. Their size, high rate of growth, diverse cost and operating conditions mean that they feature strongly in the strategic planning of many multinational firms (Enderwick, 2007). As discussed in Chapter 2, infrastructure is a key part of the development of these economies. Infrastructure is both the cause and a consequence of economic growth making it a key aspect for the development of these markets. The target markets provide opportunities to New Zealand civil construction firms amongst other foreign businesses. New Zealand civil construction firms have an international reputation for their niche and hands on skills as well as technical expertise especially in the area of infrastructure development and could benefit from the growth experienced by this sector across the target markets. However, although these markets present significant opportunities they also have their own set of challenges. Moreover, government and business support framework in these countries is not well defined making it difficult for international firms in particular, to conduct operations in these markets. Thus businesses wanting to operate in these economies face challenges that are uncommon in the developed world.

These challenges are significant for New Zealand civil construction firms because a majority of the firms are comparatively small, poorly resourced and have limited experience of operating in dynamic environments. A further challenge is the scale of work that is offered by emerging markets. In many cases, particularly in sectors such as infrastructure, capital, resources, capability and experiences demands may be beyond most individual New Zealand firms. Unfortunately the existing literature on New Zealand firms presents few insights on facilitative policies that support the internationalisation of especially New Zealand civil construction firms

into target markets. Hence the research aims to analyse the role that firm-specific advantages play in facilitating the internationalisation of New Zealand civil construction firms in the target markets. This study also intends to identify the barriers that New Zealand civil construction firms are likely to face when considering operations in those markets. The research proposes to contribute to the design of effective policies that would support not only civil construction firms but other sectors in New Zealand to overcome these barriers. Lastly, the research seeks to make a theoretical contribution to the wider academic literature around internationalisation of small - medium size service firms within emerging markets and the challenges that they face.

#### *4.3.1 Selection of Participants*

The research design, which involves a detailed examination of the operational challenges and strategies of New Zealand civil construction firms in an international context, effectively created a restriction on the number of firms to be included. Criterion sampling involves reviewing and studying cases that meet some predetermined criterion of importance (Coyne, 1997; Patton, 1990; Sandelowski, 1995; Suri, 2011). This approach is frequently employed by research synthesists to construct a comprehensive understanding of all the cases that meet certain pre-determined criteria (Coyne, 1997; Patton, 1990; Suri, 2011). As the aim of this research is to analyse key constraints that New Zealand civil construction firms perceive while considering operations in target markets, firms were purposefully selected on the basis of certain characteristics which included size, resources, specialisations (especially in the area of Transport and Energy) and experience (domestic and/or international). The purposeful selection of a homogenous group of cases with the above mentioned criteria meant that New Zealand civil construction firms were central to this study. The key themes identified during the literature review formed the basis of the semi-structured interview questions (using open-ended questions).

In total 35 firms were identified for this study. These firms were split into two groups – Group A and Group B. Group A represented 18 civil construction firms. These firms were the largest construction and engineering firms in New Zealand. Group B, consisting of 17 firms, were small-medium sized organisations that had similar attributes and experiences to the firms in Group A. Further firms in Group B had collaborative links to firms in Group A as many of them had worked in partnership on various domestic and/or international projects. Of the 18 construction and engineering firms in Group A only eight firms (representing 45 percent of the total number of firms) agreed to participate in this study. Of the 17 firms from Group B, seven

firms agreed to participate (representing 41 percent of the total number of firms) bringing the total number of firms interviewed for this study to 15 firms. Two major events in the domestic market in 2011 (Christchurch Earthquake and Rugby World Cup) significantly affected the number of participants from the sector. This was because a majority of the firms in the sector were occupied with projects which were a result of the two events. With a total of 15 New Zealand-based firms operating primarily in the area of infrastructure development, the study of this industry as a representative population presented a challenging but manageable task. *(The sentence on opportunity cost has been removed).*

From a validity perspective, there were no clear differences between those firms which participated and those which did not participate, other than executives from the non-participating group viewed their firm's activity as either not entrepreneurial enough to consider emerging markets or were too pressed with other work commitments due to the events in the domestic market at the time. To strengthen the validity of the findings the researcher also interviewed five other participants who represented different government agencies, ministry and an industry body. The benefit of choosing participants with similar attributes was that replication and consistency of results were strengthened (Yin, 2009). The diversity of organisations within the sample (e.g. size, resources, specialisation and experience (both in the domestic and/or international market) also provided enhanced support for the generalisability of findings within the civil construction sector. The generalisability of the findings also provided the opportunity to relate the key themes to the literature on successful internationalisation of service firms into emerging markets.

Some exclusion is inevitable, the selection of firms and other agencies alike provided valuable insight into capabilities, resources and strategies of the New Zealand civil construction firms. Once the data was collated the author then conducted a within case analysis, which facilitated an embedded analysis. The use of multiple cases was decided on with the aim of strengthening the argument of this study and to help gather data that was detailed and rich to aid the development of conclusions and effective policies/strategies. An analysis of the cases provided insights into the operational challenges and strategies adopted by New Zealand civil construction firms when operating in an international context. It also helped identify the resources and capabilities that each firm possessed and helped understand duplication of activities. The study also assisted in comprehending the use of a collaborative approach amongst firms while considering dynamic and complex environments such as the target markets. Representatives from various government agencies and an industry body were also

interviewed. This assisted in understanding the support provided to firms while considering international operations. In addition to primary data, it was also important for the researcher to collate information from multiple secondary sources such as company, industry and government reports, newspaper articles and websites. A variety of sources helped ensure that the data collected would be substantial in volume and detailed as highlighted in table (4.1) below. This allowed the researcher to analyse cases with similar circumstances and validate the findings with the help of a range of primary and secondary data sources. This was done to with the intention of establishing confidence in the findings and subsequently strengthening the research. (*Volume of data*)

***Table 4.1 Sources of Data***

<b>Type of Data</b>	<b>Sources of Data</b>
<b>Primary</b>	New Zealand Civil Construction Firms (Interviews (15))
<b>Primary</b>	Government Agency (Interview(1))
<b>Primary</b>	Ministry (Interview(1))
<b>Primary</b>	Industry Body (Interview(1))
<b>Secondary</b>	Company Reports/Documents (Obtained during interviews)
<b>Secondary</b>	Government Reports and Industry (Obtained during interviews)
<b>Secondary</b>	Company, government and industry websites (Information on participants and industry trends (e.g. reports from Ministry of Business Innovation and Employment, Christchurch Earthquake Recovery Association, PriceWaterHouse Coopers))
<b>Secondary</b>	Newspaper and trade magazine articles (Information on participants and industry trends(e.g. New Zealand Herald, BRANZ))

#### **4.4 Interviews**

The importance of interviews lies in gaining an understanding of and potentially entering into, the experience of others (Patton, 1999). Thus, the opportunity to access the perspective of the respondents through direct interaction and inquiry was a fundamental benefit of the interviews conducted with executives of the selected firms. Consequent to obtaining verbal interest or confirmation from each in the relevant executives within the participating firm, a participant information sheet and participant consent form were sent to the appropriate individuals. Once written confirmation of participation was obtained, interviews were arranged. A researcher can use either structured or unstructured interviews to collect data. In case of a structured interview, the researcher enters the field with a set of pre-determined questions. The idea here is to use the interview questions as a standard instrument of collecting information from the participants (Bailey, 2007). Given the nature of a structured interview, the data collected can be biased and restrict the researcher from obtaining information beyond the scope of the interview questions. Unstructured interviews on the other hand offer greater flexibility and allow the researcher to collect detailed information from the participants (Cavana et.al, 2001). The type and the number of questions in an unstructured interview may vary amongst participants. Also, given that the interviews may lack structure, the participants are more likely to deviate from the questions. While the data collected using this method is rich, the information may be inconsistent with the research aim (Patton, 1990). Given the limitations of both structured and unstructured interviews, Patton (1990) states that semi-structured interviews are perhaps the best method of collecting data that is both rich and consistent with the aims of a given research. Semi-structured interviews provide the researcher a degree of flexibility whilst ensuring consistency in the data collected (Patton, 1990). Although the researcher may have a pre-determined interview questions, semi-structured interviews give the researcher flexibility to re-organise the order of the questions or if necessary, re-word the interview questions during the course of the interview. In doing so, the researcher can ensure consistency and flexibility within each interview and better engage with the participants (Patton, 1990). Additionally, semi-structured interviews can also open up new avenues of investigation that the researcher may not have foreseen.

In view of its merits, this study used semi-structured interviews. The interviews were scheduled over a seven-month period at the convenience of the respondents and involved visiting participating firms and organisations. The interviews were conducted in two stages. The researcher first conducted a pilot study with five firms to ensure that the questions raised were

valid from an industry perspective and the responses consistent. The pilot study was done over a period of two months from May 2011 to July 2011. Completion of this study and review of the data over a month (August 2011) allowed the researcher to ascertain the appropriateness of the questions asked during the interviews. Following the pilot study the researcher then carried out an additional 16 interviews (covering 10 firms, two government agencies and one industry body) over the next five months from September 2011 to January 2012.

Most of the interviews were located in Auckland. Three interviews were conducted over the phone as the participants were either not based in Auckland or were overseas at the time the interviews were scheduled. On-site interviews assisted the researcher in gaining an understanding of the firm's entrepreneurial and strategic activities from an insider's perspective and the elements central to and supportive of those activities. The respondents were a mix of senior executives and operational managers with significant experience in the New Zealand civil construction sector. In addition to the interviews with respondents from firms, five representatives from one government agency, one ministry and an industry body were also interviewed. The idea was to gain a government and industry perspective on the policy and regulatory issues around internationalisation of New Zealand civil construction firms. Given the participants were assured anonymity none of the individuals and organisations are identified in this study. A list of the respondents and their roles in the respective organisations is summarised in table 4.2 (below).

***Table 4.2 Details of Participants***

Organisations/Government Agencies/Industry Body	Number of Participants	Number of Interviews	Organisational Role of Participants
Firm A	1	1	General Manager
Firm B	1	1	Chairman
Firm C	1	1	Regional Director
Firm D	1	1	General Manager
Firm E	1	1	Project Manager
Firm F	1	1	Construction Manager
Firm G	1	1	Commercial Manager

Firm H	1	1	Owner/Principal Partner
Firm I	1	1	Client Executive
Firm J	1	1	Managing Director
Firm K	2	2	Managing Director and Group Leader
Firm L	1	1	Associate Director
Firm M	1	1	General Manager
Firm N	1	1	Senior Quantity Surveyor
Firm O	1	1	CEO/Director
Agency 1	2	1	Programme Manager and Strategic Research Analyst
Agency 2	1	1	Economist
Industry Body 1	2	1	Director and Industry Development Manager

The questionnaire (please refer to Appendix I) served as a framework for guiding the interviews. The questions were divided into three main categories: a) the size and capabilities of the firm b) resources of the firm; and c) international experience of the firm and future strategic direction. The idea was to keep each of the categories broad to accommodate a range of questions that would address the different situations relevant to each activity being examined, but also appropriately specific to establish consistency and enable cross-case comparison. In most cases the questionnaire served that purpose well, such that questions could be tailored to individual participants, background research could be incorporated and confirmed, and respondents had the opportunity to raise additional points which they considered relevant. In one case, the interview questions were requested in advance which made the interview very structured and rigid, limiting the information that was discussed as the respondent engaged only in limited discussion on questions that were provided. The issues which were not specifically detailed in the questionnaire were not addressed and the respondent also disregarded questions they did not wish talk about. However this was not common as most



respondents were quite willingly to provide information and openly expressed their views. In cases where they were not certain or did not wish to provide definite comments, respondents adopted a more pragmatic approach stating they did not have strong views on specific issues (e.g. lack of international activity within the sector, role of government agencies in facilitating internationalisation).

The interviews were recorded to assure that the volume and the richness of the data were captured as intended. An interview typically lasted for about 45 minutes to an hour. These were then transcribed and analysed. The transcripts were reviewed by the respondents only in two cases and any changes requested adhered to. A majority of the respondents did not wish to review the transcripts as they were happy with the initial discussions that took place during the interviews. Practices widely adopted in the literature were integrated in the process of interviewing. This included providing brief prefatory statements and explanations as to why specific questions were being raised (Patton, 1990) structuring questions as neutral and open-ended, mirroring in questions and answers, and reminding the respondents of the confidentiality option at both the individual and organisational level. In addition, feedback (both verbal and non-verbal) was given during the course of the interview, to assure the respondents that their responses were both relevant and useful to the research, where appropriate. This was done with the aim of establishing a relaxed and open environment, such that respondents seemed comfortable to respond openly to the questions raised. Essentially this environment was achieved and was reflected in both the content and nature of the responses, evidenced by respondents' informal language, disclosure of confidential details and, at times forthright explanations of difficulties faced by respective organisations within the domestic market. The respondents in some instances openly acknowledged they could not personally answer the questions raised. This was particularly the case when questioned about the long-term strategic direction around international operations especially in the target markets. Since the interviews were conducted with a variety of individuals in different organisational environments, extensive notes were taken during the interview process. Accordingly, field notes constitute the third source of data within the case studies.

#### ***4.5 Data Analysis***

Collation of the primary data (interviews) occurred one and half years after the study first commenced and was conducted over a period of seven months. In an effort to maintain a methodical approach, the data analysis was essentially seen as an iterative process which involved repeated review of data, together with an on-going review of related literature and propositions, which led to refinement of findings over an extensive period. The idea of a cumulative analysis of the data collated is that it allows a researcher to identify and establish relationships, draw conclusions and understand the phenomenon under study more clearly (Hycner, 1985). The analysis of the data was done through the use of various resources and research techniques. Prior to conducting the interviews, permission was sort from the respondents to record the discussion, either in writing or in audio. In one instance the respondent did not allow the researcher to record the conversation. Hence, the conversation was recorded in the form of notes that researcher took down during the interview.

Once all the interviews were completed the recordings were then passed onto a professional transcriber for transcription and subsequently reviewed by the researcher. This involved preliminary analysis as well as making amendments for minor errors and omissions. This was based on comparisons with the original recordings. While transcriptions provided the opportunity for data to be reviewed and confirmed by individual respondents thereby enhancing validity they also ensured completeness of data collection from the interview. Thus, the review of transcripts enabled a logical investigation and interpretation of details obtained during each interview from a micro (within case) and macro (cross case) perspective. It also allowed the researcher to establish over riding themes that were common across all the interviews. A detailed review of the transcripts also helped reveal significant additional data and depth of information which in some cases had not been noted by the researcher during the actual interviews.

The data analysis technique used in this study is content analysis (Strauss & Corbin, 1998). Content analysis is a common method of analysing qualitative data and is often used for case study research to examine the textual data collected during field work (for example interviews) (Strauss & Corbin, 1998; Silverman, 2013). Content analysis involves systematic evaluation of the data to establish patterns and themes in the data. Rooted in content analysis is the thematic coding process (Silverman, 2013). Thematic coding implies organising field data into categories or themes that emerge from the data and relating these to the theoretical concepts used in a study (Silverman, 2013). Organising the data into themes requires a researcher to use

an open coding process. Open coding is used to classify large amount of raw data into categories or themes. The themes stem from repetitive perspectives, viewpoints as well as differences that are identified by the researcher through a methodical coding process of the data (Strauss & Corbin, 1998). The data analysis used in this research involved a thematic coding process based on open coding (Strauss & Corbin, 1998). The data collected was coded primarily using themes derived from the five theories used in this study. The transcripts were repeatedly reviewed allowing the researcher to undertake a thorough and meticulous analysis of the data from different angles (e.g. size of the firms, resources, specialisations, nature of operations conducted, domestic and international experience amongst other factors). Further, it allowed analysis to focus on data in part or in full, while ultimately preserving the completeness and accuracy of the interview data. The recording of interviews was used to match rather than substitute the field notes taken during each interview. Accordingly, analysis of transcripts immediately after the relevant interviews focused on verbal communication during the interview, while analysis of non-verbal interview data together with issues making strong initial impressions during the interview were recorded through notes taken during and directly after each interview. The transcripts were then printed and coded manually to establish the major and minor themes across the interviews. Upon identification, the themes and their occurrence were signposted. This allowed the researcher to translate, interpret and expand on the data as well as help determine the core themes from the data as seen in table 4.3 below.

**Table 4.3 Coding: Key Theories and Core Themes**

Key Theoretical Concepts Used in the Study	Primary Data	Core Themes
Mathews LLL Model (Mathews, 2002, 2006) + International Entrepreneurship (Oviatt & McDougall, 1994) (firm size & impact on internationalisation)	<i>“If we go into a foreign country and some of the engineering consultants in Indonesia for example are not small – they are a couple of thousand people. So when you think about it, their companies are huge and that can be a disadvantage.” (Chairman Firm B)</i>  <i>“I think we’re too small for that, we have limited resources, both people and finances to consider something like this... Director Firm L</i>	Firm Size
International Entrepreneurship (Oviatt & McDougall, 1994) (international orientation)	<i>“I don’t think the construction sector gets, you know, motivated to go into Australia or South-East Asia for the purpose of trying to beat the locals at their own game, on their own patch, so much. You could be good but I don’t think that would be good enough to beat a local Indian or Chinese</i>	Attitude of Management – Position in the Domestic Market vs Foreign Market, Operational Experience/ Experiential Knowledge
Uppsala Model		Importance of Internationalisation –

(Johanson & Vahlne, 1977; Johanson & Vahlne, 2009) (experiential knowledge)	<i>company on their home soil.” (Director Firm J)</i>	Domestic Opportunities vs International Opportunities
Mathews LLL Model (Linkage-Leverage-Learning)	<i>“Overseas and domestic work are direct substitutes, pursuing overseas work could come at the cost of losing out on upcoming projects in New Zealand.” (CEO/Director Firm O)</i> <i>“So I think there’s no secret there and we just try and leverage off our partners like anybody else would with their own partners. But yeah, they help you accelerate market entry, they know who the people are. So it’s quite key for us, finding the right partner.” (General Manager Firm A)</i>	Importance of Networks (Linkage-Leverage-Learning)
OLI Framework (Dunning, 1977, 1980) (Firm specific capabilities)	<i>“So Kuala Lumpur is one good example and we won that typically because I think ultimately we understood the client’s requirements better than what they did and we looked at some innovative solutions outside what would be considered the norm and I think that’s actually what gave us the edge over our competitors, and we actually beat some very big international companies for that tender.” (General Manager Firm A)</i>	Competitiveness of the Firms – Firm specific capabilities
OLI Framework (Dunning, 1998) RBV (Barney, 1991) (Firm specific resource – human resource)	<i>“The only capital – the only resources are actually your people and how well you do, is very dependent on the quality of the people.” (Chairman Firm B)</i>	Importance of Firm specific Resources  Human Resource + Financial Resource
RBV (Barney, 1991) (Firm specific resources – financial)	<i>“Infrastructure projects carry huge financial risk, the work undertaken in these markets is large scale and that requires capital.” (General Manager Firm D)</i>	
Institutional Theory (DiMaggio & Powell, 1983)	<i>“The risk to a certain extent of government involvements, bureaucracy and red tape can be a significant issue that a company would need to get their head around given the fact that they may have little to no knowledge about that foreign market.(Construction Manager Firm F)</i>	Differences in Institutional and Market Factors
Uppsala Model (Establishment Chain – expansion based on geographic and psychic distance) (Johanson & Vahlne, 1977; Johanson & Vahlne, 2009)	<i>“The answer is really distance. It’s a big disadvantage for New Zealand firms trying to get into Asia... it’s a 10½ hour flight – 10 hour flight to Singapore. It’s a 14-15 hour flight to Shanghai. (Chairman Firm B)</i> <i>“Setting up operations in Asia is very expensive. The Islands are much closer... have similar market structure like New Zealand so it’s easier to operate there.” (Commercial Manager Firm G)</i>	Geographic and Psychic Distance

The interview transcripts provided the opportunity to identify themes reflected in the comments of respondents, and more importantly, the concepts underlying these themes. This process was particularly valuable as the respondents seemed to openly discuss their firm's activities and the associated factors they considered important around maintaining strong growth and position in the domestic market. The core themes were identified from the data and the literature, or refined based on the analysis of the data, as seen in table 4.3. The table provides an example of how the researcher coded data to determine the emergent themes from the interviews. Each interview was systematically coded to the appropriate theme that emerged as a result of a deductive comparison of the data with the theories used in this study. Constant comparison of the coded data segments with each other enabled the researcher to define the properties and dimensions of each themes using more detailed codes. Where a new theme deductively emerged from the data analysis process, relevant literature was drawn upon and incorporated into the coding in subsequent data. A characteristic of open coding is that it often results into a large number of themes (Strauss & Corbin, 1998). More detailed coding allowed the researcher to identify a number of themes relating to firm size, attitude of management, access to resources, level of innovation, capabilities, geographic and psychic distance and acceptance of risk.

One of the main aspects of a study is to identify research questions that underpin that study. Indeed the research questions are at the centre of a study providing the researcher direction to address the aim of a study (Yin, 2009). Similarly, identifying relevant theories allow the researcher to better define the research questions and assist in interpreting the data. This study has two research aims. Firstly this study aims to analyse how the competitive advantages of New Zealand civil construction firms can be deployed to address the key resource and capability demands of the infrastructure sector in the target markets. In order to address this aim, the first research question of this study is: *How do firm-specific advantages influence the international competitiveness of New Zealand civil construction firms?* The second research aim of this study is to examine the constraints faced by New Zealand civil construction firms in internationalising operations. Accordingly, the second research question of this study is: *What are the key barriers that New Zealand civil construction firms face when considering operations in the target markets?* The research questions were critical in informing the data collection and analysis of the multiple cases presented in this study (Strauss & Corbin, 1998).

***Table 4.4 Categorisation and Presentation of Case Summaries***

Categories of Case Summary	Key Areas
Overview of the Firm/Government Agency/ Industry Body	Core Business Activities
Size	Firm Size
Market Focus	Geographic Focus (extent of international operations)
Mode of Entry	Mode of Internationalisation (Project/Contract/FDI)
Firm Specific Advantages (capabilities and resources)	Capabilities and Resources (human resource and financial)
Perceived Barriers	Bureaucracy/Red Tape, Institutional Factors, Firm Size, Geographic Distance, Human/Financial Resources, Corruption, Level of Competition and Lack of Market knowledge/experience
Role of Government Agencies	Interaction with government agencies and industry body

Once initial interviews had been conducted, case summaries were prepared in a consistent format and details were added as appropriate. Headings used to present case summaries were a useful tool for cataloguing and comparing data. This is highlighted in table 4.4 above. (\*Further details on all the case summaries are appended. Please refer to Appendix II). This approach to data analysis assisted in identifying common and underlying themes, as well as establishing a systematic basis for comparability which highlighted both similarities and differences among the cases. Analysis and findings then provided a basis from which generalisations could be drawn, as well as highlighting additional themes which emerged from the cases. Chapter 5 presents case summaries of a select respondent firms.

#### ***4.6 Case Study Approach***

Given its exploratory nature, this research adopts a qualitative research methodology. There are three reasons for using this methodology. Firstly, qualitative research works well with the post-positivist paradigm used in this study (Cavana et al., 2001). Secondly, as stated earlier, given the exploratory nature of this research, this study suits a qualitative research approach (Yin, 2009). Also, a qualitative approach allows the researcher to gain a better understanding of a phenomenon which has limited research. This methodology allows a researcher to uncover views and the perceptions of participants, which perhaps may not be revealed by solely using quantitative methods (Briggs & Coleman, 2005; Denzin & Lincoln, 2005; Strauss & Corbin, 1998). Finally, as qualitative research is associated with ‘how’ and ‘what’ questions (Yin, 2009), a qualitative research approach is best suited for addressing the research aims of this study.

The essence of a case study, is that it tries to illuminate a decision or a set of decisions: why the decisions are taken, how those are implemented and with what outcome (Yin, 2009). Keeping this in mind, the case study research design is appropriate for a number of reasons. First, a case study is deemed a suitable research strategy when the proposed research addresses a contemporary phenomenon, especially when the boundaries between phenomenon and context studied are not clearly defined (Yin, 2009). Second, case studies allow the researcher to answer ‘how’ and ‘what’ questions in order to gain a better understanding of the nature of the phenomenon that is being investigated (Yin, 2009). In an effort to answer the ‘how’ and ‘what’ questions raised in this study, it was important collect primary data which helped observe and analyse the phenomenon of interest; that is, a) how do firm-specific advantages influence the ability of New Zealand civil construction firms to internationalise in the target markets and b) what are the key barriers that New Zealand civil construction firms face when considering operations in the target markets. Third, case studies are an appropriate research method where the research is largely exploratory and is conducted in an area in which there is limited understanding (Benbasat, et al., 1987; Berg, 2007; Darke, et al., 1998). Furthermore, a case study method it is well suited for a study when the contextual conditions are pertinent to the phenomenon of the inquiry (Yin, 2009). Finally, a case study research is a form of bricolage, piecing together data from multiple sources to obtain a clearer picture of the research topic (Eisenhardt, 1989; Denzin & Lincoln, 2005; Yin, 2009). In other words, a case study allows for rich and comprehensive data to be captured which allows a researcher to develop a thorough understanding of the research context that is being examined (Yin, 2009).

The literature identifies three types of case studies: instrumental, intrinsic and collective case studies. It is proposed that the purpose and nature of a research will dictate the type of case study that is used by the researcher (Stake, 1995). Of the three approaches, this research adopts a collective study approach. A collective case study typically incorporates a coordinated set of multiple case studies (Stake, 1995; Yin, 2009). A collective or a multiple case study design allows a researcher to explore a particular context or phenomenon of interest in various settings (Darke et. al., 1998). Additionally, a multiple case study design also allows for a cross-case analysis to better analyse the context of research (Yin, 2009). One of the main advantages of a multiple-case study design is that it allows the researcher to establish patterns through replication of the data across the set of cases. This replication increases the researcher's confidence in the interpretation and the vigour of the data (Yin, 2009). As current literature on New Zealand firms presents limited insights into facilitative policies that support the internationalisation of New Zealand civil construction firms into target markets, this study adopts a multiple case study method. This is achieved by interviewing 15 New Zealand civil construction firms that represent similar characteristics in terms of size, resources, capabilities and operational backgrounds. In addition, to ensure validity of the information data is also collated from five other participants who represent two government agencies and an industry body. The method is adopted with the aim of presenting an in-depth understanding of the key strategic and operational issues New Zealand civil construction firms are most likely to encounter when considering international operations.

Further the idea of representativeness is expressed through Yin's insistence on "multiple sources of evidence". The implication is that researchers can be more confident of their findings when many informants offer the same conclusions. They are also reassured that they are on the right path when different types of evidence (e.g. observation, interviews and documentary sources) point in the same direction (Creswell, 2013; Miles & Huberman, 1994; Patton, 1990). This approach is also termed as "triangulation". Sayer (1992, pg. 223) describes triangulation as a process in search of inconsistencies, mis-specifications and omissions. The idea is that through triangulation a researcher will be more confident that inconsistencies in the data have been resolved, mis-specifications erased and omissions avoided (Llewellyn & Northcott, 2007). One of the most common ways to achieve data triangulation in a qualitative study is through methodical triangulation (Denzin & Lincoln, 2005; Eisenhardt, 1989). This is where the researcher makes use of a combination of methods, sources and theories to collect data and provide corroborating evidence (Creswell, 2013; Miles & Huberman, 1994; Patton, 1990).



Typically triangulation of data involves corroborating evidence from different sources to shed light on a theme or perspective. When qualitative researchers locate evidence to document a theme in different sources of data, they are triangulating information and providing validity to their findings (Creswell, 2013). The idea here is to ensure the richness, rigour and validity of the data collected (Creswell, 2013; Silverman, 2013). In a case study approach, Yin states that if the researcher has analysed cases with similar circumstances and if the results of the cases support the same theory, confidence in the theory and subsequently the research is strengthened (Yin, 2009).

The triangulation of data in this study was achieved by combining sources of evidence. The data for this study was gathered through semi-structured interviews, documentation and theories. The findings discussed in this study (Chapter 5) are a result of data generated from the 21 interviews conducted with New Zealand civil construction firms, government agencies and an industry body as well as additional information that was gathered through secondary sources. The secondary sources comprised of company and government websites, company, industry and government reports, articles from newspapers and trade magazines and the five theories used in study. Information from the documents, articles and the theories was used to analyse and better understand the primary data that was gathered by the researcher through interviews. The intention here was to cross-check the reliability of the primary data.

All the 15 firms that were interviewed identified that the size of their firm was a big determinant of their internationalisation strategy and performance. Given the importance of this aspect, it was essential to triangulate this piece of information with relevant government and industry reports. In order to achieve this, the researcher looked at information specific to firm size and its impact on the internationalisation of New Zealand civil construction firms. The government and industry reports published by the Ministry of Business, Innovation and Employment and PriceWaterHouse Coopers respectively were particularly useful to validate the relation between firm size and the international performance of firms in the New Zealand civil construction sector. According to the reports, the New Zealand construction sector is a major employer in New Zealand and accounts for 10 percent of total businesses (Ministry of Business, Innovation and Employment, 2013; PriceWaterHouse Coopers, 2011). This aspect has an important implication. A higher proportion of businesses relative to employment indicates that the average firm size for this sector is smaller than that of other sectors in the economy. Nearly 70 percent of employees in the construction sector work at organisations with fewer than 20 employees with more than 50 percent working at organisations with nine or fewer employees

(Ministry of Business, Innovation and Employment, 2013; PriceWaterHouse Coopers, 2011). The construction sector is the fourth largest sector in New Zealand in terms of its share of workers employed at small businesses across the 19 top-level industries in New Zealand (PriceWaterhouseCoopers, 2011). As the average size of firms in this sector is small, it is likely that many firms lack the necessary resources to undertake international projects. In addition to the reports, concepts from Mathews LLL Model and the International Entrepreneurship literature also helped the researcher ensure the reliability of the relation between the size of a firm and its ability to internationalise. The researcher also drew upon the extant international business literature that debates the relationship between the size of a firm and its internationalisation. Such triangulation helped validate the reliability of the data collected. *(Example of how triangulation was achieved. For further information please refer to Appendix III)*

#### 4.7 Reliability and Validity of Data

A discussion as to how the chosen research methodology can achieve validity and reliability forms an integral part of any rigorous research effort. The quality of the research method, processes involved and findings thereof is based on the reliability and validity that is observed in the method and processes. Scientific techniques have been developed to address the scientific worth and rigour of qualitative research, in particular case study research (Riege, 2003). Accordingly this section presents aspects of the research design and procedures adopted to ensure consistency and reliability of the data. Four tests have been commonly used to establish the quality of any empirical research (Riege, 2003). As case studies are one form of such research, the four tests are also relevant to case studies (Creswell, 2013). Table 4.4 lists the four widely used tests and recommended case study tactic as well as a cross-reference to the phase of research when the tactic is to be used.

**Table 4.5 Case Study Tactics**

Tests	Case Study Tactic Used	Phase of Research
Construct Validity	Use of multiple sources of evidence	Data Collection
	Establish chain of evidence	
Reliability	Use of case study protocol	Data Collection
External Validity	Use of replication logic in multiple-	Research Design
	case studies	
Internal Validity	Pattern Matching	Data Analysis
	Explanation Building	

(Source: Creswell, 2013; Riege, 2003)

Considering the tactics stated in the above table a range of respondents (firms, government agencies and industry body) were approached in order to ensure that the data was collated from a variety of sources and also helped in establishing a chain of evidence from the different respondents. In addition, a range of cases also provided the opportunity for overlapped

collection, coding, and analysis of data facilitating flexibility within the systematic data collection and analysis process (Glaser & Strauss, 1967). Internal validity in the case study method seeks to establish a relationship that helps a researcher answer the questions “how” and “what” (Yin, 2009). In order to establish internal validity it is important that the researcher engage in pattern matching. This is an aspect of data analysis in case study research where the researcher establishes patterns and looks for a correspondence between two or more categories to establish consistency in the data that is gathered from a range of sources (Creswell, 2013).

Considering this, as stated earlier in section 4.4 a pilot study with five firms was conducted to in order to look for correspondence amongst the responses from a small group of industry respondents. Once this was established a number of categories (size of the firms, resources, specialisations, nature of operations conducted, domestic and international experience amongst other factors) were set and questions were further refined and framed accordingly. This also helped form certain propositions reflective of the issues that are typically faced by small-medium sized firms when considering international opportunities. Tying emergent findings and theory to literature both consistent and conflicting with those findings served to enhance and strengthen internal validity (Eisenhardt, 1989). With respect to case study research the main issue relating to internal validity is bias from the researcher as well as the respondents (Creswell, 2013). In order to achieve internal validity a conscious effort was made to limit personal bias and make reasonable allowances for respondent’s bias when analysing the data. Similar ethics were applied to data that was collected during observation. The very nature of a case study design also assists in reducing bias through the identification of similarities and differences within the various cases. Thus, divergent and at times contradictory data among the 18 cases (consisting of 15 firms, two government agencies and one industry body) required an open mind to uncover findings and rationalise common themes (Eisenhardt, 1989).

Use of multiple cases was done with the intention to establish external validity and reliability of the data. An initial invitation to 15 firms, two government agencies and one industry body effectively constrained variation with respect to case study subjects and helped sharpen external validity (Eisenhardt, 1989). Similarly, triangulation of data and replication of findings enhances confidence in the external validity of the findings (Eisenhardt, 1989). Further external validity of the study is also judged on the bases of the generalisability of the data. As discussed in section 4.3 the respondents were chosen for their similarities and differences which helped gain a better understanding of successful internationalisation of service firms into emerging markets. Although specific findings are representative of the organisations and the sector (civil

construction) examined, the broader findings and conclusions drawn from this study are viewed as being relevant to other industries in New Zealand. Considering this, the selection of organisations (especially the civil construction firms) with core commonalities gave the opportunity for replication and facilitated the generalisability of findings, thereby addressing external validity.

#### *4.8 Ethical and Confidentiality Issues*

On commencing the data collection the researcher was aware that the respondents (especially representatives from firms) may at times have felt were unable to answer questions that sought to gather confidential information about the company and its operations. When conducting the interviews steps were taken to ensure the research promoted openness, voluntarism, professionalism, privacy, and confidentiality. An ethics application was submitted to Auckland University of Technology (University) Ethics Committee in order to obtain approval for the proposed study. Upon approval (Ethics Application Number 11/93 dated 14 June 2011) firms of interest, government agencies and an industry body were recruited and informed about the research. Respondents were first presented with written information on the research and were verbally informed of the same prior to the interviews. Once a respondent had agreed to participate in the research (either via email or phone) they were provided with a Participant Information Sheet detailing the aims of the study, the reason why they were selected as a potential respondent and their rights to information prior to, and during, the interview.

The respondents were also made aware when discussing confidential information they had to right stop the interview or ask the researcher to keep the comments undisclosed. Information throughout this process was openly provided, participation was stressed as voluntary, and respondents were assured of confidentiality at an individual and organisational level. In addition, written consent was obtained at from each respondent the end of each interview. Throughout the research process, the researcher made a conscious effort to retain open communication with the respondents in question. Further regular updates were also provided to the respondents where appropriate. They were also advised once the research had been completed and were offered a copy of the final thesis. The findings and conclusions drawn from this research are principally based on the cooperative input of the respondents who kindly agreed to share their knowledge and experience as analysed by the researcher and interpreted within the relevant academic literature.

#### ***4.9 Chapter Summary***

The chapter outlined the methodology used to conduct this research. Given the nature of the research, the study adopted a case study method to collect data. This allowed the researcher to gain a deeper and richer understanding of the nature of the construction and engineering sector in New Zealand. The depth of analysis afforded by examining firms (representative of a homogenous, yet diverse group) government agencies and an industry body provided an opportunity for both individual and cross-case analysis and it also provided scope for replicating the findings that are central to this study. Further, evaluation of findings both cumulatively and collectively, will provide the opportunity to examine and extend themes in the context of subsequent case analyses, representing a foundation for proposing strategies and policy implications aimed at facilitating New Zealand civil construction firms. Following this, chapter five discusses the findings obtained by employing the methods and techniques detailed in this chapter.

## *Chapter 5 Findings*

### *5.1 Introduction*

The aim of this chapter is to present the main findings of this study. The findings presented in this chapter help answer the research questions of this research:

*Research Question 1: How do firm-specific advantages influence the international competitiveness of New Zealand civil construction firms?*

- 1.1 What role do firm-specific capabilities play in the successful internationalisation of New Zealand civil construction firms?*
- 1.2 How do firm-specific resources (namely capital and human resource) impact the internationalisation strategy of New Zealand civil construction firms?*
- 1.3 What role do networks play in assisting New Zealand civil construction in overcoming resource and market knowledge constraints in the target markets?*
- 1.4 How does firm-size effect the ability of New Zealand civil construction firms to develop and sustain a competitive advantage in an international setting?*

*Research Question 2: What are the key barriers that New Zealand civil construction firms face when considering operations in the target markets?*

- 2.1 How do psychic and geographic distance influence the internationalisation of New Zealand civil construction firms?*
- 2.2 What role does experiential knowledge play in the internationalisation of New Zealand civil construction firms?*
- 2.3 How does a stable domestic market affect the ability of New Zealand civil construction firms to undertake operations in the target markets?*

Accordingly, the chapter presents a detailed analysis of the main findings that were generated as result of the 21 interviews. This is done by conducting within case and cross-case analysis of the 21 interviews (consisting of 15 New Zealand civil construction firms, two government agencies and one industry body). The chapter also provides a sub-group analysis of the firms that have international experience in the target markets and compares these firms with those that have no prior or limited experience in the target markets.



## ***5.2 Background of the Participating Firms and Agencies***

The firms that were identified for this study were chosen on criteria that primarily looked at size, resources, specialisations, and domestic as well as international experience. Based on these criteria 35 New Zealand based firms were narrowed down as potential research participants. These firms were divided into two groups – Group A and Group B. Group A consisted of 18 firms and represented the largest civil construction firms in New Zealand. All the firms within this group specialised in the area of infrastructure development but are particularly known for their operational expertise in the area of Transport and Energy infrastructure. This group also includes some of the oldest civil construction firms in New Zealand. Given their size, this group of firms enjoy access to resources such as capital, labour, technology and supply chains not only in the domestic but also international markets. As only eight of the 18 firms agreed to participate in the study, the researcher selected another 17 firms (Group B) that had similar attributes and experiences to the firms in Group A.

The firms in Group B are medium-sized firms with most of them concentrating on the New Zealand market alone. Of the 17 firms in Group B, seven firms agreed to participate in this research. These seven firms had collaborative links to firms in Group A as many of them had worked in partnership on domestic as well, in some cases, international projects. Given that these seven firms are medium sized organisations, most of them have created a niche for themselves in the domestic market, a trait typical of many small-medium sized firms (Akoorie & Enderwick, 1992). The firms (in both the groups) specialise in Transport and Energy infrastructure and there are similarities in the services they offer. The main services offered by the 15 firms (Group A = Eight and Group B = Seven) consist of: road safety, traffic engineering, asset management and planning, network modelling, concept design, enhancement and operational improvement, architecture services, project management, multi model transport planning, rail operations, safety and reliability analysis, baggage and cargo handling, control solutions, wind farm development, hydraulic and civil engineering and geothermal reservoir management amongst other services.

In addition to the firms, five participants from a government agency and a ministry (Agency 1 and Agency 2) and one industry body (Industry body 1) were also interviewed. The primary role of Agency 1 is to provide international business support services to New Zealand civil construction firms. These services are designed to connect firms with opportunities in overseas markets and provide assistance in operating internationally. The type of assistance available varies depending on the location of the market, and the industry and the firm's level of

experience and capability. The agency achieves this through the provision of various programmes that are specifically tailored around the capabilities/specialisations of New Zealand civil construction firms and the issues faced by them when considering international markets. Of the various programmes, one programme that the agency offers is built around emerging markets with a strong focus on India and China. The programme gives firms access to advisors who help develop and execute a firm's international growth strategy in emerging markets. Firms accepted into the programme are assigned an advisor(s) who provides tailored mentoring and networking. In addition to India and China advisor networks are also available for North America, South America, Southeast Asia, the Middle East, Japan and Europe.

Agency 2 is responsible for protecting and promoting New Zealand's interests overseas. The agency is the government's lead source of advice on foreign and trade policy, international climate change negotiations, diplomatic and consular issues and international development assistance. The agency also provides legal advice on international issues and is the formal channel for the government's communications to and from other countries and international organisations. In order to achieve these goals the agency works with foreign governments and other international and non-government organisations in areas of mutual interest. It also leads initiatives on behalf of 'NZ Inc.' which primarily focuses on furthering New Zealand business interests in Southeast Asia.

The industry body that agreed to participate in this study is a not-for-profit research organisation dedicated to serving the needs of the engineering industry in New Zealand. While the emphasis of its activities is on heavy engineering, the industry body also services the wider metals industry interests such as light-gauge steel, stainless steels, light alloys and metals-based composites. Through its specialist staff it provides a combination of research, training, advisory, industry development and promotional services making it the national centre for metals-based product design, manufacturing technology and inspection and quality assurance. The major types of businesses represented by the industry body are metal fabrication, designers, suppliers and manufacturing firms. The principal aim of this body is to facilitate an internationally competitive New Zealand engineering industry and be the leading catalyst for innovation in the sector.

Given the functions that these organisations perform within the construction and engineering sector as well as the New Zealand economy, the input from the representative of each organisation was vital for this study. Having presented a brief background of the firms that

participated in this research the next section presents an in-depth analysis of the main findings of this research.

### **5.3 Within Case Analysis**

The two main aims of this research are: a) how firm-specific advantages influence the international competitiveness of New Zealand civil construction firms and b) what key barriers constraint internationalisation of New Zealand civil construction firms. Given the two research objectives, New Zealand civil construction firms hold significant relevance to this research. As stated in Chapter 4 – *Research Methods* – a thoughtful selection of firms that met pre-determined criteria (such as size, resources, position in the domestic/international market and services/capabilities offered) provided a number of benefits including an opportunity to develop an understanding of the structure of the civil construction sub-sector in New Zealand as a whole. The data collected as a result of the interviews and other secondary sources (such as company, industry and government reports, websites, newspaper articles) gives insight into the main services and capabilities offered by the sector, the operational strategies used by firms both in domestic and international markets, and the role of government support and its importance to the sub-sector, factors that have not been examined so far in the literature examining internationalisation of SMEs from resource based economies such as New Zealand.

Accordingly, the following section presents an in-depth analysis of four New Zealand civil construction firms. The analysis in this section outlines four exemplar case summaries of the 15 firms that were interviewed for this study. It should be noted that the cases discussed below serve as good examples of the main competencies that have earned the New Zealand civil construction sub-sector international repute. These four firms are also representative of the major barriers to internationalisation as identified by all the 15 firms. The exemplar cases are grouped into two categories: firms that have current operations in the target markets (Group A) and firms that are sceptical of operating in the target markets (Group B). The purpose of this within case analysis is to present the data as outlined by the participants of this study. The data in this section is presented as below:

- a) Firm size (small – medium – large),
- b) Core Competencies
- c) International experience and competitiveness
- d) Perceived barriers to internationalisation

Additionally, a within-case analysis of all the 15 firms as well as the government agencies and the industry body is presented in Appendix II.

### ***5.3.1 Group A***

Group A provides examples of two firms – Firms A and B – that have well-established operations in Asia.

#### ***Firm A***

##### ***Introduction***

From its inception, Firm A has delivered innovative solutions using best technology, whilst focusing on achieving optimum customer satisfaction with both its service and the performance of its systems. The firm is a leading service provider of air transport and logistics solutions in New Zealand. The firm has an annual turnover within range of NZ\$200 - 400 million and employs approximately 300 staff. The firm is classified as small.

##### ***Core Competencies***

The firm's expertise lies in delivering end to end solutions consisting of logistics hardware, automation controls and elegant software products that have made the firm the supplier of choice to airports, airlines and freight and industrial customers around the world. The firm has three business units: Airport Systems, Operations and Maintenance and Services and Solutions.

##### ***Market Focus***

The firm has extensive international operations encompassing the following regions: Australasia, North and Latin America, Asia, Europe, Africa and the Caribbean.

##### ***Perceived Challenges***

The firm has operated in Asia for a number of years and has extensive operations in the region. Nevertheless, the firm states as the markets in the region are constantly developing, the region presents a unique set of challenges. According to the firm, the most common issues experienced by foreign firms considering operations in the region include the following: resources (human resource and time), level of competition and networking.

##### ***Resources***

Of the various resources that a firm requires to succeed in a foreign market, Firm A identifies human resource and time as the two most important resources that have helped the firm in determining its success in Asia. Firstly, the General Manager of the firm states that finding the right knowledge and skills is an issue commonly faced by many construction and engineering firms that consider international projects. The ability of the staff to respond to a client's needs plays an important role in determining the ability of a firm to succeed in a foreign market. For

this reason the General Manager of the firm emphasises sourcing employees from the foreign market. Locally sourced staff according to him, can help the firm not only understand the dynamics of operating in that market, but also assist the firm in understanding the differing legalities that are normally associated with international infrastructure projects.

Although finding such talent can be time consuming, the General Manager states that it can help a firm gain a competitive advantage in a foreign environment as discussed in sub-section 5.4.1.2 (please refer to page 139). Also, time spent understanding a given foreign market is key to developing and sustaining long term business. The General Manager states that Asia is a very good example of a market where people talk about potential projects for a long time. According to him, making regular trips to markets of interest to meet up with potential clients has helped the firm not only to build a strong rapport with these clients but has also allowed the firm to better understand their requirements. Hence, the firm has invested significant time in building strong relationships with potential clientele which has allowed the firm to position itself as the preferred vendor across various markets in the region as discussed in sub-section 5.4.1.2 (please refer to pages 139-140).

#### *Ownership Advantages*

According to the General Manager, markets in Asia can be very competitive. Hence identifying a source of distinction is critical for any firm trying to source work in the region. Its ability to offer innovative and customised solutions has allowed the firm to source a number of projects in Asia. According to the General Manager, more recently the firm managed to beat some of the biggest international firms in Asia and secure a NZ\$ 30 million baggage systems and handling project. He also states that the scope of the project was much greater compared to previous jobs that the firm had undertaken at an international level, however, their expertise and innovation helped them win the project. He further states that given its size, the firm does not have significant resources to invest in research and development. However, the firm's strong organisational culture has allowed it to develop and offer innovative solutions which have helped it achieve success at a global scale. Details of this are discussed further in sub-section 5.4.1.1 (please refer to pages 139).

#### *Networking*

Networking with the local firms has played an important role in helping Firm A build its presence in Asia. Networking with local firms has facilitated Firm A in not only obtaining resources such as labour but has also assisted it in understanding the dynamics of operating in Asia. Local relationships, according to the General Manager, serve as an effective tool for

gathering both resources and knowledge, factors that are critical in determining a firm's success in a foreign market. He states that business in Asia is often built on relationships and local networks play a crucial role in assisting any firm, domestic or international source work in the region. The General Manager confirms that the firm's ability to develop effective relationships with local firms and key stakeholders is one of the primary factors behind the firm's success in Asia. In addition to sourcing market knowledge and resources, local networks have been critical in understanding the bureaucracy and the legalities associated with infrastructure projects.

### *Firm B*

#### *Introduction*

Firm B is one of the largest civil construction and engineering consultancies in the Asia-Pacific region. The firm has an established presence in New Zealand and is well known for providing services in the area of infrastructure design and development. The firm has an annual turnover within the range of NZ\$400-500 million and has approximately 3000 staff. The firm is classified as a large firm.

#### *Core Competencies*

As well as numerous engineering consultancy services, Firm B also offers services in architecture, planning, project and cost management, land information, earthquake engineering, transport infrastructure (in particular road construction), water treatment and energy solutions.

#### *Market Focus*

The firm has extensive international operations spanning markets in Australasia, Asia, Middle East and Eastern Europe. The firm has primarily relied on strategic alliances with local firms to build in-roads particularly in Asia, Eastern Europe and the Middle East. The firm has three main hubs – New Zealand, Australia and Asia.

#### *Perceived Challenges*

Given its international operations, the firm has a wealth of knowledge and experience of operating especially in Asia. The company has operated in the region for over four decades. The firm states that the markets in Asia present distinct challenges especially in the area of infrastructure development. Some of the main barriers identified by the firm include: human and financial resources, competitiveness, and firm size and geographic distance from major markets.

### *Human and Financial Resources*

According to the firm, human and financial resources are critical for any firm considering international operations, but play an important role especially for civil construction firms in particular. Given the dynamic nature of emerging markets in Asia, the firm emphasise the importance of recruiting the right talent when considering projects in those markets as discussed in sub-section 5.4.1.2 of this chapter (please refer to page 139). The firm states that sending ex-patriots from New Zealand to work on international projects may not be very sustainable from a commercial stand point. Also this type of recruitment strategy may not always allow a firm to gain an understanding of the foreign market. Therefore, the firm suggests that recruiting people from the foreign market is perhaps the best way to develop a good understanding of the local environment. This strategy has play a significant role in helping the firm develop operational expertise and manage projects in the target markets. Also, in order to retain talent, the firm has developed an ownership scheme that encourages staff to invest by purchasing a stake in the firm. This inclusive approach has helped the firm create a local identity in various foreign markets. The above points are illustrated further in sub-section 5.4.1.2 of this chapter (please refer to page 140). In addition to human resource, in order to consider international opportunities a firm often requires significant capital resources. Firm B supports this point and states that given their size most New Zealand civil construction firms may lack the capital that is required to undertake large scale projects in the target markets. The firm is also of the view that in order to succeed in the target markets, it is important that a firm understands and caters to the needs of clients. Developing such customised solutions, according to the executive, often requires substantial investment, both in terms of time and money.

### *Ownership Advantages*

A firm's ability to succeed in an international context is often determined by its competitiveness. Firm B shares this view and states that identifying a differentiator is critical for a firm to succeed especially in the emerging markets. Reasons for this as stated by the firm indicate that as most New Zealand civil construction firms are small, these firms cannot compete on the basis of price on an international scale. Hence creating a niche and offering customised solutions can be an effective mechanism to source work in the highly competitive emerging markets. Examples given by Firm B (sub-section 5.4.1.1, please refer to page 135) indicate that this strategy has played an integral role in determining its success in markets like China, India and Indonesia amongst others in the region. Given its technical expertise, especially in the area of seismic engineering and design, the firm has managed to create partnerships with many local firms which lack such know-how. These partnerships have not

only helped the firm in sourcing work but have also played an important role in helping the firm build a strong presence in many markets across Asia. Accordingly, the firm is of the view that niche capabilities can be source of competitive advantage for New Zealand civil construction firms especially when competing for work in an international setting.

#### *Firm Size and Geographic Distance*

The ability of the firm to successfully internationalise is often determined by its size. Smaller firms are often at a resource disadvantage compared to large firms (Buckley, 1988). Hence it is assumed that small firms often encounter greater difficulties in internationalising their operations compared to large firms (Van Horn, 1979). This view is shared by the Chairman of Firm B who states that given their size, most New Zealand civil construction firms are considered to be comparatively small on an international scale. This aspect, according to the Chairman, has a huge bearing on the lack of internationalisation of many New Zealand civil construction firms. He is of the view that as the New Zealand construction sector comprises a large number of small firms, these firms often lack key resources such as labour and capital to successfully undertake international projects. He further adds that the inability to control costs due to limited market power and access to appropriate resources make it difficult for New Zealand civil construction firms to establish their operations in international markets. Details of this are further illustrated in sub-section 5.4.3 (please refer to page 144). The points above suggest that smaller New Zealand civil construction firms may struggle to accrue the necessary financial and human resources required to successfully operate in international markets.

In addition to size, Firm B also states that the geographic distance between New Zealand and the target markets also plays an importance role in influencing the ability of the New Zealand civil construction firms to internationalise. The Chairman of the firm adds that firms often have to travel on a regular basis to a foreign market in order to better understand the market and its environment. Given that many New Zealand civil construction firms have limited financial resources, such extensive travel can be financially quite straining. Also, according to the Chairman, the difficulties of establishing a presence in the target markets is further escalated given the massive geographic distance between New Zealand and Asia, which makes the target markets seem a less attractive option to many New Zealand civil construction firms as discussed in sub-section 5.4.3 (please refer to page 146).



### ***5.3.2 Group B***

Group B provides examples of two firms – Firms D and F – that are sceptical of considering operations in Asia.

#### ***Firm D***

##### ***Introduction***

Firm D is a New Zealand based building materials manufacturer and distributor and is also a leading infrastructure, commercial engineering and building contractor, developing projects in New Zealand and the South Pacific. The firm is one of the oldest civil construction companies in New Zealand and enjoys a strong presence in the domestic market. With an annual turnover within range of NZ\$1-5 billion and over 4000 employees, the firm is classified as a very large firm in New Zealand.

##### ***Core Competencies***

The firm is a leading building materials manufacturer and distributor with operations in concrete, steel, access flooring systems, laminates and panels to mention a few. The firm also specialises in providing infrastructure development services in transport and energy. The main services include: structural design, build and engineering, planning and project management, marine works, and renewable energy solutions.

##### ***Market Focus***

Firm D has extensive international operations which include the following regions: Australasia, South Pacific, Europe, North America and Asia. It should be noted that the firm's presence in Asia is limited to a building materials manufacturer. The firm has not undertaken any infrastructure projects in the region.

##### ***Perceived Challenges***

Although the firm enjoys a strong international presence, it is very sceptical of considering infrastructure projects in Asia. International infrastructure projects, according to the firm, can be particularly challenging. The main barriers identified by the firm include: market and institutional factors, competitiveness and uncertainty.

##### ***Market and Institutional Factors***

Differences in market and institutional factors often make it difficult for firms to operate internationally (Marinova, 2014). According to the General Manager of the firm, these difficulties are escalated when a firm considers international infrastructure projects. According to the General Manager, infrastructure projects in the emerging Asia are often known to be bureaucratic; therefore the legalities associated with such projects can be quite complex to

understand. Also, dissimilarities in legalities between state and central governments in markets such as India, can be quite challenging to deal with, especially if the firm has no prior experience of operating in such a setting. Similarly the General Manager highlights that language differences can be a hindrance especially in markets such as China, Indonesia and Vietnam where English is not the official business language. As infrastructure projects are often known to have extensive red-tape, this simple aspect can be a major stumbling block for a foreign firm as interpretation of documents can be a difficult task without knowledge of the local language. Therefore, understanding the intricacies of doing business in these markets can be quite a challenge for many foreign firms. The General Manager is of the view that New Zealand civil construction firms may find these markets particularly challenging as many firms in the sector do not have necessarily have the experience or knowledge required to successfully operate in the target markets. Details of this are further discussed in sub-section 5.4.5 (please refer to page 152).

#### *Ability to Compete*

The General Manager of the firm states that markets such as China and India, can be very competitive, hence sourcing work in these markets can be quite challenging for New Zealand civil construction firms. According to him, as the international construction industry is price driven, New Zealand civil construction firms find it very difficult to compete on the basis of price. Hence, the executive states that it is critical that the firm understands the requirements of potential clients prior to considering operations in Asia. In addition to service differentiation, the General Manager suggests that the reputation of a firm is also critical in sourcing work. However, building such a presence, according to him, takes time and often requires significant financial investments. Also, there is a risk that governments and key stakeholders may prefer to give work to renowned local firms instead of foreign firms. Hence, identifying a niche and understanding the market is critical for a firm when considering operations in the target markets as discussed in sub-section 5.4.1.1 (please refer to page 141-142).

#### *Uncertainty*

Infrastructure projects in a foreign market can present an array of issues and there is a whole myriad of complexities that needs to be dealt with. According to the General Manager, the international construction market can be very volatile, hence undertaking projects in a foreign market can present a range of risks and uncertainties. In addition to market and institutional factors discussed earlier in this section, the General Manager also states that infrastructure

projects do have a high degree of financial risk. This aspect is particularly true for firms considering projects in markets such as India and China. Given the scale of work that is undertaken in these markets, firms are often required to make substantial financial investments. Making such large-scale investments can be quite challenging for New Zealand civil construction firms as given their size most firms in the sector have limited financial resources. Also, the ability of a firm to generate income from such investments can be challenging in a foreign market. Hence, lack of understanding of associated risks, according to the General Manager of the firm, can sometimes result into significant financial losses for the firms involved as outlined in sub-section 5.4.2 (please refer to page 148). This aspect is particularly relevant for New Zealand civil construction firms as they may not always have the financial capacity to incur such losses. He further adds that learning from the firm's past international experience, the firm is very sceptical of undertaking infrastructure projects in the target markets. Details of this are discussed in sub-section 5.4.2 (please refer to page 148).

#### *Firm F*

##### *Introduction*

Firm F is a well-established provider of construction services. From its beginnings as a small building company, the firm has evolved to become a significant commercial construction company in New Zealand. With an annual turnover within range of NZ\$100-200 million and approximately 150 staff, the firm is classified as a small firm.

##### *Core Competencies*

Firm F is one of New Zealand's most well-established construction firms. Amongst other services the firm specialises in the following: commercial construction, property developments, joinery and asset maintenance.

##### *Market Focus*

The firm has been established in New Zealand for over 40 years and only operates in the domestic market.

##### *Perceived Challenges*

Although the firm enjoys a strong presence in New Zealand, it is very sceptical of considering international operations, especially in Asia. According to the firm, undertaking construction projects is a challenging both in a domestic and international setting. However the risks associated with such work are escalated in a foreign market for a given firm, especially if the firm lacks experiential knowledge and resources required to operate in that environment.

Accordingly the key barriers identified by Firm F are: lack of human and financial resources and lack of experiential knowledge.

#### *Lack of Human and Financial Resources*

Finding and recruiting the right skills especially for international projects can be quite challenging, particularly if the firm has no knowledge on how to best source labour in a given foreign market. This point is supported by Firm F which states that sourcing employees with the right skills can be particularly difficult in a foreign market as a firm may not always know the local environment and the talent that is available in that market. The Construction Manager of the firm further adds that as the work undertaken in the sector is project based, it often becomes difficult to retain skilled staff beyond the duration of a given project. He also states that locally sourced staff may not always match the project requirements. Given that infrastructure projects usually have tight timelines, training or upskilling local staff to meet the requirements of a particular project may not always be feasible and can be an added expense as discussed in sub-section 5.4.1.2 (please refer to pages 144). The Construction Manager states that making such investments is beyond the firm's current financial resources.

#### *Lack of Experiential Knowledge*

A firm's ability to effectively operate in an international setting is often determined by its experiential knowledge. The executive from Firm F agrees with this perspective and states that lack of experiential knowledge is one of the primary reasons for the firm to not consider operations in Asia. According to him, setting up operations in a foreign market can be very difficult if a firm does not have the experience of operating at an international scale. Also, the dynamics of the emerging markets present distinct market and institutional challenges. These challenges, according to the Construction Manager, can be particularly difficult to overcome if the firm has little or no knowledge about these markets. The Construction Manager further adds that it may be difficult for the firm to operate in Asia, as the markets in the region may have their own idiosyncrasies of how to best conduct and manage business, which the firm may not be necessarily aware of.

Local partners may help a firm overcome some of the issues, at least in the early stages of setting up operations in these markets, however the Construction Manager states that identifying a partner firm requires extensive networking and can be very time consuming. Also as the projects undertaken in these markets are large, the firm may find it difficult to source work without the right connections in the local market. The level of government involvement in infrastructure projects also means that the projects often have extensive bureaucracy and red

tape which can be a significant issue for a foreign firm, especially if the firm lacks the knowledge required to successfully conduct operations in that market. For these the reasons outlined in this section, the firm does not see any incentive to pursue operations in the target markets. This is discussed further in sub-section 5.4.3 (please refer to page 152).

### *5.4 Cross Case Analysis*

This section discusses and compares the responses of the participants across the 18 cases. The aim of this section is to present a comparative analysis of the main findings across the 15 firms, two government agencies and one industry body. The section also evaluates firms that have current operations in the target markets versus firms that do not operate in these markets. In doing so the aim is to analyse the reasons for considering international markets, and to assess if services/capabilities offered, resources and/or size, are primary factors that ensure a firm's competitiveness in a foreign market. The section also examines the level of international experience that New Zealand civil construction firms have and the main barriers that they identify with. Strategies used by firms to overcome those barriers are also discussed.

This analysis is presented in the following order:

- a) Competitiveness of the Firms
- b) Importance of Financial and Human Resources
- c) Firm Size and Geographic Distance,
- d) Importance of the Domestic Market,
- e) Corruption and Bureaucracy,
- f) Role of Government agencies

### 5.4.1 Firm Specific Advantages and Competitiveness

#### 5.4.1.1 Ownership Advantages

A firm's ability to compete successfully is not only important in its home market but especially in an international setting.

**Table 5.1 Main Capabilities**

Capabilities	Number of Firms Offering those Capabilities
Road Infrastructure	5
Water/Waste Water Treatment	4
Earthquake Engineering	3
Environmental Sustainable Architecture & Urban Design	2
Material/Baggage Handling & Airport Systems Technology	3
Traffic Engineering & Network Modelling	2
Construction Insurance Broker & Risk Advisor	1
Project Development and Management (from start to finish)	1
Design & Build	1
Energy Conservation	1
Cost Engineering	1
Pre-Construction and Technical Advisory, Construction, Design and Project Management of Vital Infrastructure Assets in the Iron Ore, Gas & Coal Sectors.	1

Analysis of international contractors suggests that the types of capabilities they create are specialised (Enderwick, 1989). This means that civil construction firms are likely to develop highly specific competencies. This aspect is true in the case of New Zealand civil construction firms as well. As outlined in the table, nine out of 15 New Zealand civil construction firms have capabilities in developing and maintaining road infrastructure and water and wastewater treatment. Firms in the sector also specialise in the areas of earthquake engineering, environmental sustainable architecture and urban design, material/baggage handling and airport systems technology and traffic engineering and network modelling. However, given there are only 35 firms operating in the heavy engineering and civil construction sub-sector in New Zealand, the firms although specialised, have comparable capabilities. In addition to capabilities, firms gain a competitive advantage through their reputation and price (Dunning,

1989, Seymour, 1989). Indeed, firm specific advantages are “a firm’s capacity to deploy resources, usually in combination, using organisational processes, to affect a desired end in source of quote” (Amit & Schoemaker, 1993). Firm specific advantages considered to be strategic if they are specifically possessed by an organisation (Teece et al., 1997; Weissenberger-Eibl & Schwenk, 2009; Zaheer & Bell, 2005). Nelson and Winter (1982) contend that firm specific advantages can help an organisation develop sustainable competitive advantage through leveraging organisational routines and processes that are unique to that business.

Accordingly, firms build firm specific advantages to adapt, integrate and renew their resources in response to changing environments or markets. Hence identifying factors that give the firm a competitive advantage becomes critical for understanding internationalisation. This view is also supported by the findings of this study as the ability to compete effectively in international markets is identified as a challenge by 53 percent of the firms (eight firms). Executives from eight of the 15 firms suggest that it is often difficult to create a point of difference in a foreign market if a firm has limited resources particularly finance and human resources. The Chairman of Firm B, for example states that for any firm to successfully source work in Asia, it is critical for the firm to identify its niche before entering the region. When questioned why this aspect was critical for New Zealand civil construction firms, he was of the view that it is important that a firm creates a differentiator that would allow the firm to set itself apart from the rest of the firms that offer similar services in the market.

*The last part is particularly true for the Asian markets of today, in the 70’s probably there was an advantage but today the kind of things that are done in Asia are huge and not very many New Zealand companies will actually have any kind of differentiator... So – for another New Zealand company to come up to Asia and there’d be 500 people in Asia like us today – it would be very, very, very, very, very tough.” (Chairman Firm B)*

Given their size, competing on the basis of price alone may not always be feasible for New Zealand civil construction firms. The Chairman of Firm B also states that New Zealand civil construction firms that consider operations in Asia need to understand that the market is very different to New Zealand and that firms need to customise their offerings to suit local market requirements. The services and capabilities offered by New Zealand civil construction firms especially in the areas of traffic engineering, road infrastructure, earthquake engineering, airport infrastructure and material, cargo and baggage handling systems are well recognised in Asian markets. Firms A, B, and K in particular have managed to successfully market their



expertise in the areas of cargo, material and baggage handling systems (Firm A), and road infrastructure, seismic design and earthquake engineering (Firms B and K) particularly in markets like India, China, Indonesia, Vietnam and Malaysia. Firm H has managed to create a name for itself in the area of urban design and sustainable architecture especially in India. Firm C specialises in the area of pre-construction and technical advisory in India. The five firms emphasise the importance of customising their service offerings to suit the requirements of clients and the markets.

The General Manager of Firm A explains

*“So Kuala Lumpur is one good example and we won that typically because I think ultimately we understood the client’s requirements better than what they did and we looked at some innovative solutions outside what would be considered the norm and I think that’s actually what gave us the edge over our competitors, and we actually beat some very big international companies for that tender.” (General Manager Firm A)*

The General Manager (Firm A) states that his firm managed to secure work in one of the markets in Asia simply because the firm had the requisite technology that none of the other competitors possessed. Understanding the client’s requirements well and then customising the solution to meet these needs meant that the company managed to beat bigger players and secure the project. According to the executive given the size of the job, the firm would not normally have considered the project; as the scope of the project was much larger compared to previous jobs that the firm had undertaken at an international level. However, their know-how and innovation helped them win the NZ\$30 million baggage systems and handling job. The firm acknowledges that compared to other international firms, the firm does not have significant resources to invest in research and development. However, a strong corporate culture has allowed the firm to develop and offer innovative solutions which have ultimately helped it succeed on an international scale.

*“We’re not as big as some of them, we don’t have the R&D, resources, which some of the bigger players have, but I think our strong culture, particularly at our Auckland office, allows us to constantly innovate and it does help us succeed in different markets.” (General Manager Firm A)*

The firm also states that time spent in understanding both the environment and the clients has also helped the firm to better position itself to source work in the target markets.

*“Asia’s a very good example of that where people talk about projects for a long time and we actually spend quite a number of years positioning ourselves for the projects so when they do happen we’re in a position to win it.”(General Manager Firm A)*

Similarly, information from the five respondents also indicates that New Zealand construction and engineering expertise in the area of infrastructure and civil construction is well regarded by both governments and local businesses in the target markets. The principal partner of Firm H states that the firm has managed to create roads in India by rendering services in master planning (urban design). The firm was approached by a representative from India to work alongside another local firm leading the project in India. The firm has also worked on other international projects in Asia and in most cases was invited by either agents or international firms to work on the projects because of their innovation and technical capability. The points discussed indicate that governments in the target markets may be more receptive towards foreign firms when those firms bring valuable skills and know-how that may not be available in the domestic market.

Apart from competitive ability, size of the local firms in the target markets could at times make it difficult for New Zealand civil construction firms to source and compete for work in those markets.

*“If we go into a foreign country and some of the engineering consultants in Indonesia for example are not small – they are a couple of thousand people. So when you think about it, their companies are huge and that can be a disadvantage.” (Chairman Firm B)*

However, the executives from the five firms state that time spent understanding the requirements of the clients and the market can help develop relationships or networks that help foreign firm in the long term. These networks and relationships can assist a firm to capitalise on opportunities that these markets have to offer. The General Manager of Firm A explains

*“Relationships. One word is relationships. Anything with international business is about relationships. People ultimately will do work with people they like and if you have the relationships then you generally have the knowledge and resources. If you don’t have the knowledge then you don’t necessarily have the relationship. So that’s generally the biggest KPI for us is relationships.” (General Manager Firm A)*

The respondents also state that it is important to have a long term focus when operating in the target markets. This view, however, is not shared by other respondents. The extent of local

competition in the target markets is a major concern for three firms (Firms J, L and M). The Managing Director of Firm J best explains this issue:

*“I don’t think the construction sector gets, you know, motivated to go into Australia or South-East Asia for the purpose of trying to beat the locals at their own game, on their own patch, so much. You could be good but I don’t think that would be good enough to beat a local Indian or Chinese company on their home soil.” (Director Firm J)*

The General Manager of Firm D states that the history of New Zealand civil construction firms trying to successfully internationalise is not particularly bright. Reasons for that, according to him, are unclear, but he was of the view that limited international experience and knowledge could be perhaps a factor for many firms in the sector to not consider operations in the target markets. He also thinks it is important that, regardless of the industry, a firm carve a niche for itself in the domestic market before considering foreign opportunities. Further, the CEO/Director of Firm O states that the inability of a firm to market its expertise well in a foreign market could cost the firm not only its reputation but also potential clients and key partners. The General Manager of Firm D and the CEO/Director of Firm O also state that given the scale of development and the projects undertaken especially in the area of infrastructure, New Zealand civil construction firms may find it difficult to establish a presence without any significant differentiator, a view also shared by the Chairman of Firm B earlier in this section.

*“It’s about being very clear about what exactly is your competitive advantage, what you are actually bringing to customers. I think, its business basics about knowing your market, knowing your customer.” (General Manager Firm D)*

The executive from Firm O is also of the view that as governments have opened markets to both local and international firms, the level of competition is high making it very tough for New Zealand civil construction firms to successfully compete for work. The General Manager of Firm D is also of the view that local governments in the target markets may prefer to give work to local as opposed to foreign firms.

*“It’s just like here, you’re building a bridge and you want to know that the person has built the bridge before. And the state probably has a preference for local companies as well. Be it formal or informal or whatever. It’s just natural; it’s just the way it is. Now if you’d always rather deal with the guy down the road....” (General Manager Firm D)*

In addition to competing on the basis of service differentiation this point suggests that the reputation of a firm is critical to sourcing work. Indeed, reputation and experience of operating in a foreign market play a vital role for firms in the construction sector.

#### *5.4.1.2 Importance of Human and Financial Resources*

Undertaking operations in an international market often requires significant resources, in particular capital and human resources. This view is shared by the respondents of this study. Raising the requisite capital to operate in a foreign market and finding the right skills are identified as major issues by nine of the 15 firms (60 percent). Respondents state that getting the right staff is often a challenge as it is hard sourcing the required skills. The executives also believe that the quality of human resources plays a critical role in success in a foreign market. The respondents from these firms see human resources as a unique asset to a company and the skills and knowledge they possess is vital, particularly in construction. Employees in a foreign market can help a firm better understand the market and the clients. Also local staff in an international setting can help understand the legalities of doing business in that market. Hence, obtaining people that have experience is critical for a firm setting up operations in a foreign market. Three firms (Firms A, B and K) that have current operations in the target markets support this point and suggest that when considering international projects, hiring locals with appropriate skills could be one way to deal with the staffing problem.

*“Mostly, I guess nine times out of ten the people we hire, they would be people already established in the country that actually work within the client base that we’re targeting.”*  
(General Manager Firm A)

*“In Kuala Lumpur, we’ve now established an office and we’re actually seen as local and have local people there. Yeah.”* (General Manager Firm A)

*“The only capital – the only resources are actually your people and how well you do, is very dependent on the quality of the people. And the drive that they have is pushing the company forward.”*(Chairman Firm B)

*“It would be, more the key principals, so they’re specialist people, and we’ve utilised local resources.”* (Managing Director Firm K)

Indeed, executives from the three firms (General Manager Firm A, Chairman Firm B and Managing Director Firm K) state that how well a firm does in an international market is dependent on the quality of the human resource at hand. In the case of Firm B, the Chairman sits on the board of various technical and educational institutes in one of the markets in Asia.

This has helped the firm to understand local talent and develop it to suit the needs of the firm in that market. The three respondents are also of the view that employing local people could give the firm a better understanding of the requirements in a foreign market and help the firm gain a competitive advantage over other firms. In terms of attracting and retaining quality human resources the Chairman of Firm B states that the firm has adopted an inclusive approach where the founders of the company have initiated an ownership scheme that encourages senior management to invest in the company by purchasing its shares. This strategy has been central to developing an effective incentive system where the employees across different subsidiaries are seen as an integral asset to the firm. This in turn has created a culture where the employees see the firm as a local entity.

Apart from the right skills and local market knowledge, the executives also suggest that it is important that employees are incorporated into management to better develop a firm's operational strategy. When questioned about contracting New Zealand expatriates for international projects, two executives (Managing Director Firm K and Chairman Firm B) were of the view that it is critical that the expatriates maintain a broad mind-set when assisting on projects in foreign markets. In particular the Managing Director of Firm K states that it is important that the employees that are deployed from New Zealand to work on overseas projects are commercially driven and technically very sound. It is also imperative that the expatriates work alongside their foreign subordinates and incorporate working practices that best suit the foreign environment. In order to ensure success the two executives also mention that whilst working in the target markets it is essential for the expatriates to move away from a New Zealand centric state of mind and understand that what works (work culture, products/services, market strategies) in New Zealand may not always be accepted in a foreign market. According to them this aspect is crucial as the attitude of the expatriates can be critical in making or breaking new prospects. This point is also supported by the General Manager (Firm A) and Regional Director (Firm C) who emphasise that it is vital for a firm to acquire and develop staff with the right skill set that best suit the needs of the project and the market.

However, this view is not shared by executives of four firms (Firms F, G, L and M). Executives from these four firms believe that in order to source and develop the right staff it is important that a firm invests capital which can be an issue especially with limited finances. The four executives are also of the view that if their staff were deployed overseas that would create a shortage of skills in on-going domestic projects. In particular, the General Manager of Firm M is of the view that the Christchurch rebuild is going to stretch existing human resources in the

sector. The other issue with appropriate staffing is the very nature of the sector. The Construction Manager of Firm F states that the “boom and bust” cycle experienced by the sector prohibits firms from projecting labour requirements for given projects in advance. Further, the Construction Manager (Firm F), Associate Director (Firm L) and General Manager (Firm M) also indicate that they find it challenging to upgrade their skill base as money spent on training and professional development is often determined by the cycle experienced by the sector. As a result firms in the sector find it difficult to retain quality staff and the sector is noted for having one of the highest rates of employee turnovers in New Zealand. The Construction Manager (Firm F) also states that firms in New Zealand often lose their staff to Australia as the market is more lucrative which makes it harder for the firms in the sector to attract, develop and retain employees. When considering international markets, the executive is of the view that often it is too hard for a company to source the right talent as the environment of a foreign market can often be difficult to understand.

*“I just think it’s too hard. I’ve heard of, there was recently a New Zealand construction company that’s gone to Papua New Guinea, finding it very very difficult. Because you know, it’s a totally different environment, they can’t get any workers, they can’t, you know, it’s a big ask.”(Construction Manager Firm F)*

*“Well really, it’s construction knowledge and skills. Building, you’ve got to have the skills to build you’ve got to have the skills to lead a design team, so you need a design team to actually produce the product that the client’s after, and then for the required budget. If the local staff don’t have the required skills, then training is an option. However it can be quite time consuming and may not be possible at times, also this is an added cost.” (Construction Manager Firm F)*

Lastly, one of the executives (Commercial Manager (Firm G)) also states that when considering overseas opportunities, it is challenging for the firm to convince their existing staff to relocate to another country for lifestyle reasons, which makes it difficult for the firm to deploy employees with the required skill sets from New Zealand to a foreign market. He is also of the view that in the past the firm has found it difficult to source local employees with the right skills in a foreign market. In addition to human resources, the four firms (Firms F, G, L and M) also state that given the size of the organisations, their firms lack much needed capital to consider opportunities beyond New Zealand. Two respondents, (General Manager Firm M and Associate Director Firm L) in particular state that the kind of infrastructure projects undertaken in markets like India and China are enormous and require significant cash flow. According to

the respondents this aspect can be quite challenging for New Zealand civil construction firms as given their size most firms in the sector have limited financial resources. Also the ability of a firm to generate revenues from such investments can be particularly difficult in a foreign market. The General Manager of Firm D and Firm M further state that often there is also a fear of losing out on investments made in markets such as India and China.

*“You’d probably find that most of the companies are very nervous about actually getting paid in markets like China and India. You don’t always get your money when you come out of there. So that’s probably going to slow their thoughts down about going overseas.” (General Manager Firm M)*

*“Infrastructure projects carry huge financial risk, the work undertaken in these markets is large scale and that requires capital. If the project is deferred, due to unforeseen circumstances, then the risk of losing out on investments is high. It may not always be possible to bear such losses.” (General Manager Firm D)*

This view is further supported by the Chairman of Firm B who states that given their size New Zealand civil construction firms may not always have the financial resources to undertake large scale projects in Asia.

*“The scale of projects in Asia is huge, so a company, be it New Zealand or from elsewhere needs to be financially sound, which is always not the case with our firms.” (Chairman Firm B)*

The firm further adds that in order to succeed in the target markets it is important that a firm offers services that suit the clients’ requirements. Offering customised services, according to firm, often requires significant time and money.

*“Also catering to clients in New Zealand compared to Asia is very different, you need money, time and people to build presence and reputation in these markets.” (Chairman Firm B)*

Based on the analysis in this section, it can be concluded that the limited availability of finance and human resources are reasons why New Zealand civil construction firms are reluctant to consider opportunities in the target markets.

### 5.4.2 Firm Size and Geographic Distance

The average size of the firms that were interviewed varied from small to very large. As seen in the tables below, the firms were classified both on the basis of annual turnover and number of employees.

**Table 5.2 Firm Size – Annual Turnover (NZ\$ 2011)**

Size (Annual Turnover)	0 – 40 < Million	40 – 100 Million	100 – 300 Million	300 – 500 Million	0 – 5 billion	10 billion >	Total
Number of firms	1	2	3	4	4	1	15
Percentage of total	7%	13%	20%	27%	27%	7%	100

**Table 5.3 Firm Size – Number of Employees (2011)**

Size (Number of Employees)	0 – 100	100 – 300	300 - 500	1000 - 3000	3000 - 5000	Total
Number of firms	2	4	1	4	4	15
Percentage of total	13%	27%	7%	27%	27%	100

Two of the firms (Firm J and L) are small firms that employ less than 100 staff. Five firms (Firms A, F, H, M and O) can be classified as medium sized organisations employing between 100-500 staff, while four firms (Firms B, C, G and N) are large organisations employing between 1000-3000. Four firms (Firms D, E, I and K) are the largest amongst the 15 firms employing between 3000-5000 staff. The relationship between firm size and ability to internationalise is an important one. Amongst other factors, size of the firm was identified as a major barrier while considering international operations by executives of Firms B, F L and M. Executives from Firms F and L in particular state that given the size of their organisations, it would not be practical for them to consider operations beyond New Zealand. When questioned



how size of the organisation affects that decision, the executives from both the firms pointed out that small size means that they have limited resources, especially capital and human resource, two factors they consider critical when considering work overseas, especially in Asia.

*“I think we’re too small for that, we have limited resources, both people and finances to consider something like this... But who knows, and I think you’d really need to understand those markets. So we haven’t at this stage, but the possibility...” (Director Firm L)*

*“Given our operations, I think it comes down to cost and human resources, you need to be of a certain size, have resources to consider operations in Asia...” (Construction Manager Firm F)*

This view was supported by the Chairman of Firm B who states that often New Zealand civil construction firms lack necessary resources, particularly capital and human resource to invest and build a presence in Asia.

*“Often when New Zealand civil construction firms come to Asia, they realise that the market is big and they are comparatively small, to be noticed. Also catering to clients in New Zealand compared to Asia is very different, you need money, time and people to build presence and reputation in these markets. Aspects, which I think New Zealand civil construction firms don’t always own.” (Chairman Firm B)*

The CEO/Director of Firm O is of the view that it was important for the sector to develop its capabilities to a world class standard before deciding to pursue overseas opportunities. He states that the New Zealand construction sector in some respects is an outlier when it comes to world best practices, suggesting that lack of capital and limited availability of human resource could be the main factors likely to constrain success internationally and that both of these factors are related to size of the firms in the sector. According to him, limited finances in particular, constrain the investments made by New Zealand civil construction firms not only in the domestic market but also impacts on their ability to venture overseas. He also states that as most of the firms in the sector restrict their operations to the domestic market there is little possibility for them to raise the requisite foreign capital.

In addition to size of the firm, geographic distance was also seen as a barrier that might prevent New Zealand civil construction firms from considering operations in the target markets. Geographic distance often becomes a vital aspect for firms when considering international markets. Literature on internationalisation advocates that firms often tend to first internationalise in markets that are close to the firm’s home market and gradually enter markets

that are further away. As seen in the table below, this aspect appears to be true for New Zealand civil construction firms.

***Table 5.4 Geographic Focus***

Market Focus	Number of firms
Australasia (Australia, NZ & Papua New Guinea)	10
Pacific Islands (Fiji, Samoa, Tonga, Cook Islands)	8
Developing Asia (South East Asia, China & India)	10
Middle East (Dubai & Abu Dhabi)	4
Latin America (Brazil & Mexico)	3
North America	3
Europe	6

Data in table 5.4 exhibits that 11 out of 15 firms (73 percent of the total firms) operate in Australasia and eight out of 15 firms (53 percent) operate in the Pacific Islands. This suggests that firms in the sector predominately focus on markets close to New Zealand. Although there is significant interest in the opportunities in Developing Asia with 10 of the 15 firms (66 percent) operating in the region, the work undertaken is mainly on a project basis and three of the ten firms have a fragmented approach and a limited presence in the region. Of the 10 firms that operate in Developing Asia, only one (Firm B) has an office in the market. The reason for

this fragmented approach is best explained by the Chairman of Firm B who states that the time taken and money spent travelling to Asia alone can be a challenge for some of the firms in the sector.

*“The answer is really distance. It’s a big disadvantage for New Zealand civil construction firms trying to get into Asia – it’s a 10½ hour flight – 10 hour flight to Singapore. It’s a 14-15 hour flight to Shanghai. Also money is a factor, travelling to Asia every so often – which is required especially in the early stages when setting up operations – is not cheap. So it’s quite a hindrance for us to go overseas.” (Chairman Firm B)*

Three firms (Firms F, L and M) have no international operations. When asked why they had not considered markets in Asia, the three respondents suggest that apart from size, another important factor is the distance between New Zealand and Asia. According to them, given the geographic distance, it is difficult to establish a presence in the region, especially with limited financial resources. Similar views were also shared by the Commercial Manager of Firm G who states that it is a costly exercise to set up operations in Asia.

*“Setting up operations in Asia is very expensive. The Islands are much closer... have similar market structure like New Zealand so it’s easier to operate there.” (Commercial Manager Firm G)*

Given the distinct differences between New Zealand and the target markets, understanding market factors can be very challenging for a firm. Additional information gathered was also indicative of the fact that the four respondents (Firms F, G, L and M) are relatively comfortable with their positions in the domestic market and would need very strong incentives to consider opportunities beyond New Zealand.

### 5.4.3 Importance of Domestic Market

The domestic market is a primary source of work for New Zealand civil construction firms. Government spending plays a critical role in developing infrastructure in any given country. Firms in the New Zealand construction sector tend to focus on the domestic market in the hope of gaining from opportunities created by the government. Government initiated projects in particular are often seen as a more reliant source of obtaining constant work. Indeed, infrastructure projects initiated by the state and local government authorities are the main reason that most firms in the civil construction sub-sector have been engaged in productive work during the financial crisis. This view is supported by the findings of this study with 60 percent (nine firms) of respondents emphasising the importance of work in the domestic market. Typical of this was the Commercial Manager of Firm G who states

*“99% of what we look at is in New Zealand. We see that that’s our important market. We have historically done some work in the Pacific Islands and do undertake work there time to time but that is not our primary focus.”*

The CEO/Director of Firm O believes that overseas and domestic work were direct substitutes as pursuing overseas work could come at the cost of losing out on upcoming projects in the domestic market. This view was also shared by the Director of Firm J who states that it can take up to five years for a firm to see any substantial returns from investments in foreign markets and this could affect the firm’s ability to invest in the domestic market. Pursuing overseas opportunities instead of concentrating on the domestic market is not worthwhile for the firm. Further, executives from Firm F and L are also of the view that it is far more profitable and safer for them to focus on domestic projects than lose out on overseas projects. This strong focus on the domestic market seemed to be primarily due to government initiated infrastructure development over the period 2010 to 2011 in the lead up to New Zealand hosting the Rugby World Cup.

In addition to this the Christchurch earthquakes and subsequent rebuild of the city has created unforeseen work for the firms in the sector. As the city is re-built over the next few years projects across the country have been cancelled or deferred pending determinations of capital requirements in Christchurch. According to the General Manager of Firm M, the total value of the rebuild will be approximately NZ\$20 billion.

*“Christchurch I think’s going to be 10 years of work; it’s got \$20 billion worth of work to do down there so you can see it’s going to stretch the resources in this country.” (General Manager Firm M)*

According to him, work in Christchurch is likely to stretch existing resources both in terms of capital and human resources. These developments in the domestic market make international opportunities less attractive. He is also of the view that sourcing work overseas could mean forgoing existing relationships in the domestic market. This is critical for the respondent firms as relationships are crucial to sourcing work in the domestic market. The Associate Director of Firm L states that the New Zealand construction and engineering sector is quite tight-knit and heavily reliant on networking. According to him, work is often sourced through recommendations from clients based on the firm's past work history. This point is also supported by the Construction Manager of Firm F. Due to this most firms have a level of job security as clients often prefer the same firms that have worked for them in the past.

Another reason to concentrate on the domestic market is the uncertainty associated with sourcing work overseas. The director of Firm J for example states that many times potential clients seem to consult international firms to gather an understanding of the services that the firm can offer. However the firm often loses the project to a competitor that has possible connections with either the client or has the backing of the foreign government. Firms find it quite frustrating to put in the effort and not achieve the desired outcome. This can be discouraging for firms considering international opportunities especially if it comes at the cost of losing out on domestic projects. The General Manager of Firm M argues that it is important for New Zealand civil construction firms to have a strong domestic market position prior to considering international markets.

*"We need to be able to control here first before we start spreading our wings." (General Manager Firm M)*

He is also of the view that often firms do not get paid on time and pursuing clients for payment, especially in a foreign market can be quite challenging. This view is also shared by the General Manager of Firm D who states that the international construction market can be very volatile. Hence, undertaking infrastructure projects at an international scale may be risky. For this reason, he suggests that it is better for the firm to concentrate on the domestic market, which provides a degree of stability and is less risk evasive.

*"We have been in Australia in the past, maybe over a decade ago, and from the basis of that experience the decision is, it's much better to have just a New Zealand focussed business. Construction's a highly volatile market and the view is that you're much better to keep in close to where your core is." (General Manager Firm D)*

However, three executives representing firms (Firm A, B and H) that have operations in the target markets have a different perspective. They state that although there is always the risk of losing out on domestic work when considering opportunities, nevertheless in order to ensure long term growth and profitability it is important for a firm to think big and look beyond the immediate market.

The costs involved while conducting operations in complex environments like the target markets is also a barrier identified by five firms (Firm F, G, J, L and O). Costs due to added logistics, as well as those associated with setting up a presence in that market, were seen to be significant when considering international operations. Foreign firms need to invest in understanding new markets, set up distribution channels, develop a reputation and tailor product or service offerings to the requirements of that particular market. Considering this, 33 percent (five firms) of the respondents are of the view that establishing such a presence can be time consuming and expensive for any firm, but particularly for New Zealand civil construction firms as they tend to be small when compared to other international players operating in the target markets. According to the Construction Manager of Firm F the cost of setting up operations is a primary factor for not considering the target markets.

*“Well, it’s just often you go overseas and it’s a difficult environment, because you don’t know, for a start, to actually, to set up an office in another country is quite a big cost. And you don’t know the market, so unless you have some sort of particular need to go there, then no. Basically because of the cost and because of the uncertainty.” (Construction Manager Firm F)*

The risk associated with making investments to scale up the operations would also escalate if there were any uncertainty around subsequent business in that market. There is a presumption here that the establishment of a permanent local base in a foreign market may be a prerequisite in order to customise construction services to suit local context and compete effectively. These costs mean that only firms with sufficient capital may be able to move into the target markets. However, a permanent presence may not always be required. Firm H for example, has managed to source work in markets like India and China by partnering with local firms and works for clients in both markets on a contract basis. The principal partner of the firm states that working for clients by partnering with local firms has helped the firm not only overcome issues around initial start-up costs, but has also helped the firm better understand the clients and nature of work required and expected in those markets. This strategy has allowed the firm to decide

whether it wants to pursue further opportunities in these markets and also allowed the firm to establish a network in a foreign setting.

Considering the points discussed in this section, it can be said that apart from the fear of losing their position in the domestic market, lack of foreign market experience, knowledge and capital have confined many firms in the sector to the domestic market.

#### 5.4.4 Corruption and Bureaucracy

Dealing with bribery and corruption has always been a challenge for companies in the construction and infrastructure sector in emerging markets. The awarding of contracts and obtaining of planning permits create particular bribery and corruption risks, with many of the enforcement cases in the public domain relating to these areas. These issues are important not only for domestic firms but especially for foreign firms considering operations in emerging markets. The findings of this study suggest that levels of corruption in the target markets is a major issue for both firms that have current operations and for those thinking of expanding their business in the target markets. Executives from five firms (Firms A, B, H, J and K) state that bribery and money laundering are widespread and can be particularly challenging for foreign firms to deal with as most foreign firms may not always have the requisite knowledge of how to best operate in the target markets. The Director of Firm J in particular states that unethical practices observed around infrastructure projects has been a primary reason for deciding against extending the firm's business to the target markets as such practices do not conform to the moral principles of the company.

*"A lot of bribery, corruption, that sort of thing, and it just doesn't sit with our sort of ethical values. One is the legality of some of the ways they do business. The place that we go to has to be above board, and completely, you know, good probity around everything they do. A lot of countries around there don't have that." (Director Firm J)*

Often the awarding of contracts and obtaining the necessary permits at various stages of a particular project can be associated with deep seated bribery that may be observed both at state and local government level. Developing strategies to effectively overcome this issue can be particularly challenging for a firm in a foreign market, especially if the firm has limited or no experience of operating in that setting. This point is supported by executives of four firms (Firms A, B, H and K) who are of the view that this issue is difficult to overcome for any firm, domestic or international. According to them this aspect of the target markets although difficult, can be overcome with the help of local partner firms or agents that understand the dynamics of operating in such environments. The General Manager of Firm A states:

*"I think it's like any international business – they understand who the decision-makers are and they help you get to those people sooner than later. So I think there's no secret there and we just try and leverage off our partners like anybody else would with their own partners. But yeah, they help you accelerate market entry, they know who the people are. So it's quite key for us, finding the right partner." (General Manager Firm A)*



Apart from corruption, extensive red tape linked to infrastructure projects can also be of concern to firms considering operations in the target markets. The executives from six firms (Firms A, B, C, H, I and K) state that infrastructure projects are often riddled with extensive paperwork and understanding the forms and procedures can be quite a challenge. Further requirements of the necessary documentation may vary from one project to the next which often means that there is a lot of duplication of papers. This can be quite problematic for a firm to deal with and requires a thorough understanding of the project and related paperwork. The Principal Partner of Firm H explains:

*“Oh, there’s a bit of bureaucracy. When you’re going into something for the first time, you come across little bits of bureaucracy that you read in little things, little forms. Indians love bureaucracy. Well, it keeps the employment levels up. So there are more forms and duplicates and different coloured copies and there are more boxes to tick and more stamps to get, but it’s alright, we have managed to get around this with the help of local agents and our partners there.” (Principal Partner Firm H)*

According to him use of local agents or partner firms is the best way to help simplify this problem as they can better direct and assist a foreign firm understand the necessary procedures. Local agents/partner firms are particularly important when considering operations in the target markets as variances in state/central government processes may be explicit and at times complicated for a foreign firm to understand, especially if the firm has little or no knowledge of operating in such settings.

A further eight firms (Firms A, B, C, D, F, I, K and N) state that market factors which include political, legal and cultural (primarily language) differences can also be of concern to foreign firms when operating in the target markets. The respondents from the eight firms state that given the dynamic nature of the target markets, dissimilarities in legalities between state/central governments and different political systems can be challenging to deal with. The Construction Manager of Firm F states:

*“The risk to a certain extent of government involvements, bureaucracy and red tape can be a significant issue that a company would need to get their head around given the fact that they may have little to no knowledge about that foreign market.” (Construction Manager Firm F)*

The Regional Director of Firm C further supports this point and states that it is relatively easier for the firm to deal with these aspects in markets like India as the business language and, to an extent, the legal system is similar to that of New Zealand. However, if the firm was to consider

markets like China, aspects like language, the legal system and the political environment are significantly different and so operating in these markets can become quite challenging. The executives also highlight that language differences can be a huge problem in markets like China, Indonesia and Vietnam where the official business language is not English. Translation of the necessary paperwork therefore can be quite challenging especially if the firm has no knowledge of the local language. This point is reiterated by the General Manager of Firm D, who states that in addition to legal and political factors, language differences can be a hindrance for a firm in a foreign market. Given the level of paperwork that surrounds infrastructure projects, this simple aspect can become a major impediment for a firm. Both the executives emphasise the importance of a local agent/partner firm and suggest that local assistance is a must to deal with this barrier.

In addition to the issues discussed above, given the investments required in infrastructure projects, firms often carry the risk of large sunken costs should the project fail due to unforeseen circumstances. Considering this risk, insurance cover plays a very important role to help protect the financial interests of a firm, especially in an international context. One of the respondents (Client Executive, Firm I) shares this view and suggests that insurance policies play a critical role for firms that are involved in infrastructure projects as they often carry a huge financial risk. The executive states that as construction projects (in particular infrastructure developments) that are undertaken in the target markets become larger and complex, so do the risks that are associated with them.

*“Vietnam is one, China is a major - I won’t say ‘no go zone’ - but you’ve got to be very careful when you’re undertaking projects in China. Most of the Asian countries will have some form of restriction or limitation on what insurance can be arranged.” (Client Executive Firm I)*

The sheer size and scope of the projects pose significant risk management challenges which include identifying risks, determining the allocation of risks amongst the parties involved and developing mitigation and risk treatment plans. For this reason he is of the view that it is imperative for a firm to consider appropriate risk management solutions especially when operating in a foreign market. However, these solutions may differ across different markets, so it is important that a firm has an understanding of the legalities associated with the risks and develops solutions that best match the needs of both the foreign market and the project. Although these aspects are of concern to any multinational, they are of particular importance to New Zealand civil construction firms as these firms may not always have the capacity to

sustain huge monetary losses and also may lack the knowledge of the legalities when operating in such settings.

#### *5.4.5 Role of Government Agencies*

Government agencies play an important role in promoting commercial interests of key economic sectors of a given country at an international level. Similarly New Zealand government agencies play a vital role in enabling New Zealand civil construction firms to better understand and overcome potential barriers when considering international opportunities. However, the findings of this study suggest that a majority of New Zealand civil construction firms are not reliant on government support when considering overseas projects. Of the 15 firms, 11 firms state that they have never approached New Zealand government agencies for any assistance when considering international opportunities. The Director of Firm J for example states that although the firm has a very limited presence in the target markets, the assistance that it has sought from Agency 1 has been of little help to the firm to help it develop best practices for the target markets. Respondents from Agency 1 however hold a different view.

Representatives of Agency 1 (Programme Manager and Strategic Research Analyst) suggest that in spite of the support that the agency provides, New Zealand civil construction firms often do not approach them when considering international markets. Both the respondents state that in order to succeed in the target markets, it is important that firms seek assistance in the early stages of setting up operations in the target markets. When questioned whether firms from the construction and engineering sector seek services from the agency, the respondents state that only four firms (Firms A, B, H and K) have sought assistance from the agency to set up operations in markets like India and China. The primary reason for approaching Agency 1 was to seek market information and guidance on how to best operate in those markets, which is the main role of the agency. The Programme Manager from the agency states that the organisation actively promotes the services it has to offer to various New Zealand civil construction firms, including firms in the construction and engineering sector, however the response from the construction and engineering sector in particular is not that positive. The Programme Manager also states that the agency has been very proactive in recognising the opportunities in infrastructure development that markets like South East Asia, India and China have to offer and takes the initiative to promote these prospects to construction and engineering firms in New Zealand.

*“So yes, we do, and especially in construction, we’re trying to promote and push information on potential prospects in South East Asia, India, China as much as possible to the sector. I’m doing it without them coming to me as a proactive measure to these guys, saying – this is what*

*is available, you guys, if you need further information do come back to me and ask me and I can provide you with more information.”(Programme Manager Agency 1)*

However despite the information and support, the Programme Manager states that the agency has failed to generate interest amongst firms in the sector.

*“We go out of our way actually to promote and tell them, you know – this is what is happening, the way these things operate. Try to capture it. If you need any further information do ask us and we can let you know. We can go down to the extent of who the project manager is sometimes, and give them the names and phone numbers of those guys. What else can I do? I can’t call up on behalf of the company and get the order for them.” (Programme Manager Agency 1)*

This view is shared by another respondent from the agency (Strategic Research Analyst Agency 1) who states that in most cases firms in the construction sector seem reluctant to pursue opportunities beyond Australasia. Reasons for this according to him are unclear; however both the respondents feel that perhaps the dynamic environment of the target markets and lack of experience are two factors that possibly stop construction and engineering firms from considering opportunities in those markets. The respondents also state that often New Zealand civil construction firms (in this case construction and engineering firms) are not able to comprehend the sheer size of these markets and try to internationalise without gathering sufficient market knowledge or advice on how to best enter and operate in such settings.

*“Many a time New Zealand companies are scared of going into markets like India and China purely because they don’t think size.” (Strategic Research Analyst Agency 1)*

*“They often go into these markets without sufficient information. And they think – well, we can, we’ve done it in New Zealand, we can go to China and do it. And then they burn their own resources, time and energy, and often in that process they have loss of face, loss of name for the company, and they can’t go into that market or other markets again.” (Programme Manager Agency 1)*

As a result, New Zealand civil construction firms often end up wasting resources, time and energy which makes them averse to consider operations in Asian markets. This view is also shared by a respondent (Economist) from Agency 2. According to him, as most New Zealand civil construction firms are small-medium enterprises, information gathering can be an expensive exercise especially if a firm has limited financial resources. Hence, New Zealand civil construction firms tend to have very limited or no information when first considering

operations in Asia and so are sceptical of operating in these markets. However, the respondent states that the firms need to be proactive and approach the government agencies for prospective advice before considering operations in these markets.

*“Thing is firms need to approach us or NZTE prior to entering international markets, to avoid pitfalls in the early stages of internationalisation.” (Economist Agency 2)*

Respondents from Agency 1 also state that in the case of infrastructure development, the level of government involvement is extensive hence it is important that firms seek advice prior to considering any project as the legalities and requirements for undertaking infrastructure projects vary from one market to the next. This view is also shared by the respondent from Agency 2 who states that because infrastructure projects entail a number of regulations and processes it is critical that a firm has some basic information or knowledge about these requirements prior to initiating work in a foreign market. The respondent was also of the view that New Zealand civil construction firms, compared to other multinationals, often face discrete barriers when considering international operations. The respondent states that New Zealand civil construction firms often face issues with raising capital, finding appropriate human resources and achieving economies of scale.

*“We know that New Zealand civil construction firms are smaller, that they face scale issues, skill constraint issues, capital constraint issues, and we understand all that.” (Economist Agency 2)*

However, he also states that there are firms from New Zealand that have successfully internationalised and overcome these issues. According to him, New Zealand civil construction firms that have managed to find success overseas have put in time, resources and effort to ensure that they understand the requirements of a given foreign market. The respondents from Agency 1 share this view and state that forward planning helps a firm avoid early stumbling blocks in an unfamiliar environment. The respondents from both the agencies state that given their primary role, they offer services that guide and direct firms to better operate in an international setting from the onset. Agency 1 for example, amongst other services, has specifically developed a programme that helps New Zealand civil construction firms better understand international markets and provides strategic advice. The primary purpose of this programme is to promote New Zealand competences internationally and create deeper in-roads in potential foreign markets. The programme focuses on furthering New Zealand trade interests in Asia.

The programme especially targets New Zealand civil construction firms in their early stages of internationalisation and support is provided by both New Zealand and local representatives in that foreign market. The representatives also provide firms with the information necessary to facilitate a firm's operations in a given market and help to create networks with potential clients, partners and other key stakeholders. The respondents from Agency 1 state that New Zealand civil construction firms that have managed to find international success especially in Asia, have sought strategic advice and guidance through this programme. Similarly, the respondent from Agency 2 states that often the agency meets up with firms to discuss the kind of services or support that would help them in international markets. Based on the feedback, Agency 2 then collaborates with representatives from Agency 1 to deliver customised and structured support services. This not only helps firms make strategic choices but also assists them to overcome potential barriers in a foreign market. Although this assistance is given for any international market, respondents from Agency 1 state that such tailored services are particularly important for New Zealand civil construction firms considering operations in Asia as market intelligence in this region is not always readily available.

Both the respondents from Agency 1 also emphasise the importance of collaboration and networking at firm level when considering operations in Asia. They are of the view that given New Zealand civil construction firms are comparatively small in the global market, one way to address resource constraints (a factor associated with size) is to partner with local firms in a foreign market. Collaborating with local firms can not only help New Zealand civil construction firms create potential linkages but can also assist building resources and developing market knowledge and experience that help the firm grow in that foreign market.

*“Advice to companies – is relationships - collaborating helps build resources, knowledge and experience, find the right-minded, or like-minded, partner who believes in the same ethos, who believes in the same principles, and who believes in you know, helping each other grow as they grow together.” (Programme Manager Agency 1)*

The Programme Manager from Agency 1 also states that if required, the agency helps New Zealand civil construction firms identify and partner with the right firms and stakeholders in foreign markets. This point is further supported by the General Manager of Firm A who states that leveraging off Agency 1 has helped the firm establish itself at an international scale.

*“We actually leverage off Agency 1, like a lot of other New Zealand businesses. They help you establish yourself in countries and get you information and sometimes they can actually get you*

*to the right people. Sometimes we have them involved in meetings with us. But they certainly help out a lot, no doubt about it. Sometimes they put forward people that just haven't worked and sometimes we don't ask them and in other areas, sometimes we do ask them and they find us the right people. Yeah.” (General Manager Firm A)*

Respondents from both the agencies state that it is important that New Zealand civil construction firms take notice of the opportunities that Asia has to offer as the region is only going to become more important in the coming years. Also, expanding to these markets is essential for the development and long term growth of New Zealand civil construction firms.

*“What is important is that going forward, markets in Asia are going to offer opportunities that New Zealand companies can't afford to ignore.” (Strategic Research Analyst Agency 1)*

In order to capitalise on opportunities the Strategic Research Analyst from Agency 1 suggests that New Zealand civil construction firms need to change their mind-set and their business model. According to him, often New Zealand civil construction firms try and undertake work on their own; however limited resources and market experience often stop them from succeeding internationally. The Programme Manager supports this view and states that in the case of infrastructure development, the size of the projects that are undertaken in Asia are huge and New Zealand civil construction firms may find it difficult to compete for work against large local firms. In order to succeed in these markets, it is important that New Zealand civil construction firms form a consortium and bid for a project as a group rather than bidding for work independently. Collaboration to source work in infrastructure development is vital. The Programme Manager also states that other multinationals operating in Asia often collaborate not only to source work, but more importantly to share knowledge, experience and capabilities. The respondents also state that it is critical that New Zealand civil construction firms think big and focus on long term growth.

Although the agencies provide adequate support, respondents from an industry body (Industry Body 1) are of the view that government agencies often do not reach out to the firms and the sector. They state that agencies often fail to encourage firms to seek opportunities in the target markets. The Industry Development Manager for example states that not all the firms in the sector are fully aware of the services that the agencies offer. The respondent is also of the view that companies often develop capabilities but cannot get them to offshore markets. A reason for this according to him is the lack of funding. Given that New Zealand civil construction firms have limited financial resources, they often find it difficult to raise capital to successfully



market their capabilities at an international level. The respondents from the Industry Body also state that there is no particular government support structure in place and the government agencies have a very fragmented approach to helping firms internationalise. A case in point according to the Industry Development Manager is the Clean Technology sub-sector in New Zealand. The Industry Development Manager states that the sub-sector is characterised by a large number of small firms. He states that although government agencies like Agency 1 have policies and services, these are not directly linked to the industry. The industry lacks an overarching strategy and representation within government agencies that would allow firms in the sub-sector to promote their capabilities in an international setting.

*“It’s not that they don’t do anything, but in the context of what we’re talking about in terms of clean technologies, they have some champions within government entities, but they also have their own blocks to cater to. And they’d be the first to say that there is not a coordinated linked-up approach to these things, and there is no overarching champion or advocate like you see in many other countries.” (Industry Development Manager, Industry Body 1)*

Another sub-sector that has limited representation at an international level is Geothermal Energy. New Zealand civil construction firms have niche capabilities in geothermal resource management and power generation. However, according to the executive, the New Zealand government and related agencies do not always assist firms in the sub-sector to market their capabilities to an international client base. For example, the respondent states that there was no government or ministerial representation from New Zealand at an International Geothermal Congress held in Bali in 2011. He is of the view that this absence indicates that although the government has policies and services in place, it does not really take an active role in representing New Zealand civil construction firms and their capabilities on an international front. He states that there is an obvious disconnect between the government and the industry.

However, the executive also states that government policies alone will not help New Zealand civil construction firms succeed globally. He is of the view that often New Zealand civil construction firms do not necessarily market their competences to government or industry bodies. If firms within the construction and engineering sector are to succeed internationally, he states that the firms have to be more proactive in marketing and presenting their capabilities to the right agencies that will assist them in promoting their expertise in a global market. Another respondent (Director, Industry Body 1) shares this view and states that New Zealand civil construction firms need to change their business model and market their skills to capitalise on opportunities that international markets have to offer. This, according to him, is critical for

New Zealand as competing for work in Asia is very hard and so New Zealand civil construction firms need to market expertise which sets them apart from the existing competition in the region.

*“It’s extremely hard to be competitive overseas. It’s not always the price deal that Asian countries can deliver; we basically compete there on an equal basis. And the Asian countries are working in a way where you can see they are very equivalent competitors in the foreseeable future in some areas. So if you don’t have an advantage around – for that IP or something – we just will lose that battle, there’s no question in my mind. This is why we believe strategically you have to lift the guidelines.”(Director, Industry Body 1)*

Recognising this aspect, both the respondents state their organisation helps New Zealand civil construction firms identify market opportunities and help the firms establish their operations in a given foreign market through a step-by-step process. The organisation terms this approach as a “road map process”.

*“So in the roadmap process – we don’t rely on the companies to necessarily have the idea about the market or the products. We have in-depth understanding of the company’s capabilities, being an industry body. We identify emerging market opportunities, where the niche is. There’s a number of companies may be able to play in the market, not just one company. We will do some in-depth market analysis; typically it’s a report like that on some of these niches. We then present that to those amongst our membership that might be interested, and we might tap some people on the shoulder and say – look, with your capability, have you looked at this? If they’re interested they’ll come aboard with us to facilitate the process.”*  
*(Director, Industry Body 1)*

The director also states that the organisation helps gather market intelligence, establish networks and assists in marketing a firm’s expertise in a potential foreign market. The executive states that the organisation partners with a number of other New Zealand government agencies, trade bodies and ministries that help add value and ensure that the firms get the required support when entering a foreign market.

*So that’s what we do, our process that we work within, which we call, as I said, the roadmap process. And within that we have a number of partner organisations, like New Zealand Trade and Enterprise, Ministry of Science and Innovation, different Ministry associations, could be universities, could be anybody who can add value to making sure the companies get the support they need to get into that market, and develop the products they need. That’s what we do.”*  
*(Director, Industry Body 1)*

The analysis of the government agencies and the industry body indicates that given their size, New Zealand civil construction firms often lack necessary resources, market knowledge and experience to effectively sell their capabilities to potential international clients. Hence government and industry support is vital for New Zealand civil construction firms to ensure that they are able to capitalise on the opportunities that international markets have to offer.

### *5.5 Chapter Summary*

This chapter presented an analysis of the main findings. The chapter first presented a background of the participants, which was followed by a within case analysis of four exemplar cases. Section 5.4 presented a comparative analysis of the 18 cases. In order to better facilitate the discussion, the findings were grouped into six major themes which included firm size and geographic distance, importance of the domestic market, competitiveness, importance of financial and human resources, corruption and bureaucracy and role of government agencies.

The aim here was to evaluate the firms that have current operations in the target markets versus firms that do not operate in these markets. The main intention was to investigate the motives for considering international markets and also evaluate how size, resources and services/capabilities offered by the firms influenced their decision to go international. Finally the chapter also analysed the main services offered by New Zealand government agencies and an industry body and discussed the key concerns they identified. Accordingly, the aim of the next chapter is to evaluate the findings in the light of theories discussed in chapter three and characteristics of SMEs. The chapter also aims to assess the propositions outlined in chapter three.

## *Chapter 6 Discussion*

### *6.1 Introduction*

The substantial attractions of large markets are normally balanced against the considerable challenges of doing business in emerging markets. The number and the type of difficulties encountered in markets such as India, China, Indonesia and Vietnam are likely to be higher and quite different from the barriers that are experienced by foreign firms in other developed markets. This is because these markets are distinctive in terms of the way the local market and businesses operate and the dynamics of the market as a whole are quite distinct when compared to other developed markets (Enderwick, 2007). While this aspect may hold true for any foreign business that seeks to conduct operations in the target markets it becomes particularly relevant for New Zealand construction and engineering firms. The main point that is perhaps evident from the analysis in Section 5.4 is that most New Zealand civil construction firms do have capabilities in the area of infrastructure development that match opportunities especially in Transport and Energy infrastructure in the target markets. Keeping this in mind, the first section (6.2) discusses how firm-specific advantages can influence the international competitiveness of New Zealand civil construction firms in the target markets.

Despite promising opportunities the findings indicate that 40 percent of the firms that were interviewed are sceptical of opportunities in the target markets. The main barriers identified were: size of the civil construction firms and geographic distance between New Zealand and the target markets, a strong domestic market, competitiveness, resource constraints (in particular financial and human resource), level of corruption and bureaucracy and role of government agencies. Lack of market knowledge and international experience were also identified as factors that could hinder a firm's operations in the target markets. The aim of this chapter is to discuss the main findings of this study in the context of the literature on internationalisation and industry factors that have an impact on the internationalisation of construction and engineering firms. Conclusions are derived by integrating the findings discussed in Chapter 5 with the theories discussed in Chapter 3 and characteristics of SMEs. The chapter also discusses the characteristics of the contracting industry and analyses how these are likely to influence the internationalisation of New Zealand civil construction firms. The discussion also evaluates the propositions outlined in Chapter 3.

## ***6.2 Firm specific Advantages and International Competitiveness of a Firm***

A firm's ability to compete in an international context is determined by various factors, including the following:

- a) Ownership advantages (tangible and intangible assets),
- b) Human resources
- c) Ability to network in a foreign market
- d) Firm size

The first research question of this study proposes to analyse whether firm-specific advantages influence the international competitiveness of New Zealand civil construction firms. Accordingly, this section presents a discussion on the firm-specific advantages and its influence on the competitiveness of New Zealand civil construction firms in an international context. The competitive ability of New Zealand civil construction firms is analysed on the basis of their ownership advantages, relevance of human resources in international construction, capability to network in foreign markets and finally the issue of size and its impact on the ability to compete effectively in target markets is discussed.

### ***6.2.1 Importance of Ownership Advantages in International Construction***

There are a number of frameworks that explain why firms undertake foreign investment. The eclectic paradigm of international production developed by Dunning (1977, 1980) is the established framework in international business that provides an explanation for the foreign value-added activities of multinational firms. As discussed in Chapter 3, the usefulness of the eclectic paradigm of international production is that it provides a framework for answers to the basic questions – the why, where and how – of foreign value-added activities of firms. The paradigm asserts that the foreign value-added activities of a firm are a consequence of obtaining advantages from three sources.

First, the ownership (O) advantages of the corporation relative to competitors. The OLI framework advocates that firms that consider international opportunities must possess firm-specific advantages which allow the firm to successfully compete against indigenous firms which enjoy a level of familiarity with the local market environment. Second, the location (L) advantages of the foreign host country. That is, in order for a firm to succeed firm-specific advantages need to be combined with location-specific advantages, implying that the firm undertakes production in a foreign market. Third, internalisation (I) advantages are derived from the overseas transfer of firm-specific advantages (tangible and intangible) within a particular organisation (Dunning, 1977; 1988 (a)). Hence, identifying factors that can be

classified as ownership or firm specific advantages becomes critical for a firm's survival especially in an international context (Chen & Lee, 2008).

When applying this model to the civil construction sector three aspects require particular consideration. First, the identification of firm-specific advantages may be difficult in a sector that is traditionally classified as being of low-technological intensity. Second, non-equity modes of foreign investment such as contracting are widely used by firms in this sector, which makes it difficult for firms to internalise the activities (Myers, 2013; Seymour, 1987). Finally, the difficulties of defining and categorising output in this sector are compounded at an international context, particularly when considering the degree to which the services provided by firms in the sector are internationally tradeable (Enderwick, 1989). Accordingly, ownership advantages in the case of the civil construction firms are likely to differ from those normally associated with the success of manufacturing firms.

According to Dunning (1988) the ownership advantages of a firm are exclusive or privileged possession of country specific and/or firm-specific tangible and intangible assets which gives the owner proprietary advantage. Firms in the construction sector are likely to display tangible assets in the way of niche capabilities or specialisation (Gann & Salter, 2000; Pheng & Hongbin, 2007; Rashid & Aziz, 1995; Rashid, Aziz & Wong, 2011). This follows from the intangible nature of advantages which tend to embody the firm's name, reputation and experience (Dowling, Festing & Engle, 2013; Myers, 2013). The level of specialisation facilitates the diffusion and evaluation of distinct corporate profiles (Enderwick, 1989). Reputation or track record perhaps is the most important intangible asset for civil construction firms. Civil construction firms that have a strong reputation are considered to have a competitive edge when considering international operations. According to Quak (1991) a firm tends to gain recognition when it demonstrates the ability, technical know-how and experience to overcome challenges that may emerge in the course of a construction project.

Reputation also helps a firm market itself through its past successes and creates goodwill which can play a critical role when considering international operations. Since the services rendered by construction firms are embodied in their products or technical expertise their quality displays more variation than that of 'pure' goods. For this reason branding or reputation may form a powerful competitive weapon conveying as it does valued information to potential buyers (Enderwick, 1989; Quak, 1991). Findings of this study are supportive of this

expectation. Four firms that have extensive international construction experience in the target markets (Firms A, B, C and K) identified having a good name and reputation as an important intangible asset advantage relative to other local and foreign contractors operating in those markets. According to these firms having a good name means being able to compete on the basis of quality service and not just on price (i.e. cost based competition). Identifying a source of differentiation according to these firms is critical when considering operations in the target markets and often brand image that the firm enjoys becomes a main source of distinction (Rashid & Aziz, 1995; Teece, Pisano & Shuen, 1997).

The reputation that a firm enjoys stems from the services, innovation and technology (tangible assets) that it possesses. Expertise in providing specialist services, products and know-how can assist a firm to create firm-specific advantages. Through technological innovation firms are able to differentiate their construction services and in the process develop a track record, thereby establishing a good reputation and name in the industry. The enabling factor that is able to bring out the intangible asset advantages is dependent on the management capabilities of a given firm (Cuervo & Pheng, 2010). Specialisation thus plays a critical role in helping a firm develop its competitive advantage in a foreign market. This aspect is particularly important in multidomestic industries such as construction. A multidomestic industry is an industry that is present in a number of countries however the extent of competition may vary from country to country (Dowling, Festing & Engle, 2013; Porter, 1980). A firm in a multidomestic industry amends and adapts its tangible and intangible assets to suit the needs of a market that it seeks to operate. Amongst other factors the form of firm-specific advantage or specialisation in civil construction is significantly influenced by country-specific factors (Enderwick, 1989). US based contractors such as Caterpillar construction ([www.caterpillar.com](http://www.caterpillar.com), 2013) for example, tend to have extensive engineering and technological expertise in the area of process plant construction. This expertise is founded on the growth of the petroleum industry in the country (Enderwick, 1989). Similarly Japanese contractors such as Obayashi Corporation, Shimizu Corporation and Takenaka Corporation have expertise in long-distance tunnelling, soil remediation technologies, earthquake engineering, clean technology and industrial plant planning and development ([www.obayashi.co.jp](http://www.obayashi.co.jp), [www.shimizu.co.jp](http://www.shimizu.co.jp), [www.takenaka.co.jp](http://www.takenaka.co.jp), 2013).

UK based contractors such as Balfour Beatty PLC, Carillion PLC, Morgan Sindall PLC and Kier Group PLC (Department of Business, Innovation and Skills, 2013) amongst others enjoy



a strong international presence and are well known in the areas of engineering consultancy, architectural design, project management services and quantity surveying. Italian firms such as the Astaldi Group, Impregilo and Marie Tecnimont are renowned for their specialisation in dam construction, groundwater prospecting, hydrocarbon processing plants and management of large and complex integrated projects in oil and gas, petrochemicals, fertiliser plants ([www.astaldi.com](http://www.astaldi.com), [www.impregilo.it](http://www.impregilo.it), [www.mairetecnimont.com](http://www.mairetecnimont.com), 2013). This expertise is based on know-how gathered in the domestic market. These contractors also benefit from a well-developed domestic capability in production of steel and construction. South Korean, Indian and Brazilian construction firms tend to enjoy low-cost advantages as these firms have access to well-trained labour at relatively low cost (Enderwick, 1989).

Similarly New Zealand civil construction firms have developed expertise in the area of earthquake engineering, seismic design, renewable energy applications (especially in the area of geothermal and wind energy technologies). New Zealand civil construction firms are also known for their ecologically sustainable architecture, master planning and urban design. In addition to this, the aviation sector of New Zealand enjoys considerable international recognition especially in the areas of baggage and cargo handling, air control solutions, technical training and airport security software. The firms interviewed for this study enjoy strong market positions in New Zealand and the varied expertise of the firms is based on the demand for these capabilities in the domestic market.

Building on this know-how, of the 15 firms interviewed for this study, five firms (Firms A, B, C, H and K) have managed to achieve international success on the basis of their firm-specific advantages. As discussed in Chapter 2 of this study, and in Section 5.4.1.1, New Zealand civil construction firms are recognised for their capabilities in the target markets. Technological innovation for example was the key behind Firm A winning a US\$30 million baggage handling project in one of the markets in Asia. In addition, Firm B is also well known for its services in the area of transport infrastructure and has undertaken road and highway development projects by rendering consultancy services in the area of earthquake engineering and seismic design in markets like India, China and Indonesia. Firm K has partnered with medium-sized infrastructure and engineering consultancy firms in India on niche infrastructure projects, while Firm C has won projects in the Indian market on the back of their technical expertise in pre-construction services on large scale commercial developments. In the case of Firm H, the

company was chosen for its expertise in master planning and designing a railway station in India.

The above examples indicate that New Zealand civil construction firms have managed to attain competitive advantage in the target markets by offering customised solutions for clients in the area of baggage and cargo handling, earthquake engineering, seismic design and sustainable architecture. This is also suggestive of the fact that New Zealand civil construction firms have the requisite capabilities that are needed in the target markets today. Also in a number of the target markets, local firms lack the capacity, funding and at times technical expertise to execute many of the projects that the government envisions. The success of New Zealand civil construction firms in the target markets indicates that local firms recognise the capabilities that these firms have to offer. *The points discussed above indicate that New Zealand civil construction firms that have capabilities and expertise applicable in the target markets but which are absent within local firms, are more likely to consider projects in the target markets (proposition one).* Hence it can be stated that the competitiveness of a firm especially in an international setting amongst other factors is governed by the type and level of ownership advantages that a firm possesses (*sub research question 1.1*).

### *6.2.2 Human Resources and Competiveness in International Construction*

There is a strong relationship between the resources a firm possesses and its ability to build competitive advantage. The RBV of the firm has become an established and influential framework for describing and explaining the relationship between resources and competitive advantage (Barney, 1991, 2011). According to the RBV, resources are firm-specific assets, knowledge, organisational processes, attributes and competencies that firms use to select, develop and devise their strategies. By enabling firms to exploit their internal strengths, overcome weaknesses, respond to market opportunities and neutralise external threats, an organisation's portfolio or bundle of firm-specific resources enables it to generate economic rents (Amit & Schoemaker, 1993). These resources may also be the means through which a firm gains competitive advantage (Barney, 2011; Dunning, 1998).

Thus it can be stated that resources strengthen a firm's performance. Amongst other assets, a firm's human resources play a critical role in determining the success of a firm. Human resources (both skilled personnel and managerial staff) are imperative within the construction sector. Unlike other sectors however, construction is a project based industry which involves a number of participants such as clients, designers, contractors, constructors and consultants that are a part of a given project (Dainty, Bagilhole & Neale, 2000; Ng et.al, 2001). The business process within construction often comprises highly complex interrelated tasks requiring the acquisition and co-ordination of different categories of human resource skills (Ng et.al, 2001). Attaining and managing employees therefore can be a huge challenge for firms in this sector.

The firms interviewed for this study support this view. As work undertaken in the sector is mostly project based, nine firms (A, B, C, F, G, H, I, K and M) (60 percent) acknowledge that, finding staff with the right skills and knowledge is an issue commonly faced by New Zealand civil construction firms in both domestic and international markets. The firms state that although finding and retaining skilled labour can be difficult when operating in New Zealand, the difficulties are escalated when a firm decides to pursue international opportunities. The environment of an international construction project is far more complex than that of domestic projects and its human resource strategies can be a challenge for any firm especially if it has little knowledge of operating in that environment (Du, Liu & Picken, 2007). Similarly for four firms (A, B, C and K) international construction projects often involve multinational participants from different political, legal, economic and cultural backgrounds. Sourcing employees with the right skill set and knowledge is critical for firms to succeed in such a context.

Human resources not only serve and supports the management goals and dynamic changes of international construction projects but also directly influences them. For example, human resource managers of an international construction project need to introduce strategies and practices to suit the specific interests of a client and the characteristics of a given project (Ng et. al, 2001). Literature on international construction also states that amongst other aspects, effective human resources can contribute to success in achieving the main objectives of attaining target dates, meeting financial plans, controlling the quality of the final project and providing the firm with requisite local market information (Du, Liu & Picken, 2007). This aspect is reiterated by four firms (A, B, C and K) who state that the success of a firm in an international context is dependent on the quality of human resources and their ability to understand and cater to the needs of a given client.

Reponses from the four firms indicate that construction firms involved in international projects should respond to the diversity of international markets by hiring staff that not only have the right skills but also have knowledge and experience that can help a firm succeed in a foreign market. Their views also highlight that employees that are sourced from a foreign market can help a firm understand the dynamics of operating in that environment. Employing local staff according to the firms is particularly important when considering infrastructure projects as they may understand the legalities associated with a given project that the foreign firm may not be necessarily aware of. Further, local employees can also play a critical role in helping a firm develop effective networks with key stakeholders and local firms in the foreign market. Such strategic alliances can not only help a foreign firm gain necessary market intelligence but also acquire complementary resources from potential partners while maintaining internal resources that are necessary to attain the firm's strategic goals. The internationalisation and network theories also suggest that locally sourced employees enable small-medium enterprises in particular to maximise their network opportunities which may assist them further enhancing their competitive advantage in an international setting (Grant, 1991).

In order attract and retain staff Firm B for example, has adopted an inclusive approach where the top management of the firm initiated an ownership scheme that encourages senior management to invest in the company by purchasing shares of the firm. According to the firm, this strategy has played a critical role in helping the firm develop an effective incentive system where the employees across different subsidiaries are seen as an integral asset to the firm. This view is supported by research conducted by Dainty et.al, (2000). According to their study, if the principal employers of international construction projects are to avoid losing their best staff,

they must develop more effective ways of rewarding and developing their workforce and meet individual employee career needs and expectations; not just in terms of formal employment contracts but also in terms of their employees informal expectations of the relationship between themselves and their employer (Dainty et.al, 2000).

Training is one of the most important aspects of human resource management. At a company level, training plans should provide effective training and development opportunities for all employees to enhance personal skills and multi-skill capabilities. For international business in general, employee training needs a highly systematic plan to develop employees' potential and improve their skills to fulfil long-term business objectives (Bon & Crosthwaite, 2000). Many multinationals including construction firms make substantial financial investments in long-term training plans for developing their employees which is seen to be worthwhile for company success and development (Ramlall, 2003; Westhead et.al, 2001). However, given the nature of the projects undertaken, construction firms often do not have time to provide long-term training planning to enhance employees' skills and performance at the project level (Mawhinney, 2001). Also, as most employees on an international construction project are often involved only for a short term, construction firms find it challenging to effectively train and manage a workforce that is often determined by the requirements of a given project and the cycle of the sector at the time (Du, Liu & Picken, 2007).

The points discussed above are shared by executives of four firms in this study. These firms (F, G, L and M) believe that in order to source, train and develop the right staff it is important that a firm invests capital, however this can be a major issue for New Zealand construction and engineering firms. While considering international markets, views from Firm F indicate that as the work undertaken is project based, it becomes very difficult to attract, develop and retain employees for a short period of time. Also training employees (either local or foreign) requires time and money which is often governed by the cycle experienced by the sector in a given market (domestic or international) at the time. This restricts the firms from forecasting labour requirements for upcoming projects. Two firms (F and G) suggest that although hiring local staff can prove to be very useful for a firm it is often too difficult to source the right talent as the environment of a foreign market can be difficult to comprehend. One firm (G) suggests that even if a firm is able to source local employees, often their skills and knowledge do not match the expectations of the firm and the project in question. Hence a firm may find it necessary to invest in training or up skilling local staff, which can prove to be expensive especially in a foreign context (Chan & Tse, 2003). As the skills and expertise needed are influenced by both

the environment in the foreign market and the requirements of the project, human resources account for the majority of costs in most international construction projects (Chan & Tse 2003; Loosemore et.al, 2003). When considering overseas opportunities, it can be challenging for a firm to convince their existing staff to relocate to another country for lifestyle reasons, which makes it difficult for the firm to deploy employees with desired skill sets from New Zealand to a foreign market (Chan & Tse, 2003; Westhead et.al, 2001).

Workforce skills are seen as a key component of industry capability and are fundamental to retaining staff and increasing productivity. This is particularly true for businesses in the construction sector. Firms in the New Zealand construction sector recognise the link between training and productivity and are committed to raising the skills of their workforce. However given their size, firms may lack the ability to invest capital to boost productivity. Moreover, despite a relatively large share of construction workers having at least some form of tertiary training, the sector in New Zealand is also characterised by low earnings. This is almost certainly due in part to the low productivity growth experienced by the sector itself as a result of the difficulty in extracting labour productivity gains from a labour intensive industry (Davis, 2007; Page, 2010). The construction sector in New Zealand has one of the lowest levels of labour productivity. Also, the small-medium business size of the firms makes it harder to invest capital to boost productivity (PriceWaterhouseCoopers, 2011).

Firm F shares this perspective and recognises that although a large number of the people employed by the sector have some form of education; skills always do not match the requirements of the industry. Also the firm acknowledges that as the industry in general is known to have employees with low levels of qualification and technical expertise, the sector has relatively low earnings. A recent construction report by the Ministry of Business, Innovation and Employment of New Zealand (2013) supports this view. According to the report 57 percent of all the labour employed by the New Zealand construction sector has vocational qualifications and a further 38 percent either have no formal qualification or are educated only up to school level. The findings of the report acknowledge that as firms in the sector often lack financial resources to invest in training programmes, the sector as a whole suffers from low productivity. For example, labour productivity for the construction sector as a whole is 34 dollars per hour worked (2010) which is 29 percent below the New Zealand average (Ministry of Business, Innovation and Employment, 2013).

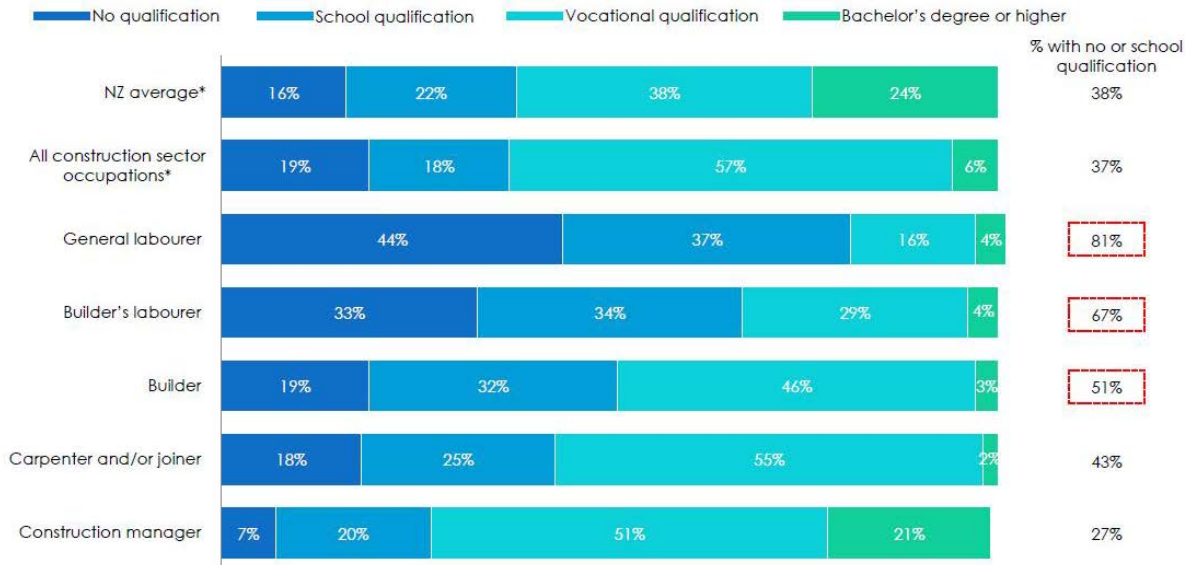
**Figure 6.1 Level of Qualification in the Construction Sector**

### Qualifications by occupation type

A higher proportion of those employed in the construction sector have lower or no qualifications compared to the New Zealand average

#### Highest qualifications held by individuals in construction sector occupations

Qualifications; 2006 and 2012(\*) (may not sum to 100%)



The report further notes that the productivity of the New Zealand construction sector has been declining for the last two decades and is the lowest compared to other sectors in the economy. Levels of productivity in the New Zealand construction sector do not compare well with other countries. For example, the productivity of the New Zealand construction sector is about 30 percent below that of Australia (Ministry of Business, Innovation and Employment, 2013). Further, the New Zealand construction sector also loses workers to Australia who migrate to the country for in search for better prospects (Ministry of Business, Innovation and Employment, 2013). This is shown in figure 6.2 below.

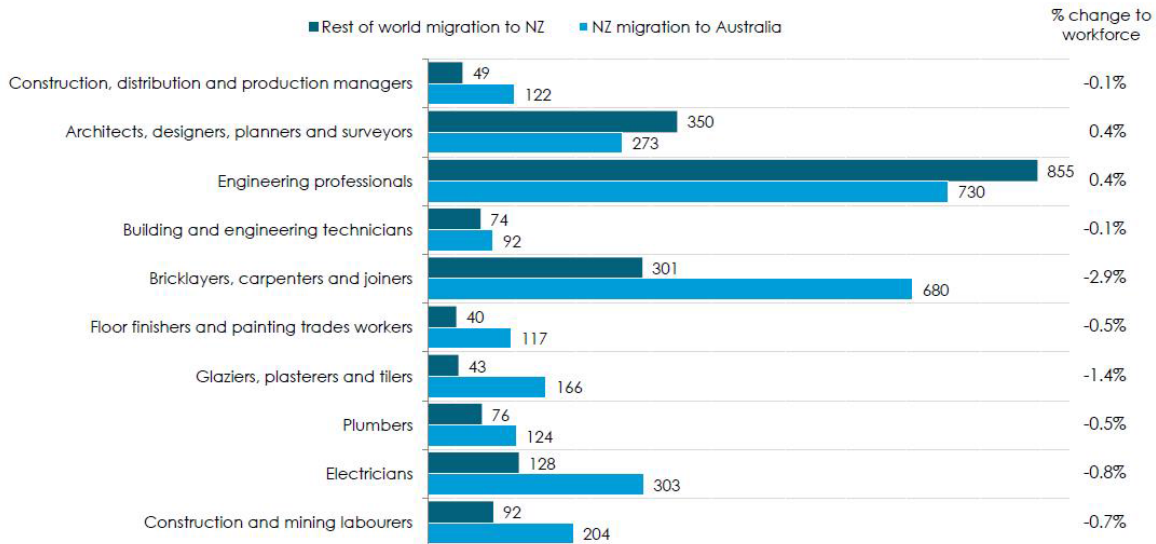
**Figure 6.2 Employee Migration to Australia**

### Skills loss and gain

Although many workers in construction and related sectors have been drawn to Australia, net migration has had little impact on workforce size

#### Net permanent long-term migration figures

Migrants with construction sector skills; year ended March 2012



As seen in Figure 6.2 many workers from the construction and related sectors have left for Australia in 2011 – 2012. Although this migration has had a limited effect on the size of the existing workforce, it certainly makes it challenging for firms to retain skilled employees in the sector. This view is shared by two firms (Firms F and J). According to the firms New Zealand civil construction firms often lose their staff to Australia as the market is more promising and lucrative which makes it harder for the firms in the sector to attract, develop and retain employees. This in turn results in poor skills retention and low labour productivity.

The construction sector is characterised by its cyclical nature and volatility. The business cycle is experienced more acutely in the construction sector when compared to other sectors and has a significant impact on firms and employment (Allan, Yin & Scheepbower, 2008). For example, when the sector experiences a boom, the industry suffers from capacity constraints, while in the case of a bust many workers tend to lose their jobs as firms try to cut costs. Also when the sector experiences a downturn, there is a tendency to price at or below cost to win work which has consequences for the quality of work, employment and viability of businesses (Mawhinney, 2001). For this reason, the training of workers and consequently the productivity of the sector is determined by the cycle experienced by the sector at a given time. This perspective is shared by two firms – Firm L and Firm M. The two firms accept that money



spent on training and professional development of the employees is invariably linked to the cycle experienced by the sector and consequently the firms operating in that market. The inability to develop and retain adequate skilled workers is one of the reasons why the two firms have not considered international projects. Indeed, the casual nature of employment seen in the sector makes the planning of labour requirements an extremely vague exercise, which can result in low productivity, high employee turnover rates, and reduced motivation to train and plan for the long term (Mawhinney, 2001; Ng et.al, 2001).

New Zealand civil construction firms that have found it difficult to train and develop their employees are small-medium sized firms that lack requisite finance to make such investments. Firms report difficulty in recruiting skilled and experienced labour both at the domestic and international level. The boom and bust cycle is a disincentive for firms to invest in training. Further upskilling to utilise new technologies/techniques is costly and may require a higher standard of literacy and numeracy amongst the existing workforce. Shortages of a skilled workforce at a domestic level have also had an effect on the ability of four firms to consider opportunities beyond New Zealand. These firms state that given the difficulty of finding appropriate staff in New Zealand, training or up skilling workers for international markets can prove to be expensive especially when the firm has limited financial resources. The discussion in this section also indicates that the poor productivity performance of New Zealand construction firms is likely to place them at a competitive disadvantage when seeking overseas work. Based on the points discussed in this section it can be concluded that the levels of human resources and *their productivity within New Zealand civil construction firms can have a negative affect on their internationalisation (proposition two) (sub-research question 1.2).*

### *6.2.3 Importance of Networking and Competitiveness in International Construction*

In addition to firm-specific advantages, the findings from this study suggest that there is a significant relationship between a firm's international experience and its competitive advantage. Although the OLI paradigm identifies that multinationality can augment firm-specific advantages, it assumes that multinational status is achieved on the basis of pre-existing compensating advantages (Enderwick, 1989). Barney (1991) further supports this view and states that a company may gain competitive advantages by analysing information about the assets it already controls and by adjusting its performance based on the requirements of a given foreign market. This point is supported by the findings of this research. Indeed the five firms (Firms A, B, C, H and K) that have successful operations in the target markets have been able to further build their firm-specific advantages by recognising the opportunities for their existing capabilities in the target markets. Through experience of operating in the target markets, the five firms have been able to further improve their competencies to suit differing requirements of the target markets. Five other firms (Firms D, J, L, M and O) support this point and are of the view that international experience allows a firm to understand differing market and client requirements which help a firm enhance its own capabilities.

The responses from the five firms also suggest that international experience helps in better understanding the dynamics of operating in a foreign market. The firms state that this knowledge can be a source of competitiveness especially when considering operations in the target markets. The five firms recognise that lack of international experience has been one of the principal reasons for not expanding their operations to the target markets. These firms also state that they are often disadvantaged in the target markets in comparison to native firms who have better knowledge of the local market and so are able to identify project opportunities earlier than foreign firms. However, this sort of disadvantage can be attenuated by a permanent foreign presence and presumably decreases over time with the accumulation of experience. Also this can help a firm accumulate information through its local network on potential projects in a given foreign market (Enderwick, 1989; Ling & Hoi, 2006).

Of the five firms that have successful operations in the target markets, four firms (Firms A, B, C and K) have established offices in the region. A permanent presence in the foreign market has allowed these firms to gain an understanding of the dynamics of operating in the target markets. Their responses indicate that a permanent presence in a foreign market has allowed them to build local networks with domestic firms and key stakeholders. These networks have

been critical in providing the firms with information on potential projects, pre-qualifying processes, and market knowledge. The need for a permanent presence for competitive reasons is one of the primary reasons for the four firms to undertake foreign direct investment in those markets.

For sustainable competitive advantage, a company should also consider market-based factors that are beyond its control. According to Porter (1980, 2008), Prescott (1986), and Scherer (1980), the strategic performance of a company is greatly affected by the environment in which it operates and the influence of external market factors is a primary determinant of performance. However, uncertainties are an inherent part of a foreign market environment as company executives have little control over external market factors (Stoian, 2013). Given the dynamic nature of the target markets, this aspect becomes particularly important. Uncertainties are escalated in the case of infrastructure projects as these projects are heavily influenced by external factors such as politics, macroeconomic conditions, policies of the government and social risks (Marinova, 2014). Also the power of suppliers and the client as well as the risks associated with the operation of the project can be difficult to comprehend especially if a foreign firm has no prior experience of operating in that setting (Marinova, 2014). Additionally, as construction projects are reliant on alliances, developing effective strategic interrelationships with other participants also can be a major risk particularly if the firm does not have any prior knowledge of the business environment in a foreign market (Hayes et.al, 1987). SMEs in particular have to find ways to offset these risks (Mathews, 2002).

Networking is a primary method for dealing with these uncertainties. As firms in the target markets are more reliant on networking; vital information about suppliers, costs, distribution channels and most importantly dominant players in the area of interest may not be readily available to New Zealand civil construction firms, making it difficult for them to take decisions under severe constraints and pressure of local competition (Mathews, 2002). This factor is particularly important as most businesses rely on subjective rather than objective information while dealing with competition in the target markets (Enderwick, 2007). For example, the sales manager for Glidepath, a leading New Zealand based baggage and cargo handling and airport solutions firm, highlights the importance of networking in the Chinese market. The issue of *guanxi* is extremely important to Chinese firms. According to the sales manager of Glidepath, *guanxi* is based around relationships and networks of influence – critical when conducting business in China and is just as important as product and price that a firm has to offer. The firm

therefore emphasises developing a personal rapport with the client as that is central to the negotiation process. Relationships that help build trust and respect between two parties are particularly important in markets like China and foreign firms considering business prospects in such settings must understand the importance of networking (Asia Knowledge, 2010).

An essential factor is the extent to which the relationship with local partners provides the organisation with access to a wider network of business allies, key stakeholders and clients (Uzzi, 1997; Yli-Renko et.al, 2002). In addition, experiential knowledge resulting from interactions with external partners is crucial. Such knowledge can be used to anticipate and evaluate critical situations and to select appropriate action (Mathews, 2002). These points are supported by the LLL Model. As discussed in chapter three the LLL Model argues that the internationalisation of firms is not necessarily based on the possession of overwhelming assets, but rather on a firm's ability to leverage its capability in organisational learning. Mathews (2006) argues that SMEs often compete in international markets without initial resources, skills and knowledge of operating in an international setting and at times without proximity to major markets. Nevertheless, they succeed in spite of these disadvantages by turning preliminary weaknesses into sources of advantage through leapfrogging to advanced technological levels, for example, or by leveraging their way into new markets through partnerships and joint ventures. The model states that strategies based on networking and leveraging from those connections that are most likely to succeed in the interlinked global economy are precisely those likely to be pursued by SMEs which lack substantial prior resources.

In the case of Firms A and H, collaborative partnerships as a means of gaining entry into the target markets are viewed as a primary route of choice. Linkages help a firm develop relationships with their potential partners. These relationships are seen by aspiring firms as principal vehicles for reducing risks involved in international expansion (Narula & Sadowski, 2002). In addition to Firms A and H, this point is also supported by three other firms (Firms B, C and K) that view the use of strategic alliances as particularly useful for foreign firms with limited international experience and see their value in gathering requisite market knowledge. The firms acknowledge that linkages have also helped them reduce the level of risk and uncertainties that are likely to arise due to liability of foreignness and lack of market knowledge. It is this experiential knowledge that reduces the firm's perception of market uncertainty or risk, which, in turn, impacts on commitment to international markets (Johanson & Vahlne, 1977; Johanson & Vahlne, 1990, 2009; Oviatt & McDougall, 1994; Ruzzier et.al,

2006; Vahlne & Wiedersheim-Paul, 1973). Strategic partnerships or linkages have helped five firms (A, B, C, H and K) attain requisite market knowledge and experience of operating in the target markets. This knowledge and subsequent experience has helped the firms devise strategies that have enabled them to better deal with the uncertainties of operating in the target markets and has ensured their success in such dynamic settings (Johanson and Vahlne, 2009; Mathews, 2002). Given the discussion in this sub-section it can be concluded that *New Zealand civil construction firms rely on strategic alliances and networking when considering international projects in target markets (proposition three) (sub-research question 1.3).*

#### *6.2.4 Relation between Firm Size and Competitiveness in International Construction*

Internationalisation of a firm traditionally has been examined in the context of large manufacturing firms. However as small-medium enterprises become increasingly active in international markets (Bonaccorsi, 1992; Erramilli & D'Souza, 1993; Donckels, Haahti & Hall, 2002) it becomes imperative to understand the factors that motivate small-medium enterprises to internationalise. Of the many variables that may influence a firm to go overseas, the relationship between firm size and its internationalisation remains one of the most widely analysed (Bonaccorsi, 1992; Mugler & Miesenbock, 1986). Amongst other factors, there is a wide body of literature advocating that internationalisation requires appropriate resources (personnel, financial, etc.) which are likely to be related to size.

Smaller firms are at a resource disadvantage when compared to larger firms and may therefore not be able to invest in the hiring and training of international personnel. Dunning's (1980, 1988) eclectic paradigm which has been described as the established framework of the multinational enterprise (Buckley, 1988) is but one of many internationalisation theories which postulate that resource scarcity limits the ability of smaller firms to reach more advanced stages of internationalisation. Accordingly, when considering international operations, SMEs are often confronted with greater difficulties in accessing international markets than their larger scale counterparts (Alon, Dana, & Jenkins, 2009; Kalantaridis, 2004; Maharaj et.al, 2012; Roth, 1992; Stokes, 1992; Van Horn, 1979).

The points discussed above are supported by the findings of this study. As discussed in chapter 2 and again in section 5.5.3 the construction sector in New Zealand is dominated by small-medium domestic firms. Seven of the 15 firms interviewed for this study (Firms A, F, H, J, L, M and O) (47 percent) are classified as small-medium. Of these seven firms, five in particular (Firms F, J, L, M and O) concentrate on the domestic market and have very limited or no international operations. The inability to control costs because of lack of market power and limited access to financial and human resources make the external environment for SMEs more uncertain than in a large business (Kalantaridis & Levanti, 2000). This perspective is shared by two executives (Firms F and L). Given their size, the firms are constrained by limited financial and human resources, two factors that are considered vital for successful internationalisation. Infrastructure projects undertaken at an international scale often require substantial capital investments and skilled personnel; and this can be a major issue for SMEs especially as they may not have the requisite financial resources. This point is also supported by Firm O which

recognises that lack of financial resources is one of the main reasons why many New Zealand civil construction firms primarily concentrate on the domestic market. The eight New Zealand civil construction firms (Firms B, C, D, E, G, I, K and N) that have managed to successfully internationalise to the target markets are larger than those that primarily focus on the domestic market. This suggests that size and consequently availability of resources (financial and human resources in particular) play a critical role in internationalisation. Accordingly, small-medium New Zealand civil construction firms may struggle to accumulate the requisite financial and human resources necessary for successful internationalisation to the target markets.

The literature on internationalisation of SMEs however does not fully support the above discussion. Some studies on internationalisation of SMEs suggest that in order to achieve economies of scale and growth, smaller firms are more likely to recognise the need to internationalise (Bilkey & Tesar, 1977), while other researchers propose that there is an insignificant relationship between the size of a firm and its ability to internationalise (Cavusgil, 1984). In arguing for the "mixed" impact of size on a firm's international activity, Cavusgil (1984) for example, proposes that size is only a significant factor where the firm is very small and that beyond some point internationalisation of a firm is not correlated with size (Cavusgil, 1984). Rather, successful internationalisation of a firm is dependent on the human capital of an entrepreneur and effective utilisation of the resources that a firm possesses (Bates, 1998; Carter et.al, 1997; Gimeno et.al, 1997; Kalleberg & Leicht, 1991; McDougall et.al, 1994; Oviatt & McDougall, 1994; Reynolds, 1987; Romanelli, 1989; Westhead, 1995(a); Westhead, 1995(b)).

Indeed, the success of an SME's international operations often is determined by the attitudes of the management rather than market and environmental factors alone. Firms A and B from this study support this view. Executives from both Firm A and B state that the senior management of their respective organisations were committed to developing an international presence from an early stage, a view that strongly supported by the expansive literature on International Entrepreneurship. They further add that the management and staff play an integral role in determining the success of a firm at an international scale. The two firms highlight that with diverse management know-how the firms have been able to introduce better human resource practices, acquire the necessary funds to undertake more promising competitive strategies, and identify new market opportunities in the target markets. The ability of a firm to identify appropriate partners, investors and advisors in a foreign market is also particularly important for SMEs as they may not always have the experience to operate in an international

setting (Greene & Brown, 1997; Karagozoglu & Lindell, 1998; Oviatt & McDougall, 1994). This aspect is supported by both Firm A and B whose operational strategies are supportive of the fact that partnerships with key stakeholders and local firms in the target markets can be vital in helping a firm understand the dynamics of operating in the target markets. Partnering with local firms in the target markets has helped the firm raise requisite human and financial resources. This view is also shared by Firm H. The firm is only just starting to make in-roads in markets like India and China and emphasises local partnerships which are vital in assisting the firm not only to obtain resources, but also helped in gathering local market knowledge. Firm H also highlights that hiring staff with extensive international experience has helped the firm better understand and develop a presence in both India and China.

International engagement is crucial for New Zealand civil construction firms as they may find it difficult to achieve economies of scale in the long run if they only focus on the domestic market alone, an aspect supported by five firms (Firms A, B, C, H, and K). Finally the discussion suggests that these five firms, ranging in size from small to large, have been proactive in recognising international prospects as they see limited growth opportunities in New Zealand. These five firms exhibit that the need for internationalisation can be realised at an early stage, an aspect strongly supported by the theory of International Entrepreneurship (Oviatt & McDougall, 1994; Zaheer, 2005). Also, the attitude of the management played a critical role in determining the strategic direction of the firms, which supports the idea that the attitude of the management determines how the management perceives benefits and risks of internationalisation (Holbrook et al., 2000; Langston & Teas, 1976; Welch & Luostarinen, 1988). The above discussion further supports the fact that size may only be a significant factor where the firm is very small and beyond some point internationalisation of a firm is not correlated with size (Cavusgil, 1984; Covin & Miller, 2013; Oviatt & McDougall, 1994).

Although, size of a firm may not affect its internationalisation (Cavusgil, 1984), the size of a firm can invariably affect its ability to compete effectively especially in an international context. In the case of a multidomestic industry such as construction, competing firms can be either domestic or multinationals with independent operations in a given market (Dowling, Festing & Engle, 2013; Porter, 1980). Indeed as stated in the table (6.1) below, the construction market in countries such as India, China, Indonesia and Vietnam have a strong presence of large international contractor firms from Europe and the US seeking new markets in Asia.



***Table 6.1 Top Ten International Construction Firms in Asia***

<b>Rank in Asia (Based on revenue earned)</b>	<b>Company</b>	<b>Country of Origin</b>
1	HOCHTIEF AG	Germany
2	Grupo ACS	Spain
3	Bechtel	U.S
4	Fluor Corp	U.S
5	China Communications Construction Group Ltd	China
6	Leighton Holdings	Australia
7	Saipem	Italy
8	BOUYGUES	France
9	China State Engineering Corporation	China
10	Hyundai Engineering & Construction Co. Ltd.	S. Korea

Source: (Reina & Tulacz, 2013)

In addition to the companies outlined in the above table, there are also a growing number of firms from markets like South Korea, China and Brazil seeking to benefit from the opportunities that the target markets offer (Reina & Tulacz, 2013). The construction markets in the target markets are highly competitive, margins are thin and domestic and international contractors dominate large projects (Ofori, 2010). Accordingly, the construction markets in these countries are characterised with intense competition, which can be a significant issue for New Zealand civil construction firms. This view is shared by two firms in this study (F and M) who state that construction projects whether domestic or international normally operate on very thin profit margins. Given the level of investments required for undertaking projects on an international scale, financial risk is high. The risk of losing out on the investments made especially in infrastructure projects is significant as firms do not necessarily make profits on such projects (Hayes et.al, 1987; Ofori, 2010). The two respondents agree with this point and state that given their limited financial resources such risks can have significant implications for the future of the firm.

As discussed earlier, size of the firm is identified as a significant issue when competing for work in the target markets by 20 percent of the firms interviewed for this research (B, F, L and M). Although New Zealand civil construction firms are considered to be significant players in

the domestic market, on a global scale they are relatively small. For example, the average annual turnover of the top 10 international construction firms is approximately US\$20.4 billion (Reina & Tulacz, 2013) which is approximately 20 times higher of the average total earnings of the 15 New Zealand respondent firms (approx. US\$1.04 billion). Also the average number of employees of the top 10 international construction firms is approximately 83,659 employees (Reina & Tulacz, 2013) which is approximately 45 times higher of the average number of staff employed by all the 15 respondent firms (approx. 1851 employees). Given the comparison both in terms of annual turnover and number of employees, it is evident that New Zealand civil construction firms are comparatively small in world terms.

This means that it is perhaps more difficult for New Zealand civil construction firms to be noticed amongst other large players, without any significant differentiator especially on an international scale. However, developing such distinction requires both significant financial and human resources which may not always be available (Ofori, 2010). Eight firms (B, D, F, G, H, K, L, and M) identify with this point in particular. Responses from these firms suggest that in order to get noticed amongst large international players it is important to create niche capabilities that are recognised at an international scale. However, developing and marketing such capabilities can be especially challenging if the firm does not have the requisite financial or human resources. It can be concluded that the small size of New Zealand civil construction firms not only affects their ability to break into markets such as India China, Indonesia and Vietnam but also affects their ability to effectively compete against dominant local and international players currently operating in those markets (*sub-research question 1.4*). Based on this analysis it appears that given their size, *New Zealand civil construction firms may lack sufficient financial and human resources to compete effectively in the target markets (proposition four)*.

The discussion in section 6.2 indicates that aspects like ownership advantages, human resources, networking, attitude of the management, and firm size play a critical role in ensuring the international competitiveness of a firm. The analysis in this section highlights that firm-specific advantages have had a significant impact on the international competitiveness of New Zealand civil construction firms. The findings of this study present a mixed response from the firms, with five of the firms suggesting that the ability of a firm to succeed in an international setting is determined by a combination of factors which include ownership advantages, human resources, networking and the strategic vision of the management. On the other hand, the

absence of any one of these advantages may constraint the international success of a firm. Responses from 11 firms indicate that firm size may have a direct impact on the firm's ability to develop sustainable firm-specific advantages necessary to successfully compete in international markets. This aspect also affects the attitude of the management towards international projects. The analysis of this section answers the first research question and four research sub questions (1.1-1.4) of this study and is suggestive that firm-specific advantages do influence the international competitiveness of New Zealand civil construction firms. The next section moves on to answer the second research question of this study and presents an analysis of the possible barriers that might constrain New Zealand civil construction firms from successfully internationalising their operations.

### ***6.3 Barriers to Internationalisation***

A number of studies have analysed the barriers to internationalisation faced by SMEs (Campbell, 1996; Katsikeas & Morgan, 1994; Leonidou, 1995; Morgan, 1997). The barriers to internationalisation can be broadly categorised into five main areas: firm and industry specific barriers, financial barriers, managerial barriers and market-based barriers (including both in the domestic and international markets). It is widely accepted that a firm may face barriers prior to internationalisation (Morgan, 1997). Also, the perceived barriers can vary in intensity as it is determined by the extent of international experience of an individual firm (Burton & Schlegelmich, 1987; Cavusgil, 1984; Katsikeas & Morgan, 1994; Kedia & Chhokar, 1986). As the second research question of this study aims to analyse the possible barriers that may constraint the internationalisation of New Zealand civil construction firms this study, the discussion in this section therefore, is similar in its conceptual nature to earlier studies of the perceptions of barriers to internationalisation (Katsikeas & Morgan, 1994; Morgan & Katsikeas, 1997, 1998). Given that SMEs are more likely to take greater risks in building their presence in a foreign market it might be expected that these firms, compared to larger more established firms, view traditional barriers to internationalisation differently. Accordingly, the discussion that follows analyses how factors such as geographic and psychic distance, financial resources, market and institutional knowledge and international experience constraint the ability of New Zealand civil construction firms to undertake international operations.

#### ***6.3.1 Impact of Geographic and Psychic Distance on Internationalisation***

The field of international business has paid much attention to the impact of cross-national distance on the decision to enter international markets, the sequence of market entry, and the choice of entry mode, among other factors (Freeman et.al, 2012). These research topics lie at the core of the field of international business, and researchers have for decades used geographic distance as a main explanatory variable (Werner, 2002). Indeed, geographic distance is an important factor that New Zealand firms consider before going international. Geographic distance imposes an obvious disadvantage on companies seeking to go international from a New Zealand base, as the distance from major markets is significant. For example, it is easier for a Belgian or a Danish firm to expand beyond their domestic borders because of their proximity to large markets than it is for a New Zealand firm (Shaw & Darrock, 2004). This basic intuition is also strongly supported by international evidence that suggests that physical distance from key markets has a substantial negative impact on the size of a country's international economic relationships (Ojala & Kontinen, 2010; Shaw & Darrock, 2004).

Physical distance between markets can explain a considerable amount of variation in trading, FDI (inward and outward) and financial capital flows. This relationship is well tested in the economics literature. For example, the Boston Consulting Group (2001) notes evidence that the distance and size of the businesses are major drivers for overseas investments made by businesses from a given country (Ojala & Kontinen, 2010; Shaw & Darrock, 2004). For New Zealand, the absence of large proximate markets means that interaction and investments within other international markets (such as the target markets) is relatively lower as compared to other countries of a similar size (for example Ireland, Denmark and Sweden) which have easier access to large markets (Shaw & Darrock, 2004; Smallbone & Wyr, 1995). This is further supported by a study conducted by Chetty and Hamilton (1996) which identifies Australia as the most popular market served by New Zealand firms with two-thirds of firms targeting this country as their major overseas market (Chetty & Hamilton, 1996). This is not surprising considering Australia's relatively close geographic distance. The other potential markets popular with New Zealand firms include the Pacific Islands, the USA, and the UK (Chetty & Hamilton, 1996).

The findings from this research suggest that massive geographical distance between the target markets and New Zealand means that most New Zealand civil construction firms tend to operate in markets that are close to New Zealand in terms of geography. Indeed as noted in section 5.4.2 11 of the 15 firms (73 percent) operate in Australasia and eight (53 percent) operate in the Pacific Islands. When questioned how geographic distance affects a firm's internationalisation strategies, five firms (Firms B, F, G, L and M) state that given limited financial resources, making investments in distant international markets can be a challenge for SMEs. Firm B in particular states that travelling to Asia regularly, especially in the early stages of setting up operations can be financially very demanding.

Literature on internationalisation of firms states that most firms first began to internationalise to markets that are close to the domestic market in terms of psychic distance (Ojala & Tyrväinen, 2009; Vahlne & Wiedersheim-Paul, 1973). Psychic distance is a useful construct in that it gauges the degree of difference between cultures. It is often used to indicate the sum of factors that prevent information flowing from one national environment to another. The concept of psychic distance is best explained by the Uppsala Model (Ojala, & Tyrväinen, 2009). The Uppsala Model uses psychic distance to explain the ways in which firms choose to internationalise their operations and the term has become established as an important

explanatory variable in the internationalisation process. The model states that firms gradually enter markets that are further away in terms of psychic distance (Johanson & Wiedersheim-Paul, 1975; Ojala, & Tyrväinen, 2009; Vahlne & Wiedersheim-Paul, 1973). Psychic distance is also an indicator of the geographic distance between two markets.

This point is further supported by the eclectic paradigm. The eclectic paradigm also calls attention to geographic distance, proposing a multidimensional perspective. In this view, countries may be distant from each other not only in the geographic sense, but also in terms of economic, social, cultural, or political differences which make it harder for firms to operate in international markets that are distant from the home country (Dunning, 1993). Eight firms (Firms A, B, C, D, F, I, K and N) interviewed for this study support this point. The firms state that market factors that include political, legal and cultural (mainly language) differences should be of concern to foreign firms when operating in the target markets. According to the respondents, the dynamic nature of the target markets means that differences in legal and political systems can be a challenge to understand. Differing systems between state and local governments can be difficult to comprehend and gathering the right information to meet requirements can be demanding especially if the firm has never operated in that market. Additionally, two firms (Firms C and D) also recognise language as a significant barrier. The two firms see differences in language as a problem especially in markets like China, Indonesia and Vietnam where the official business language is not English. This makes it difficult to understand and interpret necessary paperwork.

Geographic distance between two countries also increases the liability of foreignness that a firm is likely to face whilst considering overseas operations. The concept of liability of foreignness was first introduced by Hymer. According to Hymer (1976) a key factor shaping the internationalisation of the firm is the ‘liability of foreignness’ which increases with the distance between the home and host countries. The Uppsala Model further explains this concept. According to the model any business that seeks to operate in a foreign market faces the barrier of “foreignness” in that market (Ojala & Tyrväinen, 2009). The liability of foreignness concerns extra costs incurred by a firm once it enters a foreign market, which a local firm in that market would not incur. These costs result from investing, operating, and managing operations in the foreign country (Johanson & Wiedersheim-Paul, 1975) and arise due to lack of familiarity with the local business environment, (e.g. supplier, buyer, competitor and distributor) cultural differences, (e.g., adaptation costs) geographical distances (e.g.,

transport and communication costs) and institutional environment (e.g., legal, regulatory, political, sociocultural and economic) (Petersen & Pedersen, 2002).

It has been recognised that international businesses must have strong firm-specific advantages that can be used to offset these costs in a foreign market (Marinova, 2014). However, such additional costs can sometimes result in a competitive disadvantage for a foreign firm especially if the firm has little or no experience of operating in that market. The uniqueness of the target markets for example, is the transitional nature of their industrial and institutional environments (Marinova, 2014). As discussed in Chapter 2 the transition that the target markets have made in the recent years has created tremendous opportunities in the area of infrastructure development for both domestic and international firms. Liabilities of foreignness in the target markets are high as uncertainties in the infrastructure sector are largely structural and challenges in the institutional environment are normally unpredictable, making it difficult for foreign firms to control external factors that affect their operations (Quak, 1991; Marinova, 2014). While this is true for most foreign firms in the target markets, this aspect becomes critical for New Zealand civil construction firms in particular as most firms in the sector lack the experience and market knowledge required to operate in such settings.

Four firms (Firms F, G, L and M) recognise that lack of experience and subsequently limited knowledge of operating in the target markets makes it difficult for New Zealand civil construction firms to understand the market, industrial and institutional environments of these economies. This knowledge, according to these firms is paramount when considering infrastructure projects as the sector is known to have high levels of government intervention and is subject to red tape and bureaucracy which can be very difficult to deal with, especially if a firm does not have requisite information or prior knowledge to devise appropriate strategies in order to overcome these issues. In addition the firms also state that building a presence in the target markets can be very expensive for a foreign firm as the firm would need to invest significant capital to build networks with potential clients, key stakeholders and the government to better understand the local market, industrial and institutional environment.

Given that the firms have limited access to capital resources developing such networks to subsequently build a presence in the target markets can prove to be a very costly exercise. For this reason the four firms feel that they are best to concentrate on markets that are closer to home. This view is further shared by another seven firms (Firms C, D, E, H, I, J and O) that

emphasise the importance of markets like Australia, Papua New Guinea and the Pacific Islands that are close to New Zealand both in terms of geographic distance. Also given that New Zealand civil construction firms have prior experience of operating in these markets, they are more familiar with the business and regulatory environment of these markets compared to the target markets. The firms are also of the view that the level of financial resources required to successfully operate in these markets is low compared to the target markets and find it relatively easier to internationalise to markets that are close to home.

The findings of this study are similar to the research conducted by Petersen and Pedersen (2002). Their study analysed the liabilities of foreignness perceived by businesses in Denmark, Sweden and New Zealand. All three countries are relatively small in terms of their population and market size. Due to limited opportunities in the home market, most firms in these countries are forced to engage in international operations at an early stage of their development. The profiles of the firms analysed from Denmark (201) and Sweden (176) for instance, were very similar in terms of size and level of internationalisation. However, the firms differed in their levels of international experience. For instance, both Swedish firms (30.3 years) and the Danish firms (20.9 years) typically had longer export experience when compared with New Zealand firms (Petersen & Pedersen, 2002). According to the study, the firms from New Zealand (117) had less international experience (16.1 years) and operated in fewer countries.

Petersen & Pedersen (2002) also suggest that the ability to adapt to the local government and industry requirements is highly correlated with the international experience of firms. The more firms have been exposed to foreign markets, and the greater is international experience, the greater the ability to adapt to new local markets. As most New Zealand firms have limited experience operating internationally particularly in emerging markets, the ability to understand and adapt to local industrial and institutional requirements in the target markets would be limited. The points discussed in this section suggest that New Zealand firms tend to focus on markets that are less risky or markets they are familiar with, rather than pursuing markets like the target markets that are distinctly different from New Zealand, *thus supporting proposition five of this study, which suggests that New Zealand civil construction firms will prefer international markets that are familiar and close to New Zealand (sub-research questions 2.1 and 2.2).*



### *6.3.2 Importance Financial Resources*

The ability of a business to attract capital is crucial when operating in an international environment (Gertner, Scharfstein & Stein, 1994; Stiglitz, 1989). In developed countries, capital markets are sufficiently well developed and deep for financing potential prospects. However, capital markets in emerging economies often lack sufficient financial depth as until recently these economies had severe investment restrictions in place, which made it difficult to attract foreign investors. This aspect may significantly limit the ability of foreign firms to obtain capital that may be required to undertake work in these markets (Barney, Khanna & Palepu, 1997, 1999; Khanna & Yafeh, 2005; Stiglitz, 1989). Although research suggests that as compared to China for example, India's ability to attract foreign capital for infrastructure development is less, the economy has still managed to attract large international players to work on various projects. In addition, India's banking system is more efficient and foreign and private owned banks have a market share of around 25 percent. This aspect is critical for many international civil construction firms considering infrastructure projects as capital for the projects is often sourced from the market of operation.

However despite this, access to debt capital is largely controlled and most banks act in consent with the government to support political initiatives and priorities in a given sector (Li et.al, 2004; Whitley, 1999). This aspect particularly affects infrastructure projects as the state may prioritise some projects over others depending on the need for and the budget of a given project. There are also many legislative hurdles that may preclude international civil construction firms operating in the target markets from looking overseas to attract capital. Apart from that, the relatively weak governance at times may make it difficult for international civil construction firms in particular to seek funding in the local market (Enderwick, 2007). The points discussed are shared by two New Zealand civil construction firms (Firms B and K) that currently operate in the target markets. The executives suggest that the government bodies in the target markets have strict limitations on the amount of capital that the firm can borrow from the local market to undertake a given project. These restrictions are often determined by the importance of the project for the local community and for the government. Also these capital restrictions may vary between states or provinces in countries such as India and China.

Given the paucity of funds in the target markets, large domestic and international civil construction firms therefore enjoy privileged access to capital resources that small stand-alone firms might lack in such settings (Khanna & Palepu, 1997, 1999). The availability of a pool of

capital has proven to be a strong mitigation mechanism that helps international civil construction firms in particular remedy capital market failure. The genesis of leading construction groups (domestic and international) in markets like India and China reflects this advantage (Shiba & Shimotani, 1997). Capital access allows these groups to sense and respond to opportunities in the market place, in essence internationalising the role of the unaffiliated investor in a vibrant capital market. This barrier is particularly important for New Zealand civil construction firms to consider as limited access to necessary capital may hinder them from undertaking infrastructure projects in the target markets. For example, according to research, only 11.8 percent of New Zealand firms have external equity partners (Kirpalani et. al, 1987). This may be a reflection of the difficulty of attracting capital investment in small firms (Ali & Camp, 1993; Buckley, 1989; Coviello & McAulley, 1999; Fillis, 2001; Karagozoglu & Lindell, 1998; Kirpalani et.al, 1987).

Given that infrastructure projects are large scale and often require substantial finances, lack of financial resources can pose as a major barrier for New Zealand civil construction firms. Responses from three firms (Firms F, L and M) support this point. The executives suggest that given the size of their firms and limited financial resources, it becomes practically impossible for them to partake in some of the large scale projects that offer promising returns. Also they find it difficult to partner with local firms to raise the necessary funds in the target markets. Hence, New Zealand civil construction firms may find it difficult to sustain their operations in the target markets without local support to fund their operations. Taking this into account, New Zealand civil construction firms seeking to operate in such settings rely on local connections and relationships to overcome financial obstacles and complement such inflows through the creation of an internal capital market to fund and support the activities in that given foreign market.

### *6.3.3 Importance of the Domestic Market*

#### *6.3.3.1 Role of Government Spending in the New Zealand Construction Sector*

As outlined in Chapter 5, the construction sector is the fifth largest sector in New Zealand. The sector is a major employer representing 7.7 percent of the total workforce in New Zealand. It is also seen as a key driver of economic growth and accounts for 5 percent of GDP. Of the three sub sectors (residential construction, civil construction and non-residential), the civil construction sub-sector plays a vital role in the growth of the domestic economy. For example, the civil construction sub-sector employs approximately 20,000 workers (72 percent of the total workforce) making it the largest employer in the New Zealand construction sector. This sub-sector also represents some of New Zealand's largest construction firms.

New Zealand civil construction firms concentrate primarily on the domestic market. However, unlike many countries, the New Zealand civil construction sub-sector lacks privately funded projects, therefore firms in the sector are heavily reliant on work that is government initiated. The public sector plays a critical role both as a direct purchaser and as a developer of legislation, policies and tools that influence private sector behaviour (The New Zealand Sectors Report, 2013). Also the government, to an extent, provides certainty in planning for the construction sector and invests counter-cyclically, thus providing the necessary support to businesses when faced with a downturn in private investment. This point is supported by the findings of this study. In the aftermath of the global financial crisis, government spending played a critical role in keeping many firms in the civil construction sub-sector afloat. For instance, of the 15 firms interviewed for this study, 11 firms (B, C, D, E, G, H, J, K, L, M and O) are actively involved in various projects that are a part of the NZ\$7.5 billion government spending on domestic infrastructure for the period of 2009 – 2013. The firms acknowledge that government initiated projects have been the lifeline for the sub-sector during and post the financial crisis. This is also supported by the discussion in chapter five which presents examples of firms that are heavily reliant on public spending for the projects they undertake in New Zealand.

Much of the work that was undertaken by the firms especially during 2009-2011 had a focus on commercial development and improving existing infrastructure in the lead up to the Rugby World Cup. These included some of the largest projects in New Zealand at the time and created an array of opportunities for domestic firms in this sector. Examples of these projects include the development of the road flow from Auckland Airport to the City, upgrading Eden Park Stadium, resolving the Victoria Park Motorway bottleneck and upgrading Kingsland Station

(Gibson, 2009) as outlined in chapter four. Eight of the 11 firms (D, E, G, H, J, L, M and O) admit that the opportunities in the domestic market during 2009 – 2011, meant that the firms were less likely to consider overseas projects. The projects also stretched existing human and financial resources available to the sector at the time (Gibson, 2009), which according to the firms added to the difficulty of considering markets beyond New Zealand.

In addition to the projects outlined above, the government plans to continue investing in a range of large scale infrastructure development over the next four years (2014 – 2018) (The New Zealand Sectors Report, 2013). For example, the Roads of National Significance Programme represents one of New Zealand's biggest ever infrastructure investments. This project includes seven roads of national significance, which have been identified as essential routes that require priority treatment to facilitate economic growth and productivity. The estimated cost of these projects is in the order of NZ\$3 billion and the government intends to complete these projects during 2012 – 2015 (NZTA, 2012). Additionally, the government also plans to invest NZ\$1.6 billion and NZ\$485 million respectively to upgrade the commuter rail networks in both Auckland and Wellington. A NZ\$5 billion investment is also planned through Transpower to update the national grid.

Irrigation and water storage development is also a priority for the government over the next three years (2013 – 2016) as it plans to invest approximately NZ\$400 million to upgrade current facilities (The New Zealand Sectors Report, 2013). With these projects the government hopes to create more work opportunities which is further likely to suppress the need for firms to consider international operations in the foreseeable future. It is important to note that the above examples are projected forecasts of the investments likely to happen in the next few years. This is because neither the central nor local governments have a clear picture of what they will be spending on new capital projects more than a couple of years from now. This indicates that there is little emphasis given to long term planning based on work that is likely to be secured from the government.

### 6.3.3.2 Impact of the Christchurch Rebuild

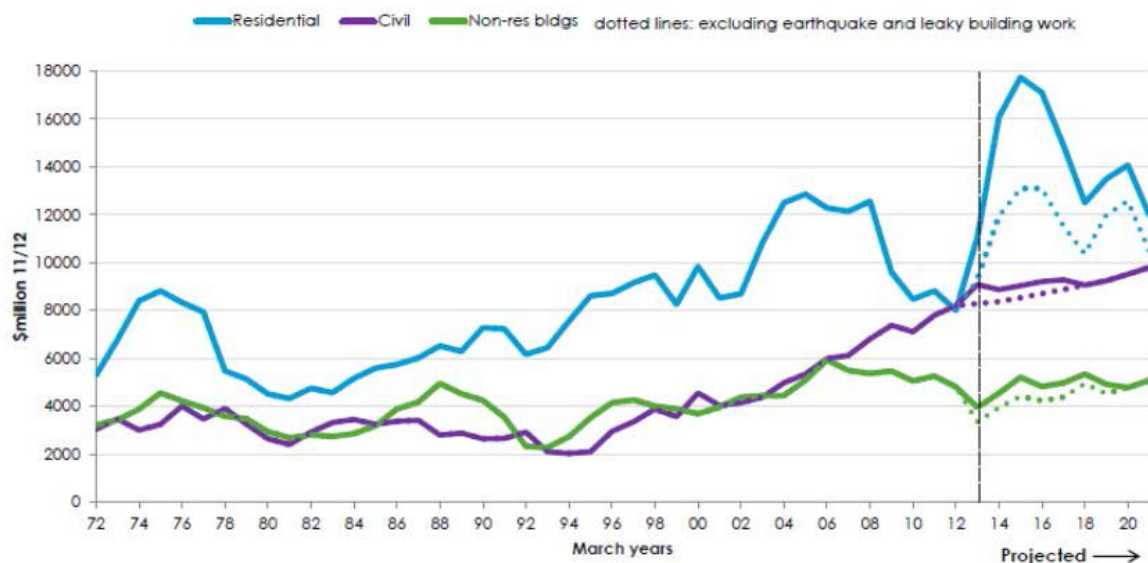
Workloads in the New Zealand construction industry are entering a period of unprecedented highs, largely driven by the Canterbury rebuild as seen in the figure below.

**Figure 6.3 Projected Growth of the New Zealand Construction Sector**

#### Construction industry workloads: historical and projected

Construction is heading for an unprecedented boom, driven by the Canterbury rebuild, Auckland housing, infrastructure demand and remedial weather-tightness work

Construction industry workloads, historical and projected  
NZ\$, millions (nominal); 1972–2020



(Source: Ministry of Business, Innovation and Employment, 2013)

The estimated value of work to be generated in the civil construction sub-sector over the next six years (2014 – 2020) is projected to be NZ\$900 million (figure 6.3). As seen in the figure, amongst other factors, the devastating earthquakes in Christchurch will have a significant effect on the workload of the heavy engineering and civil construction firms (The New Zealand Sectors Report, 2013). The redevelopment of Christchurch has diverted the attention of most of the firms in the sector with many of them actively involved in the restoration and rebuild of the city. Current and projected workloads according to government estimates will test the capacity of the industry to meet the demand and the ability of the firms to maintain quality. The redevelopment of Christchurch is seen as one of the most significant projects for the New Zealand construction sector for the next decade. This aspect is supported by the discussion in chapter 3, section – 3.3.1.6. As discussed in this section, the rebuild is expected to generate around NZ\$4.1 billion in direct GDP which equates to around 54 percent of one year's national construction GDP output (PriceWaterhouseCoopers, 2011). This is based on the assumption that 70 percent of the initial estimated NZ\$20 billion costs are related to construction

(PriceWaterhouseCoopers, 2011). However, the estimated contribution to GDP is likely to be much higher as the current estimated cost of the rebuild stands at NZ\$30 billion (The New Zealand Sectors Report, 2013). Further estimates from the government and industry analysts indicate that the development of Christchurch is going to stretch existing resources (both human and financial) in the sector (The New Zealand Sectors Report, 2013).

The findings of this study support the points discussed above. Seven firms (D, E, G, J, L, M and O) are actively involved in the re-development of Christchurch and identify the rebuild as a significant avenue for work over the next decade. As the rebuild progresses the firms expect prices to increase across the sector as demand for construction services remains strong. It is also anticipated by the firms that this augmented demand is likely to bring about growth in employment within the sector. In light of the rebuild the seven firms have also deferred other projects. These developments are likely to have a significant impact on the international expansion of the firms in the sector. Responses from the seven firms are indicative of this. Given the prospects in Christchurch, the seven firms are most likely to focus their efforts in the domestic market. For this reason, they see domestic and international work opportunities as direct substitutes and not complements to each other. They are not willing to risk a stable source of work in the domestic market for possible prospects in international markets.

One firm (Firm F) also indicated that with the availability of work in the domestic market, the firm remains very comfortable with its market position in New Zealand and would need a very strong incentive to consider international opportunities. In essence, according to the firms, the restoration of the city is expected to result in substantial growth in the sector and lead it into the upside of its boom-bust cycle. Additional information gathered from the respondents was also suggestive that the firms were sceptical of international investments as the returns were not immediate. The risk of losing out on financial investments further motivated the firms to concentrate on the domestic market, as the likelihood of making profits on domestic projects is higher than on international projects. This view, however, is not shared by the five firms (A, B, C, H and K) that currently operate internationally. Responses from these five firms indicate that they recognise the limitations of the domestic market and realise the need to undertake international expansion for long term growth and profitability. These points suggest that New Zealand civil construction firms will focus on the domestic market for the foreseeable future.

### ***6.3.3.3 Limited Competition in the New Zealand Construction Sector***

Limited competition in the domestic market is also one of the reasons why New Zealand civil construction firms are not willing to internationalise. The civil construction sub-sector is characterised by a few dominant players. As discussed earlier in section 5.2 – there are only 35 firms currently operating in this sub-sector. Although international firms such as Aecom (US), Leighton Contractors (Australia), Gannell (Australia) and GHD (Australia) operate in New Zealand, the presence of foreign firms is still small. The New Zealand construction sector is a relationship based one. Domestic firms are able to source work more effectively compared to international firms as they have a better understanding of the local market and connections with key stakeholders. The findings of this study are supportive of this point. 12 of the 15 firms (A, B, C, D, E, G, H, J, K, L, M, and O) indicate that much of the work that they source is based on past connections and reputation of the firms in the domestic market. Many projects are “repeat work”, that is the firms are known to undertake similar projects based on their expertise and track record. Building a presence in New Zealand is challenging for foreign firms as they often lack the requisite networks that could help them establish operations in the local market. Dominant local players tend to have access to extensive supply chains and strategic supply agreements with key sub-contractors and suppliers which make it easier for them to obtain future work (Jones, 2009).

Research on New Zealand Inward Foreign Direct investment suggests that the construction sector has the least number of foreign affiliations compared to other industries in New Zealand. As discussed in chapter three, the percentage of foreign investments made in the construction sector, was constant at 0.27 percent both in 2006 and 2011. In contrast to this foreign investments made in the retail trade sector in New Zealand were at 2.8 percent (2006) and 1.9 percent (2011) respectively (Enderwick, 2012). This is suggestive of the fact that the construction sector in New Zealand is not seen as attractive by foreign investors giving local firms a major share of the domestic market. The response from one firm (Firm J) is supportive of this point. Limited foreign investment has restricted the inflow of much needed private capital into the New Zealand construction sector, making local businesses more reliant on both government funding and government initiated projects. This, in turn, has stalled the growth and limited innovation within the sector.

The firm however also indicates that the Christchurch rebuild could perhaps see this pattern change. The recent partnership between New Zealand based civil construction firm Arrow

International and China State Construction Engineering Corporation is a good example of this. The partnership is an illustration of a local company creating an international partnership to help with the rebuild (Wood, 2013). This would enable Chinese and New Zealand firms to enter into a joint venture in both New Zealand and Australia. Executives of Arrow International add that it is intended to assist New Zealand firms bid on projects in Christchurch; the partnership could prove to be a strategic move to bring in much needed foreign capital in the sector (Wood, 2013). Although the partnership is an example of foreign firms participating in domestic construction projects, the international presence in the sector is still very limited.

Given the developments that are likely to occur in the sector over the coming years, (Government initiated infrastructure projects and Christchurch Rebuild), industry analysts such as PriceWaterHouse Coopers and Pacifecon are concerned that the unprecedented 'boom' will be followed by an equally unprecedented 'bust'. According to them inward foreign investment is critical to the long term growth and development of the sector (Gibson, 2011). The analysts also suggest that strategic partnerships between New Zealand and international firms can often lead to New Zealand firms working on overseas projects that are sourced with the help of their existing international partners in the domestic market (Gibson, 2011; PriceWaterhouseCoopers, 2011). Firms B, J and K are supportive of this view. Responses from the executives of these three firms indicate that inward foreign direct investment does not only bring in much needed capital, but collaboration with international players can also act as a springboard for New Zealand civil construction firms to consider ventures beyond markets such as Australia and the Pacific Islands.

Also the firms suggest that such partnerships can reduce the uncertainties of operating internationally. Indeed, international partners can play a critical role in helping New Zealand firms not only acquire capital but also the necessary market intelligence, factors that are required especially by SMEs to succeed in an international setting (Mathews, 2002, 2006). It is therefore crucial that despite promising opportunities in the domestic market New Zealand civil construction firms consider international partnerships and subsequent operations which could reduce the likelihood of the firms being too reliant on work that is generated in New Zealand. Based on the points discussed in this section it can be concluded that international partnerships and subsequent operations in *overseas markets will continue to be a small part of the total activity of New Zealand civil construction firms (proposition six)*. Also given the current state of the domestic market it is very likely that New Zealand civil construction firms



*will continue to focus on the domestic market for the foreseeable future (proposition seven) (sub-research question 2.3).* The discussion in this section answers the second and three sub-research questions of this study as it is evident that aspects such as geographic and psychic distance, financial resources, lack of international experience and opportunities in the domestic market amongst others, constraint the internationalisation of New Zealand civil construction firms.

## **6.5 Chapter Summary**

This chapter presented a discussion of the perceptions and experiences of New Zealand civil construction firms, related government agencies and an industry body around internationalisation in the target markets. Discussion with the respondents gave insights into the nature of the industry and its importance to the domestic economy. It provided a good understanding of the specialisations that the firms have to offer (especially in the area of Transport and Energy Infrastructure) both in the domestic and international markets. The findings also helped provide an overview of the strategic direction of most firms in the construction and engineering sector and their views on the target markets and the prospects they offer. From the analysis noted in this chapter it can be concluded that despite promising prospects 10 of the 15 firms were sceptical of operating in the target markets.

The main reasons that were identified are typical of most firms that represent small resource based economies such as New Zealand, which amongst other factors included firm size and lack of economies of scale. However reasons that are peculiar to the firms that were interviewed included physical remoteness from the target markets, extent of competition in the target markets and strong domestic market focus. Also lack of market knowledge and resources, both human and capital resources were identified as a major issue by firms considering international opportunities. Although the firms are aware of the prospects that the target markets offer, the extent of competition and the possibility of failure due to lack of resources and experience were key factors that made it difficult for 10 of the 15 firms to consider operations in these markets. The firms also highlight the importance of networking when considering operations in the emerging markets.

Reasons for not considering international prospects also includes abundant work opportunities in the domestic which further reduced the incentive to expand beyond New Zealand. It was also noted that although a majority of firms were sceptical of opportunities in the target

markets, a few have moved into them. This indicates that despite the distance and resource constraints some firms have found success and, that New Zealand expertise is well regarded in these markets. This means that New Zealand firms may have the ability to source work in emerging markets. The small size and specialisation of New Zealand civil construction firms suggests that they could offer a range of services including project feasibility, quality control, and architectural expertise such as master planning, design, project implementation management, areas where local businesses are weak. These are areas where New Zealand has acknowledged competencies and the target markets have pressing needs. This suggests the potential value of domestic collaboration, where New Zealand firms with complementary competencies look at working together to access overseas projects.

Further, competitive advantages held by New Zealand civil construction firms, including reputation and technology, are complemented by those of local businesses which may possess capital, government connections and local market knowledge. Finally, the discussion highlights the challenges of the target markets and argues that it is essential that the challenges be balanced against the considerable opportunities that these markets offer. Market size, government policy, bureaucracy and red tape, and political risks mean that local knowledge is critical for international firms to succeed in such settings. Limited experience and knowledge of operating in such conditions raises the value of local partners for New Zealand civil construction firms. Given the value of the business prospects of the target markets, New Zealand civil construction firms must develop effective strategies to overcome the challenges of operating in these markets.

Accordingly, the aim of the next chapter is to present policy implications for the firms and the construction sector as a whole. The implications relate to improved corporate strategy around internationalisation of New Zealand civil construction firms and achieving greater market access in the target markets. The implications emphasise the importance of the firms having a long-term commitment towards the target markets given the benefits they stand to offer. In order to achieve success in these markets, the policies also focus on developing real on-the-ground understanding of the target markets by accessing local networks and propose new business models.

## *Chapter 7 Policy Implications and Recommendations*

### *7.1 Introduction*

Chapters 5 and 6 presented and discussed the main findings of this study. The discussion outlined the characteristics of New Zealand construction and engineering firms and analysed the main constraints that these firms identify with when considering international operations in the target markets. However, simply being able to explain the challenges and linking them to the underperformance of New Zealand construction and engineering firms does not remove the problem. Although difficult, international economic engagement with the target markets is of fundamental importance to New Zealand construction and engineering firms' growth and economic prospects going forward. Therefore, it is imperative to consider possible solutions that could assist New Zealand construction and engineering firms thinking of conducting operations in the target markets.

The chapter presents such possible strategies and policy initiatives to help overcome barriers. The policies proposed are divided into three sections: government policy, industry policy and firm policy. The intention is to offer policies specific to the industry and the firms and also to propose general government policies that aim to assist internationalisation.

### *7.2 Summary Implications of Findings*

This section firstly summaries the principle findings of the research and briefly develops their implications. The key findings and their implications are discussed more fully in section 7.3. First, the real challenge around market access is not simply getting goods into overseas markets free of tariffs or quotas, but is increasingly about helping New Zealand firms access markets that are willing to pay for their good, service, or idea. This involves participating in supply chains, obtaining access to local networks, and developing an understanding of market preferences. Obtaining increased local market access for New Zealand firms is much more about providing in-market services rather than negotiating trade liberalisation agreements with the target markets. Accordingly the first implication is to develop government assistance that will help the firms achieve real market access. This is discussed in section 7.3.1.

Second, the findings as discussed in Chapter 6, when linked to both the nature of the New Zealand construction sector and theoretical perspectives, offer a number of important points. The first is that respondents clearly see themselves as resource constrained and this has implications for both their experience and belief that they do not possess strong competitive advantages. Many firms clearly lack knowledge on how to capitalise on opportunities in the

target markets. The problem is not lack of awareness of these opportunities, but is more related to market entry. This suggests the value of Mathews' emphasis on linkages and leverages and the benefits these bring to learning. There is a need for New Zealand contractors to explore linkages with both firms in the target markets and through domestic collaboration. A consortium of firms offering a range of complementary resources, capabilities and experiences is likely to be in a much stronger position than a single firm in most cases. There is also an important implication for public policy and section 7.3.2 discusses the benefits of establishing a consortium and its importance for sharing resources within the industry.

Third, the results of this study raise interesting issues with regard to the domestic market. Consistent with conceptual approaches the respondents highlight the importance of their domestic operations in providing a basis for the creation of competitive advantages and the accumulation of experience. However, comments such as the view that the domestic and overseas markets are substitutes and not complements is worth noting. This suggests that firms do not enjoy scale economies and the opportunity to deploy capabilities to overseas markets. The view that overseas markets do not provide returns in the short term should also be considered. Larger but delayed returns need to be compared with the immediacy of the domestic market. It is not unreasonable to conclude that perhaps the domestic market is too attractive for New Zealand civil construction firms. A small number of firms appear to enjoy a cosy market position which conditions them to limited levels of competition and little need for significant investment in technological progress or productivity improvement. The domestic market appears to be a major constraint on internationalisation rather than a springboard for overseas expansion. Accordingly an implication of this study suggests that there is a need to better understand sector capability and investment timing so that the firms are able to successfully partake in international ventures. There is also a need to establish an industry network that can better facilitate the internationalisation of firms. Section 7.3.3 discusses these points in greater detail.

The competitive dynamics of infrastructure markets are also a challenge for New Zealand civil construction firms. They recognise that the sector is heavily government influenced and this may disadvantage them when competing for work overseas. Similarly, they seem troubled by the high levels of competition they believe they are likely to face. This suggests the value of building strong firm-specific advantages discussed by one company which was able to use its world class niche capability as a source of bargaining power. New Zealand needs more firms able to establish such valuable, unique and rare capabilities. There are also operational

constraints that firms, particularly those that have not entered the target markets, perceive. For example, a number of respondents mentioned the problem of obtaining or deploying key human resources. This is an area where more creative thinking could be applied. Rather than pursuing the conventional approach of using expatriate staff on projects, there are now opportunities for using third country nationals, network resources, or diaspora of immigrant employees (Enderwick, 2011). More generally, new business models and thinking is required. As an illustration the findings suggest that the authorities in the target host markets may be seeking unique technology or skills in return for allowing participation in local projects. In such cases New Zealand firms may have to rethink their traditional reluctance to share proprietary knowledge or to cede control in the case of local networks and partnerships. This point, the fourth implication, indicates that there is a strong need for New Zealand firms to improve their corporate strategy around international expansion. Details of this are discussed in section 7.3.4

### ***7.3.1 Achieving Real Market Access***

The small size of the domestic market means that the ability of New Zealand firms to sell their goods and services overseas is critical. Internationalisation not only enables New Zealand firms to access larger markets but also helps them benefit from greater economies of scale and specialisation in areas where they have a competitive advantage. Connections to international markets also allow New Zealand firms to access resources, knowledge and ideas that can help boost productivity and growth. Increased international linkages and subsequent foreign investments are therefore critical to lifting not only New Zealand's overall productivity but are also likely to foster growth of the New Zealand construction sector. In order to further integrate with the global economy New Zealand's major policy focus in the past few decades has been through trade liberalisation.

This has occurred mainly in the context of the World Trade Organisation (WTO) and increasingly in terms of bilateral free trade agreements (FTA). The government is enhancing links with international markets and notes that it will continue to give top priority to the trade policy agenda by opening up markets for New Zealand. This trade policy is aimed at giving New Zealand firms better access to overseas markets and ensures that the firms are able to defend against threats of operating in an international market. In an effort to further New Zealand trade interests the government, has an extensive programme of FTA negotiations underway which includes the Trans-Pacific Partnership (TPP) and a trade agreement with the Customs Union of Russia, Belarus and Kazakhstan.

To ensure greater market participation in the Asian region, the New Zealand government has signed agreements with Malaysia, Hong Kong, and ASEAN in addition to countries like Brunei, Singapore and China. New Zealand also has on-going negotiations for a possible FTA with India and is seeking a potential trade partnership with Indonesia. Recognising the opportunities that markets in Asia have to offer, the government has also initiated a programme called NZ Inc. The aim of this programme is to develop market specific strategies for countries that are of vital importance to New Zealand. The NZ Inc. strategies for India and China for example aim to further New Zealand trade interests across sectors such as high-value manufacturing, agritech, dairy, education, tourism, aviation and professional services. These strategies are developed to address non-tariff access issues (Ministry of Foreign Affairs and Trade, 2013, 2015). Implementing NZ Inc. strategies and free trade agreements is a key priority for the government as market access can be a significant challenge for New Zealand firms especially in markets like India and China, as reflected in the findings of this study.

Additionally, to assist New Zealand firms understand the dynamics of doing business in emerging markets, the New Zealand Ministry of Foreign Affairs and Trade (MFAT) and New Zealand Trade and Enterprise (NZTE) also collaborate with related regulatory agencies in India, Russia, China and Indonesia. This is done with the aim of reducing behind the border barriers and support New Zealand businesses in utilising available preferential access to these markets.

Although the prime focus of the policies discussed above is to reduce trade barriers and open doors for New Zealand's commodity exports (such as agriculture, dairy and meat), these strategies have not positioned New Zealand firms well to participate in the strong international trade and investment growth that has occurred in emerging markets especially in the last decade. For example, despite strong trade growth internationally, New Zealand's export to GDP ratio has seen little improvement over the past three decades. At 30 percent, New Zealand's exports to GDP ratio (2012), has increased by just one percent since 1983 (Ministry of Business, Employment and Innovation, 2012; Skilling, 2005). This suggests that increased exporting activity has not been an important driver of New Zealand's economic growth over the past three decades. Apart from exports, the policies have had little impact on the level of outward foreign direct investment by New Zealand firms. For example, New Zealand's FDI outflows in 2004-2013 were 2.0 percent of GDP (Ministry of Business, Employment and Innovation, 2012; OECD, 2013 (b)) which is only one percent higher than the country's total FDI outflows in 1980-2003 (Skilling & Boven, 2005 (b)). The low level of international economic engagement, both in terms of trade and outward foreign investments, raises serious questions about whether this policy approach is working.

The points discussed above suggest that the primary focus on trade negotiations is insufficient to enable New Zealand firms to overcome the challenges of going global from a small, remote economy, which is also evident from the findings of this research. The shift in relative geopolitical and economic power from the traditional centres of developed countries to the emerging economies particularly in Asia is a clear and on-going trend. To capitalise on opportunities that these markets today present, the government needs to create deeper connections and this cannot be achieved only by pursuing FTAs where the prime focus is to open doors for New Zealand's primary exports. Rather the focus should be on developing and marketing New Zealand expertise in sectors like manufacturing and services (e.g. civil construction) that have the capability to generate value added activities. As evident from the findings of this study, the construction and engineering sector does not lend itself to exporting.

For example, the exports from the construction sector accounted for only 3 percent (NZ\$18 million) of the total New Zealand exports in the year 2013 (NZ\$ 5.9 billion) (Statistics New Zealand, 2013).

Increasingly firms are internationalising by establishing operations in the markets of interest. According to the World Investment Report (2014), the total international sales of foreign affiliates are approximately four times more than the total exports of foreign affiliates (UNCTAD, 2014). This indicates that establishing operations is an increasingly important way of entering foreign markets. Indeed, as discussed in this study, New Zealand civil construction firms that have operations in the target markets emphasise the importance of developing a strong presence. According to the respondents establishing such a presence is not only critical for sourcing work in these markets but also important for a firm's long term growth prospects. Establishing such a presence often requires market knowledge and support from government agencies that can help firms understand the dynamics of operating in such settings.

Accordingly, in order to ensure successful international market participation especially from the sectors such as construction, the aim should be to provide services that help market penetration within emerging markets that augment the growth profile of the firms seeking to operate in these markets. The challenge here is to identify the range of services that will assist New Zealand firms as they seek to expand from a New Zealand base. Amongst other aspects, the most important service is providing New Zealand civil construction firms with access to people who have deep market understanding and know how business is done locally, who understand the channels to market and can help identify opportunities as well as open doors for New Zealand firms in the target markets. These services are of particular importance to New Zealand civil construction firms as most infrastructure projects require significant local market knowledge and contacts that can link the firms with foreign government officials and stakeholders in order to successfully secure work. Hence in order to understand the dynamics of the project and the market well New Zealand firms are best assisted by having people and programmes in off shore markets (such as the target markets).

The Beachheads programme currently offered by the NZTE is a classic example of one such programme. The programme plays an important role in providing market support to New Zealand firms across different foreign markets. The main aim of this programme is to provide New Zealand firms with information and insights on markets that are of key interest to New Zealand. In order to achieve this, the programme connects New Zealand firms to a network of



private sector advisors around the world who can act as mentors and provide insights into the realities of growing internationally successful businesses. In addition to other markets, the programme particularly focuses on helping New Zealand firms develop their business in Asia. For example, the programme provides critical insights about markets like India and China as many local consultants and businesses from these markets act as advisors on the programme thereby enabling New Zealand firms to gain reasonable knowledge about the market prior to entry. However despite of these measures, not all New Zealand firms make use of the services that are on offer, as evident by the findings of this study. For example only four of the 15 firms interviewed for this study that have operations in the target markets have made use of the services provided by the Beachheads programme. This suggests that there is a little connectivity between the construction sector and this government agency, highlighting a possible gap that agencies like the NZTE need to address.

In light of this, government agencies such as the NZTE should actively strive to connect with sectors such as construction. This can be achieved by developing strategic linkages with key industry representatives who work alongside NZTE to inform New Zealand civil construction firms of the services that the agency has to offer especially around international expansion. The focus here should be to educate New Zealand firms of not only potential opportunities in the emerging markets but also to provide strategic advice on best market practices that will assist the firms in overcoming the challenges of operating in these dynamic economies. Additionally, the NZTE should aim to develop networks with other New Zealand organisations like Kea New Zealand – that may help achieve access to local market networks in the emerging markets.

Kea New Zealand is a not-for-profit organisation whose purpose is to reach and motivate expatriate Kiwis and ‘friends of New Zealand’ to increase their contribution to New Zealand – thereby turning them into strategic national assets. Kea New Zealand aims to contribute to the economic growth of New Zealand by leveraging its global network to provide New Zealand firms with access to market insights and local networks. NZTE with the help of organisations such as Kea New Zealand could help New Zealand civil construction firms contract with professional services firms such as accountancy etc. located in the target markets. By partnering with local professional services, it may be possible for New Zealand civil construction firms to access market specific information and advice that individual firms may find difficult to obtain. Such initiatives could help reinforce commercially-oriented activities more directly between New Zealand and the target markets. This proposed level of service, which is dependent on deep market understanding, cannot be provided in all markets, at least not with the current or

expected level of resourcing. Rather, agencies such as the NZTE will need to be much more strategic about where they deploy their resources in offshore markets and make substantial investments in markets that hold considerable potential and are vital for New Zealand's economic engagement.

The focus here should be to develop a few key relationships with the governments and key sectors that offer substantial opportunities for New Zealand firms. The real value comes from deep market awareness and this can be developed on the basis of sustained investments in the market. However, New Zealand's offshore representation is currently thinly spread across the target markets. NZTE for example has just two offices in India (Delhi and Mumbai) and one office in China (Shanghai) and the result is that only a basic service can be provided within these markets which are probably insufficient to add value to New Zealand firms seeking to increase their market access in markets like India and China. Further, the cuts of Ministry of Foreign Affairs and Trade (MFAT) staff in 2012 raises doubts towards government commitment of raising New Zealand's international profile. The current Government's (National) decision of reducing ministerial staff was met with much criticism by both government officials and local businesses with many of them suggesting that this decision would further undermine New Zealand's international presence (The New Zealand Herald, 2012). However, more recently the government has proposed strategies to strengthen its international presence in Asia, announcing plans to appoint additional MFAT and NZTE staff in China over the next four years. Similarly, additional investment of \$69 million over the same period is designed to strengthen the presence of agencies such as MFAT, NZTE and the Ministry of Primary Industries (MPI) (Groser, 2014).

These initiatives suggest that the government realises the need to further build its presence in emerging markets, although these measures are still largely focused on opening new markets for New Zealand commodities. The question is, whether these initiatives will enhance the ability of New Zealand firms to internationalise their operations to these markets. Serious thought needs to go into evaluating and rationalising existing initiatives aimed at increasing the ability of New Zealand firms to successfully internationalise. Also, the current policy focus perhaps needs to shift from helping New Zealand firms enter foreign markets, to assisting them in establishing and sustaining their operations in a given foreign market.

Accordingly, the government could concentrate its current efforts to achieve a broader market presence especially in Asian economies, which have become increasingly important for the

economic growth of New Zealand. This could be achieved by establishing government to government linkages. The milk run into China in March 2014, for example, was initiated by the New Zealand government with the intention to restore the reputation of New Zealand dairy products and credibility of the New Zealand brand in the aftermath of the Fonterra botulism scare (Barnett, 2014). The intention here was to lift New Zealand's official presence in China and to provide a more comprehensive message to both the Chinese government and the consumers about the wider economic and social commitment that New Zealand has towards China (Barnett, 2014). Although this strategy was driven with the purpose to rebuild the New Zealand brand in the Chinese market, it serves as an example of the possible actions that the government could take to better market New Zealand expertise in sectors other than dairy at an international scale.

The government could achieve this by focusing on developing a presence in markets that have strong economic growth rates and offer promising opportunities for New Zealand construction capability. Achieving such a presence would require a strong emphasis on identifying strategic actions that may lead to increased foreign investments by New Zealand civil construction firms in markets that are vital to their long term economic growth. For this, the government would need to develop a strategic focus on country engagement in which relationships with key government and industry stakeholders are identified and resources are invested appropriately in sectors of interest (such as infrastructure development). Although this is partly addressed by the New Zealand Inc. India and China strategies, the success of these policies is limited. As discussed in this section, New Zealand needs to be much more strategic about its offshore representation in order to go beyond its current approach that focuses heavily on initial market entry. Rather, the focus here should be on investing resources that help in further building and maintaining New Zealand presence in international markets, which is perhaps lacking in the current government strategies. Given the points discussed in this section, it can be suggested that improving New Zealand's international performance in a material way possibly will require deliberate, sustained attention and action from both the government and related agencies.

### *7.3.2 Need to establish consortia*

When considering international markets firms often rely heavily on market research and support systems that can help them understand the dynamics of a foreign market(s) and assist them in developing appropriate entry modes and strategies. Although this is true for any firm, understanding the dynamics of a foreign market is particularly important for construction firms (Gruenberg & Hughes, 2006). Infrastructure projects are often undertaken on a build-operate-transfer (BOT) basis. The nature of and the risks associated with infrastructure projects demand deep understanding of the market that a firm wishes to pursue. There is a growing trend for governments in emerging markets to place major projects with the private sector. Accordingly, over the last two decades, the BOT approach has become an increasingly important entry mode for private investors to undertake infrastructure projects in the emerging markets (Augenblick & Custer 1990; Qiao et.al, 2001; Walker & Smith, 1995).

In BOT projects, international construction firms often collaborate with local firms, contractors, heavy equipment suppliers and plant and system operators (Augenblick & Custer, 1990). The intention is to build the project, operate it long enough to pay back the project debt and equity investment and then transfer it back to the host government. By nature, BOT projects are extremely complex, both financially and legally. Also these projects demand a thorough understanding of the market environment, labour conditions, supply chains and the key stakeholders that may play a part in the project. Considering the challenges of undertaking such large scale developments, international firms considering infrastructure projects in the target markets often find it useful to establish a consortium in order to successfully bid and complete these ventures. Consortia are one of the ways in which traditionally separate parts of the construction procurement process might be integrated. Sometimes, this integration involves a single firm taking on obligations wider than it is capable of undertaking alone, and then subcontracting elements of the work; at other times, groups of firms get together to act as a consortium to meet the needs of a client (Gruenberg & Hughes, 2004, 2006). The distinctions between consortia, joint ventures and partnering arrangement are however not as clear in practice. This perhaps is because the variants and ad hoc arrangements often blur and confuse the boundaries of the terms as there is often the need to tailor relationships in response to the needs of each project (Gruenberg & Hughes, 2004, 2006).

Accordingly, construction consortia arise in several different forms. Examples of such arrangements may be in the form of developer-financial consortia, contractor consortia, client-developer consortia and single type of organisation consortia. Some are involved in the

essential commercial risk-taking of projects while others are involved in the building production process and some combine commercial risk, construction and service provision. Variants of the consortium concept also depend on the relative size, skills and financial inputs of the various parties needed to meet the specific demands of each project. Consortia are also seen as a way to respond to market pressures caused by size and complexity of projects that require more than a specified building on completion. The continuity of responsibility after the construction phase and into the building – in – use phase has led to a need or desire to integrate with a number of firms whilst working on a given project (Gruneberg & Hughes, 2004, 2006). The other reason for forming consortia could be the efficacy of the consortia both from the clients' point of view and from the point of view of the members of consortia (Pearce, 2003).

Construction firms considering international infrastructure projects enter consortia type arrangement as they may often lack resources, market knowledge, technical expertise and/or high cost of tendering, which makes it necessary to collaborate on projects (Chen & Messner, 2011; Chen & Chen, 1998; Pearce, 2003). Firms also consider entering a consortium as it may provide them with a safe platform to enter a given foreign market. It also helps a firm to identify potential partners and develop local networks in a foreign market. A case in point is the joint venture consortium between Delhi International Airport Private Ltd (DIAL), GMR Group (a leading Indian construction and engineering firm), Airports Authority of India, Fraport AG (internationally renowned German airport operator) and Eraman Malaysia (a wholly-owned subsidiary of Malaysia Airports Holdings) (Airports Council International, 2010). The consortium was created with the intention to beat other domestic and international firms competing to operate, manage and develop the Indira Gandhi International Airport in Delhi. The consortium provided an ideal platform for both Fraport AG and Eraman Malaysia to develop local market knowledge and further their business interests in the Indian market (Airports Council International, 2010).

In many cases consortiums are also developed by large domestic construction firms from a given country in an effort to successfully bid against other international firms competing for a given project in a foreign market. The Australian Urban Cluster is an example of one such consortium. This initiative was first established in the state of Victoria (Australia) by firms skilled in the planning and design of urban infrastructure systems with the intention of securing project opportunities in overseas markets (State Government of Victoria, 2013). The collaboration provided a good avenue for the firms to capitalise and build on their strengths in the planning, design and implementation of sustainable urban concepts and systems. Firms in

this consortium have collaborated to win various international projects, particularly in markets like India and China. This cluster has allowed Australian construction and engineering firms to offer world-class technical expertise while being cost-effective, which has helped them attain a competitive advantage in a price driven industry (Pargaonkar & Ravishankar, 2011).

In view of the points discussed in this section, New Zealand firms should also consider collaboration to create a civil construction consortium. The primary role of this consortium would be for New Zealand civil construction firms to work collectively in order to recognise and secure potential infrastructure development opportunities in target markets. As seen in the example of the Australian Urban Cluster a consortium could prove to be an avenue for New Zealand civil construction firms to gather market knowledge and develop strategic networks with other New Zealand local firms that have prior experience of operating in the emerging markets. Lack of market knowledge was identified as one of the key reasons for not considering operations in the target markets by five firms in this study. Accordingly, New Zealand firms could seek advice from other domestic firms and consultants that have prior experience of operating in markets like the target markets. Such prospective advice can assist the firms gain requisite information on sourcing critical resources (such as labour and capital), contract negotiation and vendor selection for projects. Also, SMEs could consider piggybacking with larger firms in the sector to compete for work in the target markets, instead of considering international operations single-handedly. Similarly a consortium would allow for sharing of resources and assist in better dealing with risks and uncertainties associated with operating in dynamic markets. A consortium places emphasis on the value of linkages and leverages and the benefits these bring to learning as discussed by Mathews (2006).

As outlined in Chapter 3 of this study, internationalisation of SMEs does not always follow the conventional theoretical explanations of internationalisation which are based on the exploitation of ownership advantage. Many small-medium or latecomers firms are known to internationalise without abundant resources, skills and knowledge or proximity to major markets (Mathews, 2006; Oviatt & McDougall, 1994). Indeed successful internationalisation of these firms is determined by their ability to create strategic linkages with other firms (local and international) and key stakeholders. The knowledge gathered from these linkages allows the firm to learn and adjust its strategies that best suit the requirements of a given foreign market. Accordingly, strategic linkages created through a consortium may prove to be a valuable source for gathering both knowledge and resources for New Zealand civil construction firms prior to considering operations in the target markets. Domestic collaboration would also

allow New Zealand firms in the sector to combine their resources and expertise to secure work in the intensely competitive environment of the target markets. Thus a national alliance could perhaps help New Zealand civil construction firms gain competitive advantage and realise value from operations in the target markets.

Amongst other forms of collaboration, consortiums are increasingly becoming a valuable tool under the PPP model to bring together the strengths and expertise of various local and international firms under one umbrella. Examples given in this section indicate that international construction firms recognise the value of a consortium in providing a wealth of expertise, considerable experience, high profile and good reputation, factors that can be critical for competing in the emerging markets. This is supported by literature that emphasise the importance of a well-organised and defined consortium for the parties taking a stake in infrastructure projects (Jefferies, Gameson & Rowlinson, 2002). Thus a consortium could prove to be a vital platform for New Zealand civil construction firms to further their business interests in the target markets.

### *7.3.3 Industry Capability Network*

Whilst there is minimal definitive research, it is not unreasonable to conclude that the New Zealand construction sector is inefficient and ineffective because of two reasons. First, the firms and the sector as a whole operate in an environment of conflict rather than collaboration (PriceWaterhouseCoopers, 2011). Second, the sector is structured such that the traditional divide of design and construction firms, together with the hierarchy of sub-contractors and suppliers means that much of the knowledge on how to produce better products and services more efficiently is fragmented and often not shared (PriceWaterhouseCoopers, 2011). Thus there is a need for the industry bodies and the firms to focus on the long term growth of the sector, which is most likely to come from international rather than the domestic market. In order to achieve long term growth and benefit from international opportunities, the industry bodies and the firms need to work collaboratively. The possibility of a consortium discussed in the earlier section could be realised through the development of an industry capability network. The primary aim of this network would be to recognise opportunities and market New Zealand civil construction capabilities to an international client base. In doing so, the network could link New Zealand civil construction firms to potential infrastructure projects across different international markets.

A similar service is offered by the Australian Industry Capability Network (ICN). ICN Australia particularly focuses on linking Australian civil construction firms to international infrastructure projects (ICN, 2013). Apart from other international markets, ICN Australia has been quick to recognise growing infrastructure opportunities in Asia, with a number of Australian construction and engineering firms partnering with key stakeholders and businesses in the region. With the assistance from ICN, Austrade (Australian Trade Commission) for instance, conducted a trade mission to China in 2010. The primary aim of this trade mission was to inform the Chinese government of Australian construction and engineering capabilities. As a part of the effort, Austrade with the help from ICN launched an airport infrastructure directory during this trade mission. The directory showcased Australia's aviation infrastructure services and technology expertise. During the mission Australian delegates met with key decision makers, government authorities, system integrators and potential customers of airport-related services at Chinese airports (Austrade, 2010; Austrade, 2013 (a &b)). Such efforts highlight that ICN Australia does recognise the importance of emerging markets in Asia and is helping Australian firms identify opportunities in the region.



The four industry bodies (NZCIC, CSG, NZCID and HERA) in the New Zealand construction sector could play an important role to better direct and support New Zealand civil construction firms and the sector. Presently the main function of the industry bodies is to promote the long term growth and productivity of the firms and the sector in New Zealand. Although the main focus of these bodies is to promote the development of firms and the sector nationally, organisations like HERA for example are making a gradual progress in promoting the industry's capability at an international level. As discussed in chapter 5, the industry development division of HERA for example facilitates New Zealand firms to better understand international markets and possible opportunities that they present through their "roadmap process". However despite these measures, there has been limited success in linking New Zealand firms to potential opportunities in overseas markets. One of the main reasons identified by the findings of this research is the absence of an overarching strategy or a domestic network that would link the firms and the industry bodies in the sector to the government and related agencies to help better understand markets beyond Australasia and successfully market New Zealand capabilities. This therefore suggests the value of an industry capability network that could bridge the existing gap between the firms, industry and the government, as detailed below.

The proposed industry capability network could facilitate greater interaction amongst the government, industry bodies, and the firms. This interaction may perhaps allow the firms and the sector as whole to operate in an environment that fosters more collaboration and greater sharing of knowledge and resources. As discussed in this study, respondent firms that have current international operations believe that the New Zealand civil construction sector needs an industry network that can act as a platform for firms to both identify new potential prospects and market the capabilities of the sector on an international scale. In order to address this gap as proposed earlier in this chapter, the New Zealand industry capability network could also work together with government agencies such as NZTE, to help identify potential international opportunities in markets such as India and China that match existing capabilities of the New Zealand construction sector especially in sustainable urban architecture, baggage handling and aviation systems and earthquake engineering for example.

Further, industry representatives like the NZCIC and the CSG could partner with NZTE and the MFAT to conduct seminars to educate potential international clients of the New Zealand construction capabilities. In addition to marketing New Zealand expertise, these seminars could perhaps help New Zealand civil construction firms identify and connect with potential partners.

Lack of market knowledge and capital were amongst the key reasons for not considering internationalisation. The presence of an industry capability network could perhaps help in resolving this issue. For example, the network could invite firms that have current operations in Asia to share their perspective on doing business in the region. This may assist other firms in the sector to better equip them with requisite knowledge essential for operating in these markets. Also the network could work closely with other government agencies like the New Zealand Export Credit Office (NZECO) to assist firms in overcoming government related financial requirements when considering international projects (New Zealand Export Credit Office, 2009).

NZECO is a government agency that specialises in offering a range of insurance and financial guarantees which complement private sector provision and assists New Zealand firms in overcoming financial barriers with new overseas opportunities. Insurance and financial guarantees can be critical in competing to win international contracts, mitigating buyer repayment risks and accessing additional credit facilities from foreign financial institutions. Such guarantees are particularly important for New Zealand civil construction firms as the finances required by these firms undertaking infrastructure projects are relatively higher when compared to other service based firms. For example, New Zealand based Glidepath Limited secured a NZ\$40 million baggage handling and security screening contract in the US with support from NZECO. As the project was partly funded through US Federal money there was a requirement for Glidepath to post an initial bid bond followed by performance and payment bonds upon award of the contract (New Zealand Export Credit Office, 2009). NZECO underwrote these bonds which enabled them to be issued by Liberty Mutual Insurance Company (one of the largest surety bond providers in the US) and helped Glidepath win the contract. It would have been difficult for Glidepath to win the contract without the bond guarantee provided by NZECO (New Zealand Export Credit Office, 2009). Accordingly, the industry capability network could collaborate with NZECO to better assist New Zealand civil construction firms dealing with financial regulations when considering international infrastructure projects.

The capability network could also create linkages with other similar industries bodies in the target markets. Collaboration at an industry level could assist in creating an operative network at a local level in these markets that would allow New Zealand firms to gather necessary resources and market knowledge, critical to attain a competitive advantage and ensuring success in a foreign market. Such a network may perhaps encourage overseas construction

activity and help increase international investments from New Zealand civil construction firms, an aspect vital for the long term development and growth of the sector.

### ***7.3.4 Improved Corporate Strategy around International Expansion***

International engagement is a vital aspect for New Zealand firms; however as discussed in this study New Zealand civil construction firms are very sceptical of internationalising their operations to the target markets. The barriers identified by the firms included lack of international experience, market knowledge, resources (human and capital), level of competition, bureaucracy, differences in market factors (political, legal and cultural differences) and corruption. Hence the corporate strategy of New Zealand civil construction firms considering projects in the emerging markets must be modified to suit the requirements and challenges of functioning in the target markets. Accordingly this section discusses possible recommendations that may help international corporate strategy.

#### ***7.3.4.1 Developing New Business Models: Importance of Alliance***

The current corporate strategy of New Zealand civil construction firms suggests that the firms do not necessarily see partnership or collaboration as a tool to secure work in either the domestic or international context. To succeed at an international level New Zealand civil construction firms might benefit from developing strategic alliances at a domestic level. As discussed in chapter three of this study, governments in the target markets face a challenge to meet the growing demand for new and better infrastructure services. Construction procurement by the public sector is seen as problematic in the emerging markets. Foreign firms operating in markets like India, China and Indonesia have expressed concern with traditional approaches to procurement by local authorities given the red tape and bureaucracy associated with infrastructure projects, which is also supported by the findings of this study.

Literature on infrastructure opportunities in the emerging markets illustrates that the traditional interface between clients and contractors often causes problems which constraints innovation and sometimes inhibits the presence of foreign firms (Ministry of Finance, 2010; UNESCAP, 2011). Recognising this, governments in the target markets have found that partnership with the private sector is an attractive alternative to increase and improve the supply of infrastructure services. Accordingly, construction projects in the target markets are increasingly undertaken through Private-Public Partnerships (PPP). Projects that are initiated under the PPP model are collaborative in nature (PricewaterhouseCoopers, 2005; Shaik & Narain, 2011; UNESCAP, 2011). In addition to a consortium as suggested in section 7.3.2, interfirm collaboration or

alliance, is an equally valuable strategy under the PPP model to secure work in the target markets.

Interfirm collaboration has become a crucial component of the pursuit of competitive advantage in international construction. Collaborations or alliances offer a unique opportunity to combine the distinctive competencies and complementary resources of participating firms (Geringer & Hebert, 1991). Foreign firms considering infrastructure projects in the emerging markets often collaborate with local firms. Besides fulfilling operational objectives, a foreign firm may get involved in an alliance for a number of reasons. One is to enhance organisational learning (Geringer & Hebert, 1991). This is particularly important if the firm has no prior knowledge of operating in that market. Partnering with a local firm can provide requisite market knowledge that can help the firm improve its strategic positioning in a foreign market (Mathews, 2006). The extent of competition normally observed in the target markets also makes it necessary for foreign firms to collaborate with domestic partners to secure work. One of the respondent firms lends support to this argument. In the early stages of operating in Asia, Firm B established partnerships with local firms to secure work in the region. This approach not only helped the firm minimise its competition but also helped the firm gain requisite market knowledge.

Given that infrastructure projects often carry huge financial risk, collaboration helps the firms involved spread the financial liability associated with that given project. In some cases such partnership can also help firms secure capital to undertake large scale projects (Geringer & Hebert, 1991; Kumar & Devaya, 2008). This holds true in the case of New Zealand civil construction firms where lack of capital and high financial risk were two reasons identified by firms for not considering projects in the target markets. Alliances with local firms can also provide access to manpower from local partners (Geringer & Hebert, 1991). Indeed limited availability of human resources was also identified as a barrier by New Zealand civil construction firms while considering international operations. Networks within construction projects normally include a range of stakeholders but of primary importance are the government and policy officials. Advantages of developing local connections in the target markets include access to knowledge about the local market and links to potential local firms and clients, allowing New Zealand civil construction firms to tap into local knowledge and practices. Additionally a key attribute of local firms is their connectedness with political representatives and officials as well as with potential clients and decision-makers, which is an

important factor since infrastructure projects are known to have extensive government involvement.

From the above discussion it is clear that alliance or collaboration between organisations in construction projects is becoming an increasingly important way of creating corporate competitiveness and client value (Doz & Hamel, 1998; Inkpen, 1998). Research into alliances in the construction industry have also addressed opportunities for knowledge management and learning, aspects deemed critical for success in emerging markets (Barlow & Jashapara, 1998; Bresnen & Marshall, 2000; Holt et.al, 2000). Fong (2003), quoting D'Aveni (1994), argues that participating firms within alliances which move towards arrangements that encourage and support the continuous production of new knowledge are better positioned to achieve competitive advantage. Hence if New Zealand civil construction firms are to succeed at an international level, collaboration with both domestic and firms in the target markets may need to be an essential part of their corporate strategy.

#### *7.3.4.2 Long term Commitment: International Growth in Steps*

International success is generally the result of a long-term commitment to go global. It is instructive that many firms that attain global recognition are characterised by having a long-term commitment to internationalisation. Successful international expansion can be a time consuming task, involving substantial costs and risks. Such investing activity demands expertise in the management of operating assets abroad and a sustained commitment. Accordingly, firms need to have a long-term focus and be prepared to sustain a commitment to international expansion over a period of time, rather than simply be hoping for a short-term payback from domestic activities. This aspect is particularly true for New Zealand civil construction firms which have a strong domestic focus. As discussed in chapters seven and eight of this study, New Zealand civil construction firms are more focused on the immediate gains from the domestic market appear to pay little regard international opportunities that may not offer quick returns on the investments made.

The points discussed in chapter 6 and in section 7.3.3, suggest that in order to achieve long term growth and development, firms in the construction sector need to focus on opportunities in the target markets such as India and China, rather than only concentrating on the current and upcoming projects in New Zealand. Indeed New Zealand civil construction firms need to strategically capitalise on international prospects to move away from the boom-bust cycle that is experienced in the domestic construction sector. This commitment may be driven by

recognition of the limited growth opportunities in the small New Zealand market, the need to diversify operations, or a sense that the only long-term sustainable strategy for the firm is an international growth one. This holds true for five firms (A, B, C, H and K). The strategies adapted by these firms indicate that they recognise the importance of capitalising on opportunities in international markets and so have concentrated on internationalising their business interests. This aspect is most obvious in the cases of Firms A, B, C and K organisations that have always reflected an international growth strategy and have focused on developing their operations beyond Australasia.

Also it is important that the firms have a clear focus on the long-term benefits of international expansion in order to overcome initial scepticism around internationalisation. This aspect is currently missing in the New Zealand construction sector. Most firms in the sector fail to recognise the benefits that they and the sector could gain from increased internationalisation. The current availability of work in the domestic market means that firms in the sector view domestic and international work opportunities as substitutes rather than complements to each other. This therefore minimises the need for New Zealand civil construction firms to develop international markets. However, as discussed in this study, the current boom experienced by the New Zealand construction sector is likely to be followed by a downturn. Hence outward foreign investment is critical to the long term growth and development of both the firms and the sector as a whole. In addition to developing a long-term commitment to international success within the firm, there is also a need to undertake active efforts to align stakeholders such as the government and the industry bodies around this commitment. Such collaboration may help create an environment in the sector that makes it easier for the firms to share not only resources, but also experience of operating in an international setting. This may also allow the firms to cultivate a sustained level of commitment required to build and maintain successful operations in the target markets.

‘Big bang’, ‘bet the company’, movements into international markets are likely to be less successful. If these substantial investments do not work out, the negative consequences can be very serious in terms of firm viability. Therefore the strategy for long-term development of a competitive position in international markets by New Zealand firms is likely to include some initial low-risk moves to test competitive advantage overseas, followed by more aggressive scaling up once international competitiveness is demonstrated (Boven, Bidois & Harland, 2010; Boven, Harland & Grace, 2010). This growth process also needs to involve a deliberate, systematic approach. This approach reflects an understanding that the New Zealand firm will

be on a learning curve, and that a measured approach ought to be taken as the firm ventures out. This aspect is supported by the findings of this study. Three firms (A, B and K) either set up a project office or collaborated with local firms in the initial stages of their operations in the target markets. As the firms developed networks with local firms and key stakeholders the firms were able to gather much needed knowledge and experience of operating in such settings, which led them to undertake projects that required substantial resources and commitment. This systematic approach could help New Zealand firms entering the target markets to not only understand the practices of the local market but also to calculate the level of risk that a firm can carry in that market.

There may be some tension between the imperatives to expand offshore in steps and to expand with scale appropriate to the market. The first step in managing this tension is to understand that it exists and identify the competing priorities. In addition, the firm should select markets that allow for incremental expansion. The extreme volatility and unconventional business methods in emerging markets require different management skills than are needed in the more mature, developed markets. For firms that are unaccustomed to such an environment, operating can be very challenging and expensive. As discussed in this study since New Zealand civil construction firms have limited international exposure and capital flows it is important that the firms approach the target markets in a methodical manner and develop a reasonable understanding of the local environment before planning significant investments in these markets.

#### *7.3.4.3 Investing in Competitive Advantage*

New Zealand firms will succeed in international markets to the extent that they have truly distinctive assets and capabilities that generate economic value relative to their competitors. In the case of construction and engineering firms achieving such distinction can be difficult as the sector is classified as being of low-technological intensity. Non-equity modes of foreign investment such as contracting are widely used by firms in this sector, which makes it difficult for firms to internalise activities (Seymour, 1987). As discussed earlier in this study, difficulties of defining and categorising output in this sector are compounded at an international context, particularly when considering the degree to which the services provided by firms in the sector are internationally tradeable (Enderwick, 1989). In addition to niche capabilities or specialisation, reputation or track record perhaps is most imperative for construction firms, especially in an international context (Quak, 1991).

Firm specific advantages in the case of the construction firms are likely to differ from those normally associated with the success of manufacturing firms. For this reason, New Zealand civil construction firms need to be very clear about how they will create economic value in international markets and the nature of their competitive advantage. This is not the same as assuming that strong financial performance in New Zealand is proof of competitive advantage, and that the New Zealand business model can be successfully replicated offshore. Although good financial performance in New Zealand may be a sign of underlying competitive strength, it may also reflect the absence of intense competition in the domestic market, as seen in the case of the New Zealand civil construction sector.

Winning in international markets often requires strong intrinsic capability (Skilling & Boven, 2005(b)). Examples discussed in Chapters 2 and 6 indicate that a select group of New Zealand civil construction firms have managed to attain competitive advantage in the target markets by offering customised solutions for clients. Their expertise and tailored services have also allowed these firms to build a strong reputation in the target markets. This is suggestive of the fact that New Zealand civil construction firms have requisite capabilities that are needed today. However firms considering international operations have to invest in developing customised products or services that suit the requirements of international clients. Hence identifying a differentiator is paramount to the success of New Zealand construction and engineering especially in an international setting. Currently the New Zealand construction sector does not have an overarching strategy that helps the firms market their capabilities internationally. Recognising this, it is important that New Zealand civil construction firms make sustained investments to effectively market their capabilities to the governments and potential clients if they are to succeed in the target markets. Further, New Zealand civil construction firms also need to invest in developing local networks that will help the firms' access information and resources required to successfully compete in the target markets.

In addition to investing in the development of customised solutions and market knowledge, New Zealand civil construction firms also need to make substantial investments in developing the existing human resource in the sector. Training and subsequent upskilling of local human resources could help the firms to better capitalise on opportunities in the target markets. SMEs that lack capital to source local labour in the target markets can develop networks with local firms to overcome this. Indeed experiences of Firms A, B, C and K indicate that locally sourced employees have played a critical role in helping the firms better understand the dynamics of operating in the target markets and are a prime source of competitive advantage. This is not



just an academic exercise, but one that requires follow-through in critical budgeting and planning processes. The key is to ensure that the firm's allocation of scarce resources, particularly capital expenditure and talent, reflects some decision as to how the firm is going to compete and win internationally.

An analysis of the market structure and the competitive environment should be a key focus in addition to standard metrics like the size and growth of the market. It is important to map the firm's distinctive advantages onto the market conditions, rather than assuming that the same business model can be replicated from one market to the next. In addition to firm-specific issues as outlined above, there are some broader issues that could strengthen the capacity of New Zealand civil construction firms around international expansion. In particular, improving the quality of business education amongst New Zealand civil construction firms with respect to international expansion especially in the target markets, is likely to make a substantial contribution to strengthening the capacity of the firms in dealing with the challenges of operating in such settings. Also finding ways to enhance knowledge sharing between New Zealand civil construction firms that are active in the target markets will ensure that best practice is spread rapidly throughout the construction sector, easing the process of entering and functioning in such markets. This, as discussed in sector 7.3.3, can be achieved through an industry capability network.

### *7.5 Chapter Summary*

Seeking to conduct operations in the target markets from the end of the world can be challenging. As discussed in this study, small scale, physical remoteness, lack of market knowledge and resources make international expansion difficult for New Zealand civil construction firms. However, simply because international expansion is challenging does not make it any less important to the long term growth of the construction sector and by extension New Zealand's economic future. Economic success, at government, industry and firm level, is about how key decision-makers respond to challenges and opportunities that exist internationally. New Zealand civil construction firms and the sector may need to work harder given the additional challenges around international expansion, but the lesson to learn here is that these challenges are not insurmountable. Every country faces its own set of advantages and disadvantages and tailors its public policy and business actions accordingly.

As discussed in this research New Zealand civil construction firms and the sector have not responded with sufficient force or intensity to these challenges. To benefit from the opportunities presented by the target markets the New Zealand firms and construction industry need to update their strategies and approaches to compete effectively in a changing world. New Zealand construction sector's meagre international performance could be attributed primarily to the consistent lack of a global economic strategy, both at industry and firm level, rather than to New Zealand's disadvantaged geographic position. This chapter proposed a range of actions which include making investments to help increase international market participation of the construction sector by establishing an industry consortium and developing new business models that encourage greater collaboration, both at the domestic and international levels. The chapter also offered ideas on improving the quality of business education amongst New Zealand civil construction firms especially around international expansion. The proposed measures if taken by the government and industry may have the potential to lead to significant improvements in the New Zealand civil construction sector's international performance through increased international participation.

## *Chapter 8 Conclusions and Future Research*

### *8.1 Overview of the Study*

As a small resource based economy international engagement plays a critical role in the growth and development of the New Zealand economy. Rapid growth in emerging markets, particularly those in Asia, has created enormous opportunities for New Zealand based construction and engineering firms with massive demand for new infrastructure in markets such as China, India, Indonesia and Vietnam. However, New Zealand civil construction firms have been slow in responding to these opportunities. Although there are a number of studies that examine the constraints that New Zealand firms face while considering international operations (Akoorie & Enderwick, 1992; Alon et. al, 2009; Chetty & Hamilton, 1996; Chetty & Campbell-Hunt, 2003; Deng et.al, 1995; Shaw & Darrock, 2004; Skilling & Boven 2005 (a)), the existing literature presents limited insights into facilitative policies that support the internationalisation of New Zealand civil construction firms. Hence the main goal of this study was to examine possible constraints that New Zealand civil construction firms are most likely to face when considering internationalisation to emerging economies.

The research objectives of this study proposed to investigate key resource and capability demands required for transport and energy infrastructure projects in the target markets and analyse the capabilities of New Zealand civil construction firms. In doing so, the study intended to explore the key constraints New Zealand civil construction firms are likely to face while considering operations in the target markets. The research also proposed to evaluate best practises towards these markets, particularly when considering collaborative approaches in infrastructure projects and suggest possible managerial and public policy implications for both academics and practioners. In order to address these objectives, the study used a multiple case study design that examined data from 21 interviews consisting of representatives from 15 New Zealand civil construction firms, two government agencies and one industry body. Both within-case and cross-case analyses were conducted using empirical data obtained from the 21 interviews. The within-case analysis was used to develop five major themes in the study. These themes were used to inform and organise the analysis of the two main objectives of this research which are: a) the role of firm specific advantages in the internationalisation of New Zealand civil construction firms and b) main perceptions of New Zealand civil construction firms, government and industry representatives in terms of the key constraints that affect the internationalisation of New Zealand civil construction firms into the target markets. This was followed with a cross-case analysis; the intention here was to compare the relevant empirical

findings that emerged from the individual case studies so that more contextually novel insights could be provided in answering the research objectives of this study (Eisenhardt, 1989).

The findings generated by within and cross-case analyses were deductively compared to five specific theories and other related literature on internationalisation of SMEs as appropriate. This comparison uncovered aspects that were identified by other studies that analysed the internationalisation of SMEs. The findings highlight that small firm size and inadequate resources have constrained the international expansion of New Zealand civil construction firms. Additionally, a domestic market that provides a stable pipeline of work has limited the need for the firms to consider opportunities beyond New Zealand. It is for this reason a number of respondents were found to have a strong domestic focus and perceived the risks of operating in target markets to be high. Those firms that were involved in target markets emphasised the benefits of host market networks and the need for significant resource commitment. This perspective highlights that the vision of the management plays an important role in the internationalisation of a firm. From these findings, the study finally proposed policy and strategy implications for the government, the civil construction sector and the firms. The suggestions made emphasised on the importance of achieving greater market access and having a long-term commitment towards the target markets given the prospects they offer.

## ***8.2 Main Conclusions***

The points discussed both in chapters 5 and 6 of this study offer a number of conclusions, which are discussed in this section. The findings of this study highlight that although most firms interviewed for this study are sceptical of opportunities in the target markets, a few of them have been proactive in recognising the opportunities offered by these markets. This indicates two things. Firstly this suggests that despite the distance and resource constraints some firms have succeeded (Oviatt & McDougall, 1994). This means that New Zealand civil construction firms have firm specific advantages and the ability to source work in the dynamic target markets. Secondly, it also indicates that New Zealand civil construction firms have capabilities (ownership advantages) that are well regarded by local firms and the government in the target markets. This point supports the OLI framework which argues firms considering international operations must have proprietary assets (either tangible or intangible) to succeed in an overseas market (Dunning, 1988; Enderwick, 1989).

However, in order to better realise international opportunities, it is important that measures are taken to improve business education around international expansion both at the industry and firm level in New Zealand. The small size and specialism of New Zealand civil construction firms suggests that they could, in consortia, offer a range of services including project feasibility, quality control, and architectural expertise such as master planning, design, project implementation management, areas where local businesses are weak. These are all areas where New Zealand has acknowledged competencies and the target markets have pressing needs. This suggests the potential value of local collaboration, where New Zealand civil construction firms with complementary competencies look at working together to access overseas projects. Consortia can act as a platform for New Zealand civil construction firms not only to collaborate to source international projects, but also help firms share key resources such as capital and labour. This aspect is supported by the RBV which argues that an organisation's portfolio or bundle of firm-specific resources enables a firm to generate economic rents (Amit & Schoemaker, 1993) and that these resources may also be the means through which a firm gains competitive advantage in a market (Barney, 2011). However the key challenge for New Zealand civil construction firms is recognition of such opportunities and the cultivation of suitable partners. The issue here is to balance resource commitment and risk against the need for effective control and appropriation of returns.

In addition to consortia, the establishment of an industry capability network may facilitate greater interaction between government and industry representatives. This has an important

implication. Apart from being a tool for helping New Zealand firms market their capabilities to an international clientele, the industry capability network may provide an avenue to share expertise and educate firms with limited international experience on developing effective strategies to overcome the challenges of doing business in emerging markets. The findings of this study suggest that lack of experiential knowledge is one of the main factors for not considering international prospects. The ability of a firm to adapt to the local government and industry requirements is expected to be highly correlated with that firm's international experience. The more firms have been exposed to foreign markets, and the greater is international experience, the greater the ability to adapt to new local markets (Johanson & Vahlne, 2009). As most New Zealand firms have little experience of operating overseas, the ability to understand and adapt to local industrial and institutional requirements in the local markets is limited (Petersen & Pedersen, 2002). Hence an industry capability network could help address this issue by providing an avenue for the firms, industry and government representatives to interact and share expertise. This knowledge base could assist firms in better devising appropriate internationalisation strategies.

Finally, while the study highlights the challenges of the target markets it is essential that these be balanced against the considerable opportunities that these markets bring. Amongst the issues outlined in this study market size, capricious government policy, widespread bureaucracy, and social and political risk mean that local knowledge is critical. Also one of the most common problems that most international construction firms face is shortage of skills. As discussed in this study, both international and New Zealand civil construction firms operating in the target markets suggest that finding the right skills and knowledge can be challenging. In order to bridge this gap many firms form a traditional approach by making significant investments in building on-shore capability. While this approach may be helpful, as discussed in this study, approximately half the respondent firms state that they may not have the necessary capital to be able to make the required investments, at least in the early stages of their operations to help develop the necessary capabilities.

As construction projects require high levels of technical expertise, a couple of respondent firms have experienced difficulty in accessing local people with the requisite skills in international markets. A measured approach to deal with this issue would be to identify and establish connections with either local firms or other stakeholders that can assist the firms in recruiting the right talent. The experiences of five New Zealand civil construction firms that have successful operations in the target markets suggest that local connections are vital in sourcing

the right skills. The examples discussed in this study also suggest that the competitive advantages held by New Zealand civil construction firms (technological, creativity and knowledge) are neatly complemented by those of local businesses (capital, labour, government connections, networks with key stakeholders and familiarity with the local business environment).

Further, lack of familiarity of such dynamic operating conditions is characteristic of most New Zealand firms and raises the value of local partners. For this reason, the study recommends that potential projects for New Zealand firms will likely result from partnerships/networking where the parties involved stand to gain from mutual collaboration (Mathews, 2002, 2006). Indeed, examples of Fraport and the Urban Cluster in Chapter 7 suggest that foreign firms have managed to source work through developing partnerships with local firms. Besides helping build a presence in the local market, such alliances have assisted the foreign firms in developing market knowledge and building deeper networks in markets such as India and China. Additionally, these alliances have also helped the firms attain requisite resources and build new partnerships to source future work in those markets.

Accordingly collaboration with local firms in the target markets can be an important factor to helping source projects in these markets. A combined effort amongst a group of firms under consortia arrangements could shield the firms from the risks encountered to some extent and allow them to efficiently share key resources and build the capabilities required to succeed in highly competitive markets. This could also assist the firms in developing a greater knowledge base and market presence. These points are supported by the LLL Model (Mathews, 2002) and International Entrepreneurship (Oviatt & McDougall, 1994) which state that the strategies based on networking and leveraging from those connections that are most likely to succeed in the interlinked global economy are precisely those likely to be pursued by SMEs which lack substantial prior resources. Given the above discussion it can be concluded that raising New Zealand's productivity in a substantial and sustained way will necessarily involve higher levels of international economic activity. No matter how efficient the New Zealand economy is the small size of the domestic market means that sustaining high rates of economic growth will require active participation in global markets. Indeed, a characteristic of a high-performance economy is that its firms are able to compete successfully in international markets against the world's best. This can be attained by achieving greater market participation through foreign direct investments with economies like China, India, Indonesia and Vietnam amongst others, which can be a way for New Zealand civil construction firms to exploit their competitive

advantage at a global level and gain access to a larger customer base for long term growth and enhanced economic performance.



### ***8.3 Contribution***

This study makes contributions to both theory and practice. First, the findings of this study contribute to the wider academic literature on internationalisation of SMEs by analysing the key constraints most likely faced by New Zealand civil construction firms when considering international operations. Second, the study contributes to practice by making suggestions for policies specific to the industry and the firms. It also proposes general government policies that may better assist the internationalisation of New Zealand civil construction firms.

#### ***8.3.1 Contribution to Theory***

This research makes a number of theoretical contributions. First, the thesis makes a contribution to the general body of knowledge on the internationalisation of SMEs. It seeks in particular to deepen the understanding of the distinctive nature of SME internationalisation by putting it in the context of firms in the New Zealand construction and engineering sector. In this way the study offers insights into the drivers of SME internationalisation especially in the civil construction sector, insights that complement the broader literature on internationalisation, grounded as much of it is in the experience of larger enterprises (Camino & Cazorla, 1998; Coviello & Martin, 1999; Holmlund & Kock, 1998; Kaufmann 1995; O'Farrell et. al, 1998).

By exploring the constraints faced by SMEs considering internationalisation, this study highlights the need for further empirical research on issues specific to firms in the New Zealand civil construction sector. The discussion also contributes to the wider literature by analysing issues that are specific to New Zealand based service firms. It suggests that firms in the New Zealand civil construction sector have the same characteristics as firms from other small, open economies (Gawith, 2002). These include distance from key markets (geographic and psychic) (Boven, 2011; Dunning, 1988; Johanson & Vahlne, 2009; Skilling & Boven, 2005 (a&b); Simmons, 2002; Vivienne & Jenny, 2004) lack of experiential knowledge (Johanson & Wiedersheim-Paul, 1975; Mathews, 2002, 2006, Oviatt & McDougall, 1994) and resource constraints (Barney, 2011).

In addition to presenting generic issues the discussion in this thesis also highlights concerns that are specific to New Zealand based civil construction firms. These include firm size, limited availability of capital and human resource, competitiveness, role of institutional factors (such as corruption, political and legal environment) importance of firm-specific advantages in a low-technology intensive sector (Quak, 1991) and lack of government support (Chetty, 1999;

Enderwick & Scott-Kennel, 2009; PriceWaterhouseCoopers, 2011). The points discussed in this study are a novel contribution to wider literature as previous academic work on the internationalisation of New Zealand firms presents limited insights on the constraints faced by New Zealand based civil construction firms.

Second, the discussion in this study when linked to both the nature of the construction sector and theoretical perspectives used in this study, offers a number of contributions to the wider literature that helps explain the necessary conditions for successful internationalisation. Amongst other factors that this study identifies, the following – firm size, resources, competitiveness and experiential knowledge – are perhaps the most important aspects that influence the international competitiveness of New Zealand civil construction firms. The first factor that governs the ability of a firm to internationalise is the size of the organisation. The relationship between firm size and its ability to internationalise remains one of the most widely analysed aspects in the academic literature. Literature on internationalisation of SMEs offers two distinct views on the relationship between the size of an organisation and its internationalisation. First, a number of studies state that SMEs are often at a resource disadvantage which may stop them from reaching advanced levels of internationalisation (Buckley, 1988; Dunning, 1980, 1988). However, this view is debated by other academics who suggest that SMEs have a greater propensity to internationalise as these firms recognise the benefits of internationalisation since they seek to achieve greater economies of scale and long term growth.

The findings of this research support both the academic perspectives stated above. As evident from the discussion in this study, a select group of respondent firms (33 percent) identified that small firm size and limited financial and human resources were the two main reasons for not considering international opportunities. However, the study also presents cases of firms that have been proactive in operating beyond New Zealand. These firms believed that internationalisation was critical for their long term growth and development. Considering the above discussion it can be suggested that the findings of this thesis contribute to the literature that argues that there is a mixed impact of size on a firm's ability to internationalise (Cavusgil, 1984; Reynolds, 1987; Romanelli, 1989).

The second factor that influences the ability of the firm to internationalise is its resources. The RBV states that firm-specific resources such as, capabilities, knowledge capital and human resource, amongst other factors, determine a firm's success (Barney, 2011). These resources

become imperative when the firm considers international operations (Amit & Schoemaker, 1993). This view is further supported by the literature on international construction which suggests that amongst other resources, a construction firm's ability to source appropriate human resources and capital plays a critical role in determining its success especially in an international context (Quak, 1991). As the construction sector is a project based industry, sourcing the right skills is a challenging and costly task (Chan & Tse, 2003; Loosemore et.al, 2003). Also, given the scale of investment required, international construction firms often find it difficult to raise capital without the assistance of local partners in a foreign market (Kirpalani et.al, 1987). The points discussed above hold to be true in the case of New Zealand civil construction firms.

The findings of this study indicate that sourcing staff with the right skills and knowledge was a major issue for a few New Zealand civil construction firms while considering international projects. Given their size, limited availability of capital stopped 33 percent of respondent firms from undertaking projects at a larger scale. Although the above discussion is true for many firms that consider internationalisation, Mathews (2002, 2006), Oviatt & McDougall (1994) and Zaheer (2005) argue that SMEs often internationalise without initial resources. These firms depend on linkages to leverage the necessary resources to successfully operate in an international setting. Indeed, the internationalisation strategies of 47 percent of the respondent firms support this view. Thus, it can be suggested that the findings of this study only partially support the RBV which assumes that, if a firm has limited resources it may restrict the firm from considering international operations. The evidence presented in this research also suggests that, limited resources may not necessarily restrict a firm's ability to internationalise. Rather, SMEs often depend on linkages to secure resources required to successfully operate in a foreign market.

A third factor that plays a critical role in determining the competitiveness of an organisation especially in an international context is its firm-specific advantages. One of the most established frameworks that analyses the internationalisation of a firm is the OLI framework. The framework advocates firms that consider international opportunities must possess firm-specific advantages. Such advantages allow the firm to successfully compete against domestic firms who enjoy a level of familiarity with the local market environment. Although this aspect is true for civil construction firms, as this study reports, firm-specific advantages in the case of civil construction firms are likely to differ from those normally associated with the manufacturing sector. As the study highlights, firms in the construction sector display both

tangible (capabilities) and intangible (reputation) assets. The discussion also suggests that the level of specialisation facilitates the diffusion and valuation of distinct corporate profiles (Cuervo & Pheng, 2010; Enderwick, 1989; Quak, 1991). Examples discussed in this study indicate that New Zealand civil construction firms have managed to achieve competitive advantage by offering tailored solutions for clients in the target markets. This expertise has also allowed the firms to build a reputation for themselves in the international market. The points discussed in this section highlight that the competitiveness of a firm amongst other factors is directed by the type and level of firm-specific advantages that a firm possesses particularly in an international setting. Accordingly, the findings of this thesis are in line with the OLI framework which states that ownership advantages determine the success of a firm in an international context (Dunning, 1977, 1980, 1981, 1988 (a, b &c); Dunning & Lundan, 2008; Narula & Dunning, 2000).

Finally, the fourth factor that regulates the success of a firm in an international setting is its experiential knowledge of operating in foreign markets. Amongst other variables, the Uppsala Model states that a firm's international experience is influenced by the psychic distance between the home and host country. The model further states that psychic distance is often correlated with the geographic distance between two markets. Also, it is assumed that the larger the geographic distance, the more distinct the differences in market factors (such as cultural, political and economic). Hence, geographic distance between two markets increases the liability of foreignness as foreign firms may not be familiar with the local business environment, cultural and institutional factors. This study validates the concepts proposed by the original Uppsala Model (Johanson & Vahlne, 1977). As evident from the findings, lack of experience and subsequently limited market and institutional knowledge was one of the main reasons that a number of respondent firms (26 percent) were sceptical of considering operations in the target markets. Also, the considerable geographic distance between New Zealand and the target markets meant that the firms would have to make substantial capital investments to build a presence in these markets. For this reason, approximately half the respondent firms chose to operate only in markets that are close to New Zealand (such as Australia and the Pacific Islands).

However, the study also presents the experiences of firms (27 percent of respondents) confirm the importance of business networks when undertaking international construction projects. The internationalisation strategies of these firms indicate that the success of an organisation is not

only reliant on its experiential knowledge but is also determined by its ability to create potential business linkages which could help the firm gather and understand information necessary to successfully operate in a given foreign market. In view of the above discussion, it can be stated that the findings of this study attest the business network view proposed both by the Uppsala Model and Mathews LLL theory which states that geographic and psychic distance may not always hinder a firm's internationalisation. Rather the success of firm in a foreign market is governed by its ability to build linkages and leverage those to gather information necessary to succeed in a given foreign market. This finding adds to the business network view offered by Mathews LLL Model (2002, 2006) and the revised Uppsala Model (Johanson & Vahlne, 2009) by putting it in context of the international civil construction firms.

The study makes a small but nevertheless an important contribution to the extant international business literature. As noted earlier, the findings of this study suggest that regardless of size, available resources and management attitude, a stable domestic market makes international opportunities less attractive. This finding adds to the literature that suggests that firm-specific advantages and management attitude often determine the internationalisation of a firm, however pays little attention to the importance of a domestic market and its impact of the ability of a firm to internationalise. The study also contributes to the literature on International Entrepreneurship, as the approach has been used to examine various industries (e.g. Prokesch, 1997; Zahra & Garvis, 2000), but is limited in its application to analysing firms in the construction industry. Finally, the study makes a contribution to both the conceptual and empirical literature that examines the internationalisation of service firms. One of the main contributions of this study is that it uses concepts from five different theories to examine the internationalisation of civil construction firms.

### *8.3.2 Contribution to Government Policy*

A small domestic market means that New Zealand firms need to sell their goods and services abroad. International activities enable New Zealand firms to access larger markets and also to benefit from greater economies of scale and specialism in areas where they have a competitive advantage. International activities also mean that New Zealand firms have access to resources and information that can help increase the productivity and growth of New Zealand firms and the wider economy. In order to achieve greater international participation, one of the top priorities of the current trade policy agenda is to open new markets for New Zealand through the WTO and FTAs. Accordingly, current trade policy aims to give New Zealand firms better access to overseas markets and ensure that they are able to defend their interests while operating in an international setting. Although the primary aim of the government is to reduce trade barriers and open doors for New Zealand firms, the focus is on exporting New Zealand primary commodities such as dairy and meat to markets of key interest. Despite the measures taken by the government to open new export markets for New Zealand, trade and export levels have seen little improvement over the last two decades. Current strategies have not positioned New Zealand firms well to participate in the economic growth that has occurred mainly in emerging markets over the last decade.

This raises some serious concerns about the government's commitment to increase New Zealand's economic engagement on an international scale. As evident from this research, the real challenge around market access is not simply getting goods and services into international markets free of tariffs or quotas, but increasingly it is to help firms establish operations in key markets. This means that trade negotiations are progressively becoming an insufficient mechanism to assist New Zealand firms overcome the challenges for going international from a small, remote economy.

As discussed in this study, New Zealand civil construction firms that currently operate in international markets emphasise on the importance of developing a strong international market presence. In order to ensure greater international participation from sectors such as construction and engineering, this study makes suggestions to improve current services offered by the government and related agencies to not only help New Zealand firms successfully enter international markets but more importantly to help these firms build their presence in these markets. Although, agencies like the NZTE do provide services to assist New Zealand firms this study suggests that these agencies have had limited success in assisting New Zealand firms create successful overseas market positions. In view of this, this study recommends that

agencies like NZTE not only continue providing firms with adequate services, but more importantly assist them in acquiring market and sector specific information.

The study also proposes that agencies like NZTE need to develop a deeper market presence by establishing local networks that link New Zealand firms to potential partner firms, clients and other key stakeholders. While, NZTE in particular does help New Zealand firms identify potential local partner firms in markets like India and China, the agency has limited influence on developing these connections further. Although developing such networks is the responsibility of the firm, as most New Zealand civil construction firms lack market knowledge, agencies like NZTE could better assist firms in gathering information and resources required to successfully operate in a foreign market. This study recommends that agencies like the NZTE could perhaps work alongside New Zealand firms to help them not only identify local partner firms but also assist them in building a local network in a foreign market. These connections can assist New Zealand civil construction firms in developing a better understanding of local market factors and help them overcome constraints around market knowledge.

In order to provide this type of assistance, both the government and related agencies need to be more strategic about organising their resources to better assist and represent New Zealand capability in international markets. There is also a need to make substantial capital investments in markets such as India, China, Indonesia and Vietnam, which offer an array of opportunities for New Zealand firms. As highlighted in the study, achieving such deep market presence would require a more deliberate effort on the government's part to focus on country engagement in which key economic relationships are identified and adequate resources (capital and people) are invested appropriately to better assist sectors such as construction and engineering, that have the potential of generating economic value for New Zealand at an international scale.

### *8.3.3 Contribution to Industry and Firm Strategy*

#### *8.3.3.1 Industry Strategy*

While there is little research on the New Zealand construction sector, the discussion in this study indicates that the firms and the industry as a whole operate in an environment of conflict rather than collaboration. Also, the structure of the industry is such that much of the knowledge on how to better co-ordinate resources to produce quality products and services is fragmented and not widely utilised. In view of these points, the study suggests that there is a greater need for the industry and the firms to work collaboratively. Given the challenges of undertaking large scale infrastructure developments, international firms considering infrastructure projects often find it useful to establish consortia in order to successfully source work in emerging markets. The examples discussed in this study (section 7.3.2) indicate that such arrangements not only make it easier for firms to secure large scale projects but also allow them to effectively share resources and expertise that may otherwise be lacking in a given firm. Accordingly, the study recommends that the firms together with the industry bodies should consider establishing a consortium.

The main aim of this consortium would be to assist New Zealand civil construction firms to work cooperatively to secure international projects in the target markets. A consortium places importance on developing effective linkages and leveraging from those to learn how to best operate in competitive markets, as discussed by Mathews (2006). In addition to a consortium, the study also proposes the establishment of a New Zealand construction industry capability network.

The sector currently lacks an overarching strategy or a domestic network that the firms can use to identify potential prospects beyond New Zealand. The proposed industry capability network in this study could help bridge the current gap that exists between firms, industry and the government. The establishment of such a domestic network could facilitate greater interactions amongst the firms, industry and the government. Also, as evident from the findings of this study, although New Zealand civil construction firms possess niche capabilities, they do not promote this expertise effectively to international markets. Recognising this aspect, the study suggests that the presence of an industry network could perhaps better assist firms and industry representatives in conducting seminars to market New Zealand construction capabilities to potential international clients.



#### *8.3.3.2 Firm Strategy*

International engagement is vital for New Zealand civil construction firms. However, as evident from the findings of this study, a number of New Zealand civil construction firms are sceptical of pursuing international opportunities. Lack of resources (mainly capital and labour) and experiential knowledge were some of the main constraints identified by the firms. Accordingly, this study offers three recommendations that could help the firms' better deal with the constraints they perceive. The study identifies that New Zealand civil construction firms do not necessarily see partnership or collaboration as a tool to secure work in an international context. However, given the magnitude of infrastructure projects undertaken in the target markets, interfirm collaboration is seen as a way to not only secure work, but also to gain access to resources and market knowledge. Indeed, the discussion in Chapter 6 (section 6.2.3) indicates that most foreign firms considering projects in markets such as India and China emphasise the importance of forming a strategic alliance with local firms in the target market. Accordingly, the first suggestion is that New Zealand civil construction firms consider collaborative arrangement as an entry mode.

It is instructive that firms that attain international success have a long-term commitment to internationalisation. As discussed earlier in the study (section 6.3.1) international operations are often time consuming and involve substantial costs and uncertainties. Conducting such activity demands expertise in the management of operating assets abroad as well as sustained commitment. Also, it is important that the firms have a clear focus on the long-term benefits of international expansion in order to overcome the initial scepticism around international operations. This is currently absent in the majority of New Zealand civil construction firms. The findings of this study suggest that most firms are quite content with their position in the domestic market. Also, the current availability of work in New Zealand has minimised the need for many firms in the sector to consider opportunities beyond New Zealand. However, it is apparent that the current boom experienced by the sector is likely to be followed by a downturn. Therefore, it becomes imperative that the firms look beyond immediate gains and concentrate on developing international markets that offer prospects for long term growth.

The strategy for establishing an international competitive position would first involve low-risk moves to test competitive advantage in overseas markets and then scale up operations once the firm is sure about maintaining its competitive position in that foreign market. As the discussion in Chapter 7 indicates, there may be some tensions between the imperatives to expand offshore in steps and with scale appropriate to that market. There are two ways of managing this issue.

First, is to understand that such a tension exists and identify competing priorities. Second, the firm should select markets that allow for incremental expansion. As New Zealand civil construction firms have limited international exposure and finances, it is important that the firms approach the target markets in a logical manner and develop an understanding of the local environment before planning significant investments. In light of the above discussion, the second suggestion that this study makes is for New Zealand civil construction firms make sustained investments identifying and building markets that can offer long term prospects.

Winning in international markets often requires strong intrinsic capability. Hence, it is important that New Zealand civil construction firms focus on developing and marketing niche capabilities that allow them to gain a competitive advantage in the target markets. Accordingly, the third suggestion that this study offers to improve existing corporate strategy, is to identify a differentiator that will help in determining the success of New Zealand civil construction firms in the target markets. In addition to identifying a differentiator, it is important that the firms make sustained investments in marketing their expertise to potential clients in the target markets. Finally, the study recommends improving the quality of business education amongst New Zealand civil construction firms especially around international expansion. This can be achieved by enhancing knowledge sharing between New Zealand civil construction firms who have current operations in the target markets. This may perhaps help ensure that firms in the New Zealand construction sector learn best market practices, easing the process of entering and operating in the target markets.

#### ***8.4 Limitations and Future Research***

This research has analysed the main constraints that New Zealand civil construction firms identify with when considering international operations. The study has considered cases of New Zealand civil construction firms that are sceptical of internationalisation and those that have current operations in the target markets. Although this study presents an in depth analysis of the New Zealand civil construction firms and their perceptions around international operations, this topic still offers scope for more empirical work in the area. The research has four main limitations. First, the study only presents data from 15 New Zealand civil construction firms. As discussed in Chapter 4 (Section 4.3) the number of participants were affected by two major events at the time the field work for this study was conducted. From a validity perspective, there were no clear differences in the observable characteristics of firms

which participated and those which did not participate. However, it would have been interesting to analyse the perceptions of the non-participating group that viewed they were not entrepreneurial enough to consider operations in the target markets.

The second limitation of this study is that it analyses civil construction firms only in the New Zealand context. As a start, a follow-up study comparing other civil construction firms that are based in economies similar to New Zealand could help better analyse the short-comings of New Zealand civil construction firms. Such a study could also help compare the constraints identified in New Zealand to other civil construction firms. Lessons learnt from such an analysis may aid in understanding both the similarities and differences between the New Zealand civil construction firms and firms in other countries and whether successful business strategies could be identified from such a cross-country comparison.

Third, the empirical findings of this thesis are not generalisable in a statistical sense. Instead, the multiple case study approach used in this research contributes to a theoretical conceptualisation and a deeper analysis of the main constraints that may stop New Zealand civil construction firms from considering international operations. As such, future research is needed to test the findings and propositions outlined in this thesis. Large-scale quantitative surveys could be used to produce statistically generalisable results from propositions based in this thesis.

Fourth, the research concentrates only on firms from the civil construction industry in New Zealand. Further research is needed to establish the relevance of the propositions made in this study and apply those to other service sectors in New Zealand and internationally. For future research the findings of this study can be extended to understand the internationalisation of other firms that provide services associated with infrastructure development such as design, project management, infrastructure management, construction equipment, and ICT firms, as these firms are likely to face similar issues such as networking, lack of market and institutional knowledge, availability of financial and human resources when considering operations in the target markets. Also, considering that market participation from a number of civil construction firms from the Europe and US has been limited in the target markets (Fernandez, 2013), the findings of this study can also be used to inform the internationalisation strategies of these firms. In addition to civil construction firms, the findings of this study can also applied to other traditional service firms (such as retail) that may face similar issues around resources, competition, institutional and market factors while considering operations in the target markets.

Finally, the findings of this study can be extended to evaluate the importance of firm specific capabilities in more dynamic technologically driven service firms (such as ICT).

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