Turun yliopisto
University of Turku

DYNAMIC CAPABILITIES IN THE INTERNATIONAL GROWTH OF SMALL AND MEDIUM-SIZED FIRMS

Arto Kuuluvainen

Turun kauppakorkeakoulu
Turku School of Economics

DYNAMIC CAPABILITIES IN THE INTERNATIONAL GROWTH OF SMALL AND MEDIUM-SIZED FIRMS

Arto Kuuluvainen

Sarja/Series A-4:2011

Turun kauppakorkeakoulu
Turku School of Economics

ISBN 978-952-249-174-9 (nid.) 978-952-249-175-6 (PDF)
ISSN 0357-4652 (nid.) 1459-4870 (PDF)
UDK 65.017
65.016
658.11 2.3
65.012.2
65.012.4

Uniprint, Turku 2011

ACKNOWLEDGEMENTS

Relief. That is the word that describes my feelings now that the moment of writing the acknowledgements for this study has finally come. Although the great majority of people I know may think me a very patient person, this process has indicated that this is not necessary true. At least, this is not true in the academic context. So, context matters - like it matters also when the role of dynamic capabilities in the international growth of SMEs is studied. My adventure on the highway of science has been full of challenges, even crashes. Well, I guess that a certain amount of desperation just belongs to this process. No pain, no gain.

Writing a thesis is often seen as a journey involving many people. Therefore, it is time to express my gratitude to those who helped to make this journey possible.

I would like to start with my supervisor, Professor Jarna Heinonen without whom this book certainly would not exist. My deepest gratitude goes also to Professor Anne Kovalainen and Professor Niina Nummela. Their advice and ideas have been invaluable during my research process.

I was honored to have Associate Professor Erik S. Rasmussen (University of Southern Denmark) and Professor Peter Gabrielsson (University of Vaasa) as the official examiners of my thesis. They gave me valuable and constructive comments on the manuscript and helped me to increase the quality of the thesis in a significant way.

My colleagues from Turku School of Economics have provided invaluable support in completing the thesis. Warm thanks are due to the numerous people with whom I have had the pleasure of working. I would particularly like to express my gratitude to Dr. Eriikka Paavilainen-Mäntymäki, Dr. Aki Koponen, Dr. Pekka Stenholm, Dr. Teemu Kautonen, Tommi Pukkinen and Arto Ryömä. From the perspective of my sanity, it was really important to rely on them when my research process faced major challenges. I would also like to thank Andrew Mulley and Auli Rahkala for contributing to the finalisation of the language and layout of the study.

I am grateful to the Finnish Foundation for Economic Education, the KAUTE foundation, Finnish Cultural Foundation, Yksityisyrittäjäin Säätiö, Turun kauppaopetussäätiö, the Helsinki School of Economics Small Business Centre’s Foundation and Turku School of Economics for their financial support. I am also indebted to the Finnish Funding Agency for Technology

and Innovation (TEKES), whose funding of the Yrityskasvun mekanismit (Mechanisms of company growth) research program provided me with the valuable opportunity to work as a full-time researcher for several years.

Naturally, there is life outside the research world and all my friends deserve my special thanks for keeping me sane. In particular I like to thank my good old friend, Jussi Rautjärvi as well as my teammates in the FBT Blue Flames floorball club.

Finally, I would like to express my warmest thanks to my parents Risto and Kaarina Kuuluvainen and my brother Timo Kuuluvainen for all the support and encouragement they have given me through my life. Last and certainly not least, I would like to thank Tiina, the love of my life. Tiina, I will be forever grateful for the support you have given me during these years. I dedicate this book to my growing family.

Turku, August 2011

Arto Kuuluvainen

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

1.1 Background of the study

A central concern of a firm's overall strategy and management is to maintain a dynamic fit between what the firm has to offer and what the environment dictates (Learned et al. 1965; Miles and Snow 1978). Achieving this fit requires that the firm is able to change its processes. Thus a firm has to possess dynamic capabilities, which, in addition to increasing the firm's opportunities to survive, often provide organisations with the potential for growth (Helfat et al. 2007). The essence of the dynamic-capabilities approach is that competitive success arises from the continuous development, alignment and reconfiguration of firm-specific assets (Teece and Pisano 1994; Teece et al. 1997; Augier and Teece 2006). In other words, dynamic capabilities directly affect the firm's resource base, which in turn is the source of the firm's competitive advantage (Ambrosini and Bowman 2009). However, dynamic capabilities do not appear out of nowhere; they are typically the outcome of experience and learning within the organisations.

The importance of dynamic capabilities has increased because the global economy has become more open and the sources of innovation and manufacturing are more diverse, geographically and organisationally (Teece 2000), and multiple innovations have to be combined to achieve marketplace success (Somaya and Teece 2007). However, while globalisation has expanded, it is not even close to "complete" (Augier and Teece 2007). Hence the international business environment is expected to remain very dynamic in the future. As a result, firms that can anticipate and react to the changes emerging in their environment have better opportunities to grow and to be profitable than do their slower rivals. Examples of these changes are new technological innovations, which can create totally new product markets.

This study has been conducted on Finnish manufacturing small and medium-sized enterprises (SMEs), and it is especially interested in the role of dynamic capabilities in SMEs' international growth. SMEs are considered central to the Finnish economy, since they amount for 99.8% of the firms registered in the company register of Statistics Finland, 62% of the employees employed by all Finnish companies and 51% of the annual revenue of all Finnish firms (Confederation of Finnish Industries EK, 2008). Studies focusing on SMEs have become increasingly popular in international business

studies in the last couple of decades. However, because each firm is unique, new findings seem to emerge more or less continuously (e.g. Hedlund and Kverneland 1984; Rao and Naidu 1992; Gankema et al. 1997; Gankema et al. 2000; Paavilainen-Mäntymäki 2009). These new findings, aside from broadening the research base, also arguably create room for new studies combining existing findings and approaches. Dynamic capabilities are an example of an approach that clearly still lacks empirical studies in the SME context.

The fact that SMEs can be international players is particularly evident when examining countries that have a fairly small domestic market, a long international trading history, technologically oriented products, active domestic competition, organised company financial support systems, firms with willingness and ability to expand internationally, and low barriers for transcending country borders. Such countries include Austria, Switzerland, Belgium, Portugal, New Zealand, Sweden, Norway and Finland (see e.g. Holmlund et al. 2007).

Usually, international growth is studied implicitly as a part of growth or internationalisation studies, and often internationalisation is seen as one type of firm growth (see e.g. Nummela et al. 2009). However, this study provides fresh insights by studying the phenomenon of international growth in SMEs through the dynamic capabilities approach.

In the empirical part of the study, the main emphasis is on four Finnish manufacturing SMEs whose international growth is studied through qualitative case study methods. For example, Helfat et al. (2007) note that case-based approaches and other methods used to study the strategy process will increase our understanding of dynamic capabilities as well. In practice, this study proceeds by first identifying critical events in each SME's international growth between 2004 and 2007. The most important events are then analysed, relying on certain organisational processes underpinning dynamic capabilities. In this study, these processes are opportunity search, resource acquisition and resource reconfiguration; the decision to study these three particular processes alone is explained in Chapter 2.4. Finally, the role of dynamic capabilities in the international growth of SMEs is concretised through examples found from the critical events in SMEs' international growth (i.e. from the cases). Hence our understanding of dynamic capabilities is increased.

The literature is divided about the links between dynamic capabilities and firm performance (e.g. Cepeda and Vera 2007). Some authors (e.g. Teece et al. 1997; Lee et al. 2002, 734; Griffith and Harvey 2006, 597) have explicitly linked dynamic capabilities and competitive advantage. However, others see the link between dynamic capabilities and a firm's performance as indirect (e.g. Bowman and Ambrosini 2003; Zott 2003, 98). On the other hand, some authors have decoupled the notion of dynamic capabilities and performance and argue that "dynamic capabilities do not necessarily lead to competitive

advantage" (Helfat et al. 2007, 140). These authors justify their view by stating that while dynamic capabilities change the resource base, this renewal is not necessarily valuable. In other words, it may not create any VRIN[1] resources (see e.g. Ambrosini et al. 2009). Thus it is how such capabilities are deployed and used within a context that determines their success (e.g. Easterby-Smith and Prieto 2008).

This logic can be grasped by looking at a practical example from business life. A firm's management may decide to change the internationalisation strategy it uses in Japanese markets from indirect exporting to maintaining a local sales office. However, for cultural reasons, Japanese clients often prefer operating with Japanese firms (such as local distributors or agents), and hence the firm's Japanese sales may decrease after the strategy modification. In addition, establishing a sales office is costly and requires considerable time and effort. This example illustrates that the effect of dynamic capabilities on performance can also be negative, although dynamic capabilities are commonly seen to increase a firm's performance.

In this study it is enough to note that each of the firms studied grew in international markets during the research period. The critical events in this development are first described and then analysed in as much detail as possible with the research data available. As a result, examples of the role of dynamic capabilities in the studied firms' international growth are provided. These dynamic capabilities presumably played a significant role in the international growth, but it should be noted that there are also many other factors (e.g. industrial and policy factors) that can affect the international growth of the firm. There is a growing agreement in the literature that certain characteristics of the general business environment (like uncertainty and complexity) moderate the relationship between dynamic capabilities and competitive advantage (Aragon-Correa and Sharma 2003; Benner and Tushman 2003). However, with the research data used in the study, these factors cannot be controlled, and hence the focus is on illustrating the relationship between dynamic capabilities and selected organisational processes. In the analysis phase of the study, the role of international growth is more contextual – in other words, ensuring that the firms studied have recently faced changes in their organisational processes (i.e. they have the required dynamic capabilities).

[1] To judge whether a given dynamic capability is a source of sustainable competitive advantage, Helfat et al. (2007) recommend utilising Barney's (1991) well-known VRIN (Valuable, Rare, Imperfectly Imitable, Non-Substitutable) framework.

1.2 Key concepts of the study

Describing a study's key concepts increases the comparability of the results (Buckley and Chapman 1996). In this study the concepts are revenue, small and medium-sized enterprises (SMEs), capabilities and resources, dynamic capabilities, processes and international growth. While dynamic capabilities can be seen as a firm's ability to change its resource base, it is essential first to understand what the base consists of. For this, the reader has to understand what is meant in this study by "capabilities" and "resources." The importance of defining key concepts of the study is highlighted by the fact that there are different views on the meaning of terms like capabilities and resources. Processes are the mechanisms that make dynamic capabilities happen (Helfat et al. 2007), whereas SMEs and international growth form the context of the study. In this chapter, the key concepts of the study are briefly introduced.

Revenue is a key concept of the study as it plays a major role in the case selection phase. This study adopts the definition of revenue used by Statistics Finland:

(Revenue) is deemed to comprise sales profits from the actual activity of a party with a legal obligation to keep books, after deduction of granted subsidies, value added tax and other taxes based directly on sales volume. In addition to the sales adjustment items, income transfer and passage through items are deducted from sales. These are items belonging to another party with a legal obligation to keep books, which only technically go through the books of this other party obliged to keep books. Paid sales freight, commissions and credit losses are not deducted from turnover. The items included in turnover vary by industry. Turnover does, however, always include profits from current assets. (Statistics Finland 2011)

Although Statistics Finland uses the term "turnover" instead of "revenue", this research will use the latter. The reason for the choice is that feedback received at international conferences, indicated that turnover could be understood to refer to changes in the number of personnel at a firm during a certain time period.

As already mentioned, international growth is an important growth strategy, particularly for *SMEs* whose business scope has been geographically confined (Barringer and Greening 1998). This study follows the European Union (2003) definition of SMEs as enterprises that employ fewer than 250 persons and that have annual revenue not exceeding 50 million euros and/or an annual balance-sheet total not exceeding 43 million euros. The focus on SMEs has both pragmatic and theoretical justifications. Telephone interviews (conducted in 2004 as a part of a larger research project) were conducted with SMEs.

Furthermore, SMEs appear to be under-researched in the field of dynamic capabilities.

However, while studying a phenomenon like international growth from the perspective of dynamic capabilities, the role of firm size does not necessarily need to be highlighted. As Augier and Teece (2009) suggest, both large and small firms have great trouble sustaining long-term superior performance (which usually requires that the firm possess dynamic capabilities), and even with large research-and-development (R&D) budgets, success through innovation is by no means automatic. The innovation process demands the active orchestration of both intangible and tangible assets by entrepreneurs and managers, in small and large firms alike.

Capabilities and *resources* are often seen as synonymous or closely related concepts (e.g. Amit and Schoemaker 1993; Day 1994). However, in this study, capabilities are considered to represent complex bundles of skills and accumulated knowledge that *enable firms to coordinate their activities and make use of their resources* (see e.g. Day 1994). When the term "resource base" is used in this study, it refers to a firm's tangible and intangible resources as well as its capabilities.

Capabilities and resources have certain characteristics. First, capabilities are firm-specific (Amit and Schoemaker 1993), hard to identify (Day 1994) and embedded so deeply into a firm's processes that they cannot be given monetary value and cannot easily be bought (Dierickx and Cool 1989; Teece et al. 1997, Makadok 2001). Second, resources' impact on firm performance does not occur by itself. Instead, a firm's capabilities will enhance the value of the firm's resources (Makadok 2001). According to Day (1994), capabilities blend the firm-level resources and enable their effective deployment. Thus capabilities are intermediate goods used to improve the productivity of the firm's resources (Amit and Schoemaker 1993). Makadok (2001) further developed this idea by arguing that capabilities differ from resources in that they enable firms to create economic rent by boosting the productivity of their resources. In other words, it is not enough for a firm to possess good resources; it must also be able to use these resources effectively. This in turn may require capabilities to build new kinds of combinations from the resources. To illustrate the essence of capabilities, Helfat et al. (2007, 11) give an example: the capability of auto assembly utilises assembly line workers, engineers and computer operators and their knowledge, as well as the procedures that they follow when assembling a car. Moreover, this capability requires physical assets (that is, tangible resources) such as an auto assembly plant to be useful.

Dynamic capabilities as a term refers to two key factors that have not gained much attention in previous strategic approaches. "Dynamic" refers to the capability to renew capabilities so that they would reach congruence with

the changing operational environment. Certain innovative actions are required when markets face changes (e.g. rapid technological or competition changes). "Capabilities" highlights the key role of strategic management in adaptation, integration and recreating an organisation's inner and outer skills, resources and competition factors, so that these would better fit the requirements of a changing operational environment (Sapienza et al. 2006; Ambrosini and Bowman 2009). Several authors (e.g. Winter 2003; Teece 2007) have stated that if a firm possesses capabilities but lacks dynamic capabilities, it has a chance to make a competitive return for a short period but cannot sustain supra-competitive returns for the long term except due to chance. As Teece (2007) suggests, "dynamically competitive enterprises don't just build defences to competition; they help shape competition and marketplace outcomes through entrepreneurship, innovation and semi-continuous asset orchestration and business reconfiguration".

When studying dynamic capabilities, the definition of "capability" given in the context of the resource-based view should not be applied, and the expression should not be divided into two words but seen as one. A dynamic capability is not a resource but a process that has an impact upon resources. While capabilities are about competing today, dynamic capabilities are more future-oriented (Ambrosini and Bowman 2009).

There are various definitions for dynamic capabilities (e.g. Teece et al. 1997; Eisenhardt and Martin 2000; Winter 2003; Helfat et al. 2007), but some elements of these definitions are approved by the vast majority of researchers (see chapter 2.3.1). The definition provided by Teece et al. (1997) – that dynamic capabilities are the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments – is usually considered to be the cornerstone for these definitions.

As already mentioned, the benefits from dynamic capabilities depend on the efficacy of the underlying organisational and managerial *processes* that are invoked (e.g. Helfat et al. 2007). Hence it is essential to understand the processes in order to understand the operation of dynamic capabilities. In fact, dynamic capabilities can be seen as processes themselves (e.g. Eisenhardt and Martin 2000), although literature often also suggests that dynamic capabilities are not processes as such but more something embedded in processes (e.g. Zott 2003). It is difficult to observe a dynamic capability that an organisation possesses unless it is put into use, and processes are the mechanisms that make it happen (Helfat et al. 2007). In other words, when we are observing dynamic capabilities in use, we are observing the underlying processes. Hence the empirical part of this study describes certain processes identified from the critical events in the international growth of SMEs. This, the study suggests, is the only reasonable way to study the role of dynamic capabilities in the

international growth of the firm. Organisational processes, which can be understood as "the sets of actions that repeat over time and allow managers to accomplish some business task" (Bingham et al. 2007, 27), are referred to in the study especially frequently. Process research brings a ready-made empirical base to the topic of dynamic capabilities that also sheds light on its nature. If we apply the methods and approaches of process research to the questions raised by dynamic capabilities, further progress in research on dynamic capabilities can be made (see e.g. Eisenhardt and Martin 2000).

There are also different views concerning the meaning of the term "process". According to Van de Ven (1992, 169) strategy research has used the term in three ways. These are: 1) process as a logic that explains a causal relationship, 2) process as a category of concepts referring to actions and 3) process as a sequence of events describing change over time. Pettigrew (1992, 7) states that of these three approaches, only the third explicitly and directly observes the process in action and therefore is able to describe and account for how some entity or issue develops and changes over time. This study aims to capture changes that have played a major role in the international growth of selected SMEs (and hence make it possible to study the role of dynamic capabilities in this development) by identifying and describing these critical events in as much detail as possible and then analysing them through a theoretical framework built to guide the study.

Despite different views concerning the content of the "process", there are also commonalities among the definitions. Most definitions see that process studies particularly address "how" questions, namely one or more aspects of "how strategies are formed, implemented and changed" (Chakravarthy and White 2002). Furthermore, strategy processes are concerned with mechanisms, and invariably these mechanisms involve administrative systems and organisational practices, not to mention the role of managerial behaviour in decisions and actions taken in the organisation. Because strategy process is about mechanisms, it is inherently dynamic (Helfat et al. 2007). This study's research objectives (see chapter 1.3) are fairly close to "how" questions; and this fact encourages the use of a process approach in the study. The views dynamic capabilities as consisting of processes such as opportunity search, resource acquisition and resource reconfiguration. A firm's performance in these processes is closely related to the capabilities that the firm possesses. For example, in the search for new business opportunities, managerial capabilities play a significant role (e.g. Helfat and Eisenhardt 2004).

The literature has often used the term "internationalisation" as amounting to the *international growth* of the firm. In other words, international growth has been implicit in the process of internationalisation. What, then, is the difference between growth and international growth? One possible answer is

that in international growth, processes, goods, services, or resources are transferred across national boundaries (Andersen 1993). In other words, it is possible to make the distinction between growth that firms gain from their home markets and growth gained from international markets. In this study international growth is understood as a change process in which firms expand the magnitude, scale, and/or breadth of their operations and develop their organisation while expanding their international operating scope (see Paavilainen-Mäntymäki 2009, 52).

1.3 The purpose and outline of the study

The purpose of the study is to describe how SMEs can achieve growth from international markets and to explore what roles dynamic capabilities can play in SMEs' international growth.

The aims of the research stem from the main research objective. They are the following:

1 To recognise critical events and to analyse which of these had a decisive impact on the studied SMEs' international growth. These events are empirically described.
2 To identify factors that enable the development of dynamic capabilities in the context of the international growth of SMEs.
3 To show examples of dynamic capabilities identified from critical events in the international growth of the SMEs studied.

The logic followed in this study is crystallised by Helfat et al. (2007, 2) who suggest that the transformation of an organisation through additions, deletions, or modifications to its resource base entails processes for achieving these changes. It is not enough that we know what organisations do – which markets they enter, which products they introduce, how fast they grow, which firms they acquire and so on – we must also know how they do it. Thus understanding also how events related to dynamic capabilities take place can help us create a more complete picture of dynamic capabilities (see e.g. Helfat et al. 2007). It is assumed that international growth brings more dynamics or turbulence to SMEs' business. Hence international growth as a context, can facilitate identifying examples of dynamic capabilities from the firms studied. However, although the recent trend, particularly in international entrepreneurship studies (see Chapter 2.1.2), has been to pay major attention to "born globals" or new international ventures (see e.g. McDougall et al. 1994; Oviatt and McDougall 1994; Lydiksen 2009, 23), this study focuses on SMEs that have managed to grow in international markets at a later point in their lifecycle. Hence, all SMEs that are studied more closely here were established at

least a decade ago, and instead of rapidly internationalising, the SMEs studied have followed incremental routes of internationalisation in their businesses. This choice may influence the study's results, since new firms presumably need different dynamic capabilities than well-established firms do (see e.g. Harreld et al. 2007). This can be illustrated by noting that success factors vary among firms with different sizes and ages. For example, the leadership in a born global venture may be very different than that in a fifty-year-old middle-sized firm, although both of these firms might have grown recently in international markets.

The empirical part of this study first describes, in as much detail as possible, the most essential events in the recent international growth of the studied firms. An example of this kind of event is a firm's first international acquisition, which has increased the firm's revenue and number of personnel significantly. Once the description is sufficiently accurate, the process is analysed by searching what reflections of the chosen processes can be identified from these critical events. By analysing the background and changes from identified processes, and by comparing findings through cross-case analysis, the study presents some examples of dynamic capabilities playing a role in the international growth of SMEs. As Ambrosini and Bowman (2009, 44) state, "for dynamic capabilities to be a useful construct it must be feasible to identify discrete processes inside the firm that can be unambiguously causally linked to resource creation".

This study is a multiple case study with four cases (i.e. the critical events in the chosen SMEs' international growth). The report begins with a discussion of the previous literature, continues with methodological considerations and empirical findings, and ends with contributions.

Chapter 1 introduces the background and key concepts of the study as well as discussing the purpose of the study. Finally, Chapter 1 introduces the outline of the study.

Chapter 2 begins with a brief positioning of the study by introducing some findings from the previous literature. Next, the chapter describes the Finnish context from the perspective of the international growth of SMEs. However, the chapter's main emphasis is on the concept of dynamic capabilities. First, the chapter introduces several definitions for the term and explains the classification of dynamic capabilities used in the study. Then the processes selected for study in this research (opportunity search, resource acquisition and resource reconfiguration) are discussed in more detail. Finally, a theoretical framework is constructed for studying dynamic capabilities and international growth.

In the methodology chapter (Chapter 3), the focus lies on the philosophical underpinnings of the study and on more operational issues, such as introducing

the advancement of research and case-selection processes, as well as introducing data-collection and data-analysis methods. In addition, the pilot study is briefly introduced and case descriptions are provided. The findings of the study are presented in detail in Chapter 4. Chapter 5 is devoted to a discussion and conclusions made on the basis of Chapter 4. In addition, chapter 5 also addresses the limitations of the study, and highlights further research opportunities.

2 THEORETICAL POINTS OF DEPARTURE

Integrating the complementary approaches provided by the fields of strategic management, entrepreneurship and international business is crucial in this study because no single theory would be able to provide an extensive understanding of the complex role of dynamic capabilities in international growth within small and medium enterprises (SMEs). For example, whereas international business studies have to a certain extent neglected to examine growth in small firms, it is a well researched area in the context of entrepreneurship (Nummela et al. 2009).

Multidisciplinary study can work as an engine of scientific knowledge development by combining several different studies and findings. This is particularly true in sciences such as business studies and behavioural sciences, where the origins of the fields belong in other sciences (Nelson and Winter 1982). The roots of dynamic capabilities are based in evolutionary economics (see Nelson and Winter 1982) whereas internationalisation studies, for example, often refer to behavioural theory in firms (see e.g. Cyert and March 1963). On the other hand, dynamic capabilities studies also often refer to behavioural theory in firms, and this underlines the need to study the phenomenon by combining several research traditions. In addition, empirical research on growth persistence often comes from economics literature (Helfat et al. 2007, 103). Hence, this study draws from several different, albeit overlapping, research traditions and the phenomenon studied is positioned to illustrate the growth, international entrepreneurship, and internationalisation of SMEs and also their dynamic capabilities.

The need for integration is also noted in previous studies on SME internationalisation. For example, Coviello and McAuley (1999) suggest that SME internationalisation is best understood through the integration of major theoretical frameworks because comparative approaches to the study of internationalisation are beneficial to the understanding of the overall concept. The positioning of this study is presented in Figure 1.[2]

[2] This study assumes that growth has been studied mainly by entrepreneurship researchers, internationalisation of SMEs mainly by international business researchers and dynamic capabilities by strategic management researchers. However, in practice this is not such a black-and-white issue and overlaps (e.g. international entrepreneurship) can be found easily.

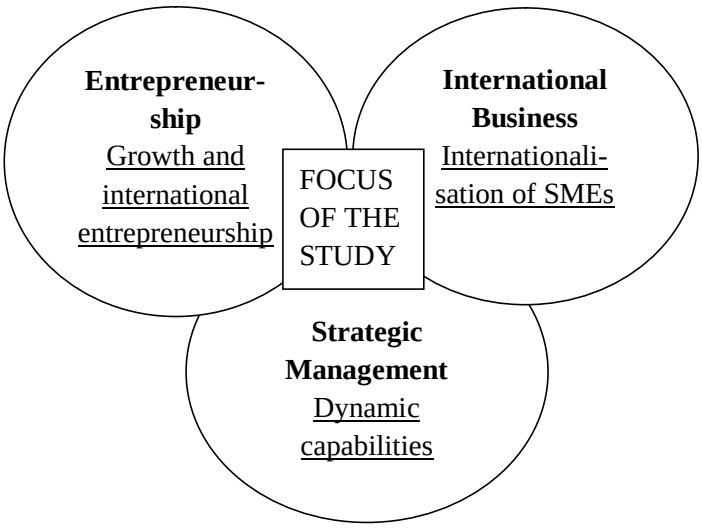

Figure 1 The positioning of the study

Growth, international entrepreneurship, the internationalisation of SMEs and dynamic capabilities all intersect with strategic decisions made by a firm's management. In addition, all these approaches can be studied through processes, and the process approach plays an essential role in this study. In the following sub-chapters, the theories utilised in this study are briefly introduced in the light of previous research. In addition, because dynamic capabilities are seen to be context-dependent (see e.g. Helfat et al. 2007), it is essential to also understand the characteristics related to international growth in Finnish SMEs. The context of the study is described in Chapter 2.2 and the dynamic capabilities approach and processes underpinning these capabilities are introduced in Chapters 2.3 and 2.4. Finally, the theoretical framework of the study is defined in Chapter 2.5

2.1 Previous research on the growth, internationalisation, international entrepreneurship and international growth of SMEs

There are several commonalities between studies published in the fields of growth, internationalisation, international entrepreneurship and international growth, although these studies have often come from different disciplines. This chapter introduces findings provided by earlier research concerning firm growth, internationalisation, international entrepreneurship and international growth, and the findings related to SMEs are highlighted.

2.1.1 Growth

Firm growth has been one of the most discussed topics in entrepreneurship research (Davidsson et al. 2002, 330–337). Previous studies have found several factors (e.g. the industry lifecycle and the firm's experience curve, see Helfat et al. 2007) which explain firm growth. The issue has been intensively studied and in 1998 Ardichvili et al. found that there were at least 105 studies focusing on growth in new and/or small firms. Among the most well known growth theories are models created by Greiner (1972) and Churchill & Lewis (1983). However, this study builds more upon the ideas of Edith Penrose (1959) who understood growth as an evolutionary process based on the cumulative growth of collective knowledge about the external business environment and on internal capital and human resources, for which production diversification, and the roles of administration, as well as mergers and acquisitions, are all relevant.

Several classifications of factors affecting firm growth have been presented. The general preconditions for growth have been suggested to be: *1. entrepreneur's growth orientation; 2. adequate firm resources for growth;* and *3. the existence of a market opportunity for growth* (e.g. Davidsson 1991). Storey (1994: 158) again suggests that there are three key factors influencing the growth rate of a small independent firm. These are:

1. The entrepreneurs' background and access to resources
2. The firm itself
3. The strategic decisions taken by the firm once it is trading.

Furthermore, Storey (ibid) states that the most important factors associated with an entrepreneur are motivation, education, number of owners and management experience. Furthermore, the growth of the smallest and youngest firms can be expected to be the most rapid and the location and industry sector also affect the growth. The most important strategic factors are again shared ownership, a capability to identify market opportunities and introduce new products, and a capability to build an efficient management team. Finally, Storey argues that these three components need to be combined appropriately for growth to be achieved.

On the other hand, Gibb and Davies (1990) state that there are four types of approaches to firm growth:

1. Personality-dominated approaches, exploring the influence of personality and capability on growth, including the entrepreneur's personal goals and strategic business aspirations (e.g. Chell & Haworth 1992)

2. Firm development approaches, seeking to characterise the growth pattern of the firm across stages of development and the influence of factors affecting the growth process (e.g. Scott & Bruce 1987)
3. Business management approaches, paying attention to the importance of business skills and the role of functional management, planning, control and formal strategic orientation in terms of shaping the growth and performance of the firm in the marketplace (e.g. Bamberger 1983)
4. Sectoral and broader market-led approaches focusing on the identification of growth constraints and opportunities relating to small firm growth in the context of regional development or the development of specific industrial sectors such as high-technology small firms (e.g. Smallbone et al. 1993).

Because dynamic capabilities are closely related to change, this study emphasises the relationship between organisational change and growth. When growth is understood as organisational change, it can be studied from the viewpoint of how it has developed over time (Van de Ven and Huber 1990). This study is interested in this view of firm growth and it is argued that the second and third classification approaches of Gibb and Davies (1990) most closely match this study's aims. In other words, the study studies how SMEs have achieved growth from international markets, and the role of organisational processes and dynamic capabilities in this development.

A common measure for studying a firm's growth is to observe the development of either the firm's number of personnel or its revenue. Revenue-based meters have been the most commonly used measure for firm growth (Helfat et al. 2007). However, there are numerous other growth indicators – for example, Brush and Vanderwerf (1992) found over 30 different indicators for performance and firm growth – which often makes comparison with earlier growth studies challenging. Moreover, an unambiguous definition for growth has been lacking (Liao 2004) and this has lead to contradictory results. However, it is essential to understand how the results of growth can be achieved (Heinonen 2005). Therefore, in order to increase understanding of the development of a firm's growth, it is necessary to study the processes that are a major influence on a firm's development. In addition, this study makes the distinction between a firm's growth achieved from its home market and its growth achieved from international markets (i.e. international growth).

2.1.2 Internationalisation of SMEs and international entrepreneurship

The internationalisation phenomenon has been studied for decades and a series of meanings and definitions have been developed. In general, internationalisa-

tion is the growth of a firm outside its national boundaries; in more detail, it is concerned with the growth and development of foreign markets (Zucchella and Scabini 2007, 28). Although there have been numerous definitions for internationalisation, this study follows the guidelines provided by Welch and Luostarinen (1988, 36) who suggest that internationalisation is *"the process of increasing involvement in international operations."* Internationalisation is therefore often seen as one type of firm growth; in other words, the growth process is tightly intertwined with the firm's other activities. This notion can be traced back to Ansoff's (1965) four primary strategies for growth, one of which is market development. The strategy suggests that firms can seek growth by entering new markets with their current products (see also Nummela et al. 2009).

In general terms, studies focusing on the internationalisation of SMEs can be divided into two research streams. The first, international entrepreneurship, is especially interested in firms which are international from their inception (i.e. born globals and international new ventures; see Oviatt and McDougall 1994 and McDougall et al. 1994). However, there is no commonly agreed and comprehensive theoretical framework for international entrepreneurship (Zucchella and Scabini 2007, 1) and some researchers have been pointing out the need to expand the boundaries of international entrepreneurship to also include more mature firms. For example, Zahra and Garvis (2000) suggest that the stream should also focus on firms of different ages and sizes that show entrepreneurial attitude as they venture into international markets. However, in their extensive literature review of international entrepreneurship studies published between 1994 and 2007, Keupp and Gassman (2009, 608) show that 149 of the 197 articles they reviewed were empirical and, with two exceptions, all of these empirical articles used samples of small and young firms. The authors also show that almost all previous studies restricted their analyses to one or more of the following:

1. The propensity of small and young firms to internationalise
2. What small new firms that have internationalised do in order to penetrate markets and/or to survive and how their international performance differs
3. The demographic and cognitive characteristics of individual entrepreneurs or groups of entrepreneurs and their actions in the course of internationalisation

This finding supports the argument that a great majority of international entrepreneurship research has emphasised the antecedents of the decision by new firms to internationalise (Zahra 2005).

The second stream also looks at the internationalisation of established yet small firms. The majority of the studies in this stream focus on various aspects

of SME export activities in terms of the antecedents and the process (behaviours and strategies) of exporting and export performance (for reviews, see Dichtl et al. 1984, Miesenbock 1988, Shoham 1998). This study could be placed in this stream because its particular focus is on studying how firms with longer histories have been able to achieve growth from international markets recently. On the other hand, international entrepreneurship literature (especially when the scope is expanded from new to more established firms) also provides several findings that are essential from the viewpoint of this study. For example, Zahra and George (2002) define international entrepreneurship as *"the process of creatively discovering and exploiting opportunities that lie outside a firm's domestic markets in the pursuit of competitive advantage."* Because these same opportunity search processes also underpin dynamic capabilities, rigid positioning of this study between these two research streams would be irrational. Instead, the findings from both streams are utilised in the study.

A process perspective to internationalisation assists the development of the study's framework since dynamic capabilities and growth approaches often acknowledge the role of process. Consequently, like firm growth, internationalisation can be understood as a change process by which firms expand their activities internationally, over the national borders of the firm's country of origin (e.g. Jones 1999; McDougall and Oviatt 2000; Ruzzier et al. 2006; see also Paavilainen-Mäntymäki 2009), and it is therefore justifiable to take a closer look at the development of process research in international business. One of the first significant studies in the field was Stopford and Wells' (1972) research on the organisational structures and processes of multinational corporations which describes an evolution in organisational forms (i.e. the International Structural Stages Model). Other classical internationalisation models, usually following incremental logic, were introduced, for example, by Vernon (1966), Johanson and Wiedersheim-Paul (1975), Bilkey and Tesar (1977), Wortzel and Wortzel (1981), Czinkota (1982), Moon and Lee (1990) and Rao and Naidu (1992). However, the role of the Uppsala model cannot be ignored in a review of the historical development of internationalisation studies. The model is based on the behavioural theory of the firm, found in the works of Aharoni (1966) and Johanson & Vahlne (1977), and it describes internationalisation as a process whereby firms gradually increase their international involvement and start their international operations[3] from countries where psychological distances are smaller. In the context of Finnish SMEs, this

[3] This study focuses only on the outward dimension of international operations (i.e. exports and foreign direct investment) and hence the inward dimension (i.e. imports) is, excluded from the study, in spite of being an element that could be seen as a part of the international operations of the firm. Because SMEs are scarce in resources, especially export operations play a dominant role in the international business of studied firms.

would mean that firms start their internationalisation by exporting goods to Nordic countries where business cultures are quite similar.

However, as the world has changed radically during the last couple of decades, this incremental logic has come under hard criticism. Today, firms internationalise their business faster and more individually than they did before and hence they can leap-frog the stages of earlier internationalisation models (see e.g. Turnbull 1987; Andersen 1993; Hashai and Almor 2004). Therefore, recent international business studies have increasingly been giving their attention to firms that internationalise their business rapidly after their establishment. These firms are referred to as international new ventures (McDougall et al. 1994) or born globals (Knight and Cavusgil 1996; Madsen and Servais 1997). The roots of this research stream can be traced back to the study published by McDougall in 1989 where the author compared domestic and international new firms, although according to Zahra and George (2002) the term 'international entrepreneurship' first appeared in an article published by Morrow (1988). However, numerous studies have influenced the early development of international entrepreneurship research. For example, studies on alliances and cooperative strategies (Steensma et al. 2000), SME internationalisation (Lu and Beamish 2001), entry modes (Zacharakis 1997), cognition (Mitchell et al. 2000), knowledge management (Kuemmerle 2002), and technological learning (Zahra et al. 2000) all played their own role in the development of the research stream. Indeed, international entrepreneurship researchers have different backgrounds (e.g. entrepreneurship, economics, marketing and sociology), which underlines the multidisciplinary nature of the research field. Although international entrepreneurship research is mostly known from studies focusing on new firm internationalisation, the stream has expanded its scope to also encompass established international mature firms, which advances the opportunities to compare and integrate the findings of dynamic capabilities and international entrepreneurship studies. A reflection of this expansion is, for example, McDougall and Oviatts' (2000, 903) suggestion that international entrepreneurship could be seen to be *"a combination of innovative, proactive, and risk-seeking behaviour that crosses or is compared across national borders and is intended to create value in business organisations."* Some years later, the same authors stated that *"international entrepreneurship is the discovery, enactments, evaluations, and exploitation of opportunities – across national borders – to create future goods and services"* (Oviatt and McDougall 2003).

Recently, Gabrielsson et al. (2008, 386) have presented a new classification of internationalising SMEs. Their research proposes that internationalising SMEs could be partitioned into the following classes:

1. Born Globals – SMEs with the potential for accelerated internationalisation and a global market vision.
2. Born Again Globals – SMEs that attempt to internationalise but achieve limited success, then turn to building up domestic support and later return to internationalisation by means of great leaps and a global vision (see e.g. Bell et al. 2001)
3. Inward internationalisers – those SMEs that import intermediates and components from global sources and/or import R&D and internationalise rather rapidly through exports and/or in other ways (see e.g. Korhonen et al. 1996).
4. The usual more slowly internationalising SMEs, a subset that includes small spin-offs from multinational enterprises.

There is a clear linkage between dynamic capabilities and international entrepreneurship studies because, for example, opportunity search processes are essential for both approaches. In addition, according to the process view of international entrepreneurship, dynamic factors (e.g. the process of organisational learning) are important constructs beyond the international growth of the firm and hence it is suggested that dynamic capabilities have an entrepreneurial nature (Zucchella and Scabini 2007). Therefore, it is not surprising that previous studies (e.g. Zucchella and Scabini 2007, 27) have found that dynamic capabilities and entrepreneurship approaches (e.g. Venkataraman 1997) share the common issue of resource mobilisation and combination as fundamental activities that have to be renewed over time in order to search for new opportunities and create a dynamic resource base that is difficult to imitate for competitors.

How is this study positioned among earlier studies in the field of internationalisation? As mentioned above, several different theories aim to explain the internationalisation process of firms. Among the most cited models are the Uppsala model (Johanson and Vahlne 1977), the eclectic paradigm (Dunning 1980), the industrial network approach (e.g. Håkansson 1982; Turnbull and Valla 1986; Håkansson and Johanson 1992), and innovation-related models (Bilkey and Tesar 1977; Cavusgil 1980; Czinkota 1982; Lim et al. 1991). However, in this study resource-based approaches to internationalisation (see e.g. Ahokangas 1998) are given particular attention, because dynamic capabilities clearly represent this class of models and theories. Peng (2001) reviewed the usage of resource-based approaches within international business research and noted that it is no wonder that many scholars in international business have turned to resource-based theories as the core questions asked within the resource-based view and international business studies have turned out to be similar. In Peng's view, the most essential contribution of international business studies to the resource-based view has been the identification

of international knowledge and experience as a valuable, unique and hard-to-imitate resource that differentiates firms in global competition. However, although past research has offered a few examples of resource-based or capabilities-based studies on small firm internationalisation (e.g. Rautkylä 1991; Hurry 1994; Roth 1995; Ahokangas 1998; Luo 2000) it can still be stated that the absence of SME research in resource-based internationalisation studies has been striking (Ruzzier et al. 2006). Consequently, it is argued that strategic management theories such as the resource-based view (e.g. Barney 1991; Amit and Schoemaker 1993), and in particular its dynamism-oriented streams (Nelson and Winter 1982; Teece et al. 1997; Eisenhardt and Martin 2000; Zollo and Winter 2002; Schreyögg and Kliesch-Eberl 2007), represent a promising theoretical framework to study international growth in SMEs (see also Ahokangas et al. 2010).

2.1.3 International growth

Generally, the literature on the internationalisation of SMEs has not paid much attention to growth and vice versa. In this study, the relationship between growth and international growth is already briefly referred to in chapter 1.2. For example, in most studies on internationalisation, the concept of growth is mainly implicit, as if built into the phenomenon (Jones 1999). One of the main reasons for this is related to the difficulties in obtaining detailed information on SMEs' foreign investments and firm performance because archival data about many SMEs are simply not publicly available (Lu and Beamish 2001). This seems to also be the case in Finland where SMEs do not always declare the share of international operations from their revenue even in their financial statements. Another factor that makes the study of international growth challenging is the unclear relationship between a firm's internationalisation and its growth. It can be stated that firm growth is a precondition for its internationalisation. On the other hand, it can also be suggested that growth is a result of internationalisation. Consequently, the concepts of growth and internationalisation can be intertwined (e.g. Buckley and Ghauri 1993) and this study suggests that geographic expansion is one of the most important paths for firm growth. It is a particularly important growth strategy for SMEs whose business scope has been geographically confined (Barringer and Greening 1998). Sooner or later, in the pursuit of growth, SMEs will adopt a geographic expansion strategy to pursue new opportunities to leverage core competences across a broader range of markets (Zahra et al. 2000). By broadening customer bases through entering into new markets, firms are able to achieve a larger volume of production, and are therefore able to grow (Lu and Beamish 2001).

A theory, model or approach for international growth is still lacking in the existing literature. However, several relatively established definitions of international growth do exist. One of the earliest is by Penrose (1959), according to which international growth is the expansion of firms outside their national boundaries. This definition implies that growth and internationalisation are simultaneous rather than sequential processes. Kuemmerle (2005) presents very apt reasoning for why internationalisation and growth should be combined. According to him, SMEs need to acknowledge the requirements of the business environment and the firm's internal strategy, structure, and resources set at the birth of the firm. The recognition that the SME operates at a nexus of external environment and internal capabilities is an essential part of the international growth process (e.g. Penrose 1959; Johanson and Wiedersheim-Paul 1975; Tiessen and Merrilees 1999; Cantwell 2000/2001; Fletcher 2001; Jones and Coviello 2005; Meyer and Gelbuda 2006) and therefore the dynamic capabilities approach, following similar logic, is well suited to studying SMEs' international growth.

At the operational level, this study understands international growth to be an increase in a firm's share of revenue received from international markets (see Chapter 3.4). A rather similar measure is also used in many other studies focused on internationalisation or growth processes (e.g. Brush and Vanderwerf 1992; Delmar 1997, Gabrielsson et al. 2006). For example Gabrielsson et al. (2006, 652) consider a firm to be international when more than half of its total sales are made outside its home country. Moreover, authors suggest that a firm is global when over half of its total sales are made outside its home continent. Relying on a single item index makes comparison with other studies easier and, according Gabrielsson et al. (ibid), simple measures can be seen as a strength when used in selection of the case firms and not for purposes of case comparison or performance measurement. This study additionally chose to use international growth measure (see Chapter 3.4) for case selection purposes.

However, since international growth as a distinct concept is very understudied to date, there is no commonly approved measurement scale for the phenomenon and, although the definition of international growth used in this study may be quite simple, it combines internationalisation and growth. It is acknowledged that there are several other ways to measure international growth in SMEs and one alternative, but complementary, way is introduced in the study of Paavilainen and Kuuluvainen (2008a) where the authors emphasise management's international growth orientation.

According to previous literature, there are several entrepreneur-specific factors which can help a small firm to grow internationally. For example, it has been stated that previous work experience, a high level of education and

knowledge of foreign languages are related to a strong international orientation in terms of export intensity, and that the identification of an international market opportunity cannot be independent of the role and experience of the firm's decision-makers. A justification for this is that, for example, niche firms, although being small-sized, show very high export intensity ratios by relying on social and business network relationships (Elfring and Hulsink 2003; see also Zucchella et al. 2007, 270). In other words, without previous working experience, the manager often lacks these kinds of contacts. Supporting results are also recorded by Gabrielsson et al. (2008) who define three development phases of born globals. These are *1. Introduction, 2. Growth and resource accumulation* and *3. Break out*. Gabrielsson et al. (ibid) see that the founder and his/her global vision at inception are the key factors behind the development of born globals. Moreover, factors like innovations, finance, product strategies, channels/networks, operation and market strategies and organisational learning have a direct influence on the progress of born globals.

To summarise this chapter, it is argued that there is a lack of research into the concept of international growth. In general, when international growth has been studied, it is often either from the perspective of internationalisation or growth and explicit integration of these concepts has been unusual. Some studies have combined internationalisation and growth (e.g. Gankema et al. 1997; Gankema et al. 2000; Knight 2000; Wiklund et al. 2009; Paavilainen-Mäntymäki 2009) but it is rare for the phenomenon to be studied in the context of SMEs and, in particular, from the perspective of dynamic capabilities.

2.2 International growth in Finnish SMEs

This chapter discusses growth and internationalisation in Finnish SMEs. Exporting plays an important role in this study, as it is the most common internationalisation strategy among Finnish firms, providing fast access to international markets and not requiring large capital investments. This is highlighted when studying SMEs that are generally scarce in resources (e.g. Ahokangas 1998). Previous research suggests that exporting offers an opportunity to gain valuable experience concerning operating in international markets (Sullivan and Bauerschmidt 1990; Root 1994; Erminio and Rugman 1996; Zahra et al. 1997) and it is assumed that this kind of experience plays a major role while SMEs are developing their dynamic capabilities. Some decades ago, it was argued that the lack of this kind of experience is one of the reasons behind Finnish firms' weak performance on the international market (Luostarinen and Welch 1990). However, internationalisation modes are not

limited to exporting only and, when the processes behind the international growth of the studied SMEs are empirically investigated, other modes need to be noted.

Familiarising the reader with the context of this study is essential because previous studies have often highlighted the path and context dependency of dynamic capabilities (e.g. Ambrosini and Bowman 2009, 40). For example, in their study on dynamic capabilities in the international biotechnology industry, Madhoc and Osegowitsch (2000, 326) show empirically that path dependency is an important phenomenon. Their study reveals that the country of origin is a factor that shapes firms' histories and paths and, as a result, has an impact on the dynamic capabilities they apply. They explain that the country of origin shapes firms' experiences and, as a consequence, the knowledge and capabilities they acquire. This is illustrated by the emergence of the US biotech industry which can be explained by strong links between universities and industries, entrepreneurship, availability of risk capital and governmental support – contextual factors that were not available to the same extent in other countries. Consequently, firms based in different countries reflect differences in the environments within which they were created and grew. These differences produce heterogeneous bundles of geographically distant resources across countries, which are embedded within firms operating in those countries (Helfat et al. 2007, 87). In the Finnish context, this can be illustrated by observing the influence of Nokia's success story on the Finnish economy. Finnish universities invest in education for high-tech industries and aim to ensure that there are enough high quality personnel available for Nokia and other Finnish high-tech firms. In addition, Nokia's growth has also provided growth opportunities for many other Finnish firms who operate as subcontractors for the mobile phone producer. It could also be stated that Nokia's example has encouraged other Finnish manufacturers to seek growth from international markets more actively than they might have done if such a role model were not available.

This study is conducted in the context of Finnish SMEs and therefore observes the general international growth behaviour of Finnish firms at the time of the research period. Although several studies address the number of Finnish SMEs operating internationally[4], not many studies focus on how important international market operations really are to Finnish SMEs in terms of growth or survival.

According to the annual SME barometer (2007), approximately 25% of Finnish SMEs exported products or services to international markets. At the time, 42% of Finnish SMEs expected their exports to increase during the year 2007. On the other hand, 53% expected their exports to remain at the same

[4] For example the FIBO studies at the Helsinki School of Economics, Finland.

level, and 5% expected their exports to decrease. In general, Finnish SMEs were interested in the Russian markets or the older European Union countries' markets. When Finnish industries were observed, the highest export rate was in the manufacturing industry (i.e. heavy and light industry), whereas the lowest rate was in construction. It is noteworthy that Finnish service firms have not been very international and that there are several characteristics that make it more challenging for them to operate in international markets than it is for manufacturers. For example, services have characteristics of intangibility, inseparability, variability, and perishability (Kotler and Armstrong 1994); importance of customer contact based on communication time, intimacy and information richness (Kellogg and Chase 1995); and critical factors of labour intensity, degree of customisation, and degree of interaction (Haywood-Farmer 1988). In general, the Finnish research tradition concerning the internationalisation of service firms is relatively young. Examples of previous studies in this field include Hellman's study (1996) of the internationalisation of the Finnish financial service sector, Orava's study (2005) of the internationalisation of knowledge-intensive service firms, and Turunen's research (2009) focusing on the internationalisation of Finnish tourism SMEs. In addition, Christian Grönroos studied the internationalisation strategies of Finnish service firms (see Grönroos 1999).

The results of the research conducted in the year 2006 by the Finnish Ministry of Trade and Industry (Table 1) were parallel to the 2007 SME barometer. Altogether, 20% of the researched Finnish SMEs (n=4000) operated internationally (i.e. exported) during the year 2005, but only 5% of these firms declared that their primary markets were abroad.

Table 1 Finnish exporting SMEs (Ministry of Trade and Industry 2006)

Size of the enterprise (number of employees)	*Share of exporting firms from the sample (%)*	*Exports share from the total annual revenue (%)*
1–9	17	29
10–49	30	33
50–249	54	30
Total	20	30

In the recent study of Kuuluvainen and Paavilainen (2009), conducted with the same data utilised in the pilot study of this research, the distinction between growth and international growth was addressed by placing the studied SMEs (n=238) into four categories based on the behaviour of their revenues

and international operations during the research period (2003–2006). Figure 2 shows that 13% of SMEs increased their share of international operations when compared to total revenue although their revenue did not grow during the period, and 28% of SMEs succeeded in increasing both their total revenue and the share of international operations from that revenue. However, as Figure 2 illustrates, the majority of SMEs did not experience growth in international markets. This is explained by the fact that the great majority of Finnish SMEs still operate solely in domestic markets and are not considering internationalising their operations in the near future (e.g. Paavilainen and Kuuluvainen 2008a and b; Kuuluvainen and Paavilainen 2009).

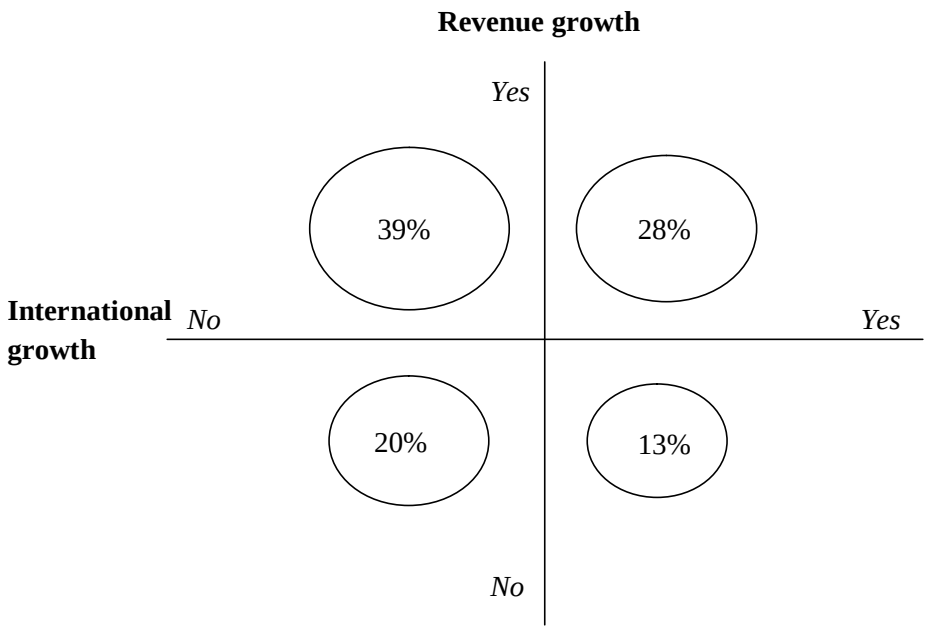

Figure 2 International growth[5] vs. revenue growth[6] in SMEs (Kuuluvainen and Paavilainen 2009, 68)

Another study conducted by Paavilainen and Kuuluvainen (2008b), indicates that although 43.3% of the studied SMEs reported having international operations in 2006, a closer look reveals that as many as 43% of these received a maximum of 10% of their total revenue from foreign operations. Consequently, despite some international activities, the great majority of the

5 International growth = The share of international operations from the firm's revenue increased between the financial periods of 2003 and 2006.

6 Revenue growth = The firm's revenue increased between the financial periods of 2003 and 2006.

studied SMEs still received their revenues mainly from the domestic market. It can therefore be concluded that Finnish SMEs are still heavily dependent on the home market. These findings can be partially explained by the time context of the study. During the data collection period the Finnish economy was booming and there were enough market opportunities in the home market (Paavilainen and Kuuluvainen 2008a and b). However, the findings are quite similar in the earlier study conducted by Kjellman and Eriksson (2001) who researched Finnish firms located in the Western Nyland region. They found that 60% of firms lacked export revenues and 50% of the managing directors had not considered internationalisation as an option for their firms.

2.3 Dynamic capabilities

Whereas the previous chapter introduced the positioning and context of the study in the light of previous literature, this chapter takes a closer look at the background and essential elements of the dynamic capabilities approach.

Ambrosini and Bowman (2009, 38) found that four different outcomes may result from the deployment of dynamic capabilities. First, they can lead to sustainable competitive advantage if the resulting resource base is not imitated for a long time and the rents are sustained. Second, they can lead to temporary advantage which is typical for markets with high turbulence. Third, they can give competitive parity if their effect on the resource base allows the firm to only operate in the industry rather than to outperform rival firms. Finally, the deployment of dynamic capabilities may lead to failure if the resulting resource base is irrelevant to the market.

However, this study does not aim to study the relationship between dynamic capabilities and firm performance; instead, the main emphasis is on the relationship between dynamic capabilities and the processes underlying them. The main reason for this choice is that limitations related to the research data make it impossible to accurately identify which part of a firm's international growth is a consequence of the firm's dynamic capabilities and which part is the result of other factors (e.g. industry, national economy etc.). In spite of this, SMEs experiencing international growth are a suitable target group for studying dynamic capabilities because international growth development demonstrates that these SMEs have faced recent changes in their business operations.

At the end of this chapter, the processes underpinning dynamic capabilities are introduced. This (together with empirical analysis of these processes) is important because previous studies have demanded further research concerning the functioning of the processes underlying dynamic capabilities

(e.g. Zahra et al. 2006; Ambrosini and Bowman 2009). First, however, some enablers of dynamic capabilities are briefly reviewed. This is justified because the previous literature on dynamic capability development and deployment reflects the particular relevance of the triggers of dynamic capabilities and, therefore, studying these enablers can help to advance the conceptual understanding of the underlying processes and dynamic capabilities (Ridder et al. forthcoming).

2.3.1 An overview of the origin of the dynamic capability perspective

The dynamic capabilities perspective often aims to understand a firm's growth and survival and it is therefore not surprising that it draws from a range of theoretical perspectives. Fundamentally, the research on dynamic capabilities concerns how organisations emerge, develop, grow, change, decline and rejuvenate over time (Helfat et al. 2007, 37). It is suggested (e.g. by Ambrosini and Bowman 2009) that the approach builds upon the theoretical foundations provided by Schumpeter (1934), Williamsson (1975, 1985), Cyert and March (1963), Nelson and Winter (1982), Teece (1982), Rumelt (1984) and Teece and Pisano (1994). Moreover, certain elements of Penrose (1959) are consistent with the approach because the aim of explaining the foundation of long-term profitability is close to the theory of the growth of the enterprise. In addition, Penrose emphasises that value creation does not come from the possession of resources but from their use, and how much value is created depends on how these resources are combined within the firm. She also argues that a firm's growth demands the continuous development of expertise and innovativeness and that managers need to have entrepreneurial skills rather than managerial skills. These ideas are also relevant to the dynamic capability perspective (Lockett 2005; Augier and Teece 2007).

The resource-based view cannot be ignored while the dynamic capabilities approach is reviewed. The resource-based view argues that resources that are simultaneously valuable, rare, imperfectly imitable and imperfectly substitutable (VRIN) are a source of competitive advantage (Barney 1991). The underlying assumptions of the resource-based view are that resources are heterogeneously distributed across firms and that this heterogeneity can be sustained over time. This explains how some firms are able to earn superprofits in equilibrium and, as such, it is essentially a static view (e.g. Barney 2001a and b). It is argued that dynamic capabilities are an extension of the resource-based view while they govern the rate of change of a firm's resources and, notably, its VRIN resources. These resources – that is, the firm's resource

base – then enable a firm to achieve sustained competitive advantage (e.g. Ambrosini and Bowman 2009).

There are various slightly different views concerning the essence of dynamic capabilities. Easterby-Smith et al. (2009) explain this by stating that scholars who have provided definitions for dynamic capabilities have come from different research traditions and have therefore viewed the phenomenon with different lenses, reflecting their different backgrounds.

Indeed, the literature review indicates that some scholars emphasise the patterned and routine aspects of dynamic capabilities, whereas others focus on the entrepreneurial facets of management. However, these two approaches could be considered complementary rather than substitutive. Table 2 shows, in chronological order, some of the key definitions of dynamic capabilities emerging from previous literature. There have been slight differences between researchers when defining the term ‘dynamic capabilities’. For example, Madsen (2010) makes a distinction between different definitions by dividing them in to three groups: definitions focusing on the results of dynamic capabilities (e.g. Griffith and Harvey 2001), definitions focusing on the presence of external conditions (e.g. Teece et al. 1997; Eisenhardt and Martin 2000) and definitions focusing on abilities or activities which make the firm dynamic (e.g. Zollo and Winter 2002, Zahra et al. 2006).

Table 2 Key definitions of dynamic capabilities emerging from previous literature

Author	*Definition*
Helfat (1997)	The subset of the competences/capabilities which allow the firm to create new products and processes and respond to changing market circumstances.
Teece et al. (1997)	The firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments.
Eisenhardt and Martin (2000)	The firm's processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match or even create market change. Dynamic capabilities are therefore the organisational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve and die.
Griffith and Harvey (2001)	A global dynamic capability is the creation of difficult-to-imitate combinations of resources, including effective coordination of inter-organisational relationships, on a global basis that can provide a firm with a competitive advantage.
Lee et al. (2002)	A newer source of competitive advantage in conceptualising how firms are able to cope with environmental changes.
Rindova and Taylor (2002)	Dynamic capabilities evolve at two levels: a microevolution through "upgrading the management capabilities of the firm" and a macroevolution associated with "reconfiguring market competencies".
Zahra and George (2002)	Dynamic capabilities are essentially change-oriented capabilities that help firms redeploy and reconfigure their resource base to meet evolving customer demands and competitor strategies.
Zollo and Winter (2002)	A dynamic capability is a learned and stable pattern of collective activity through which the organisation systemically generates and modifies its operating routines in pursuit of improved effectiveness.
Winter (2003)	Those that operate to extend, modify or create ordinary (substantive) capabilities.
Macpherson et al. (2004)	Dynamic capabilities refer to the ability of managers to create innovative responses to a changing business environment.
Sapienza et al. (2006)	Capabilities are configurations of routines and resources that allow an organisation to achieve its goals (Nelson & Winter 1982), whereas dynamic capabilities reflect a firm's ability to reconfigure its capabilities to adapt to its environment.
Alsos et al. (2007)	On the basis of their literature review Alsos et al. argued that there are four generic dimensions of dynamic capabilities. These are: 1) external observation and evaluation, 2) external resource acquisition, 3) internal resource reconfiguration and 4) internal resource renewal.
Helfat et al. (2007)	A dynamic capability is the capacity of an organisation to purposefully create, extend, or modify its resource base.
Cillo et al. (2007)	Dynamic capabilities are processes based on knowledge – they especially regard knowledge creation, knowledge integration and knowledge reconfiguration.
Wang and Ahmed (2007)	A firm's behavioural orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities and, most importantly, upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage.
Augier and Teece (2009)	The ability to sense and then seize new opportunities, and to reconfigure and protect knowledge assets, competencies, and complementary assets with the aim of achieving a sustained competitive advantage.

The great majority of researchers see dynamic capabilities as processes related to a firm's ability to reconfigure its resource base so that the firm can respond better to changes that occur in its operational environment (see Table 2). In addition, it has been stated that a dynamic capability is not an ad hoc problem-solving event or a spontaneous reaction (e.g. Winter 2003; Helfat et al. 2007; Schreyögg and Kliesch-Eberl 2007). In other words, authors underline that dynamic capabilities are concerned with the intentional change of the resource base (Ambrosini and Bowman 2009, 33).

Although the dynamic capabilities construct has been criticised for being vague and elusive (Kraaz and Zajac 2001), mysterious and confusing (Winter 2003), abstract and intractable (Danneels 2008) and obscure and tautological (Williamsson 1999), there have been several recent responses to the criticism, including, for example, new definitions of the concept. In particular, the new definition by Helfat et al. (2007) – *"a dynamic capability is the capacity of an organization to purposefully create, extend, or modify its resource base"* – has been gaining support. This definition can also be considered suitable for guiding the understanding of the dynamic capabilities concept in this study. According to Easterby-Smith et al. (2009) this definition is precise enough to be meaningful, yet broad enough to allow scholars to learn more about the nature and origins of dynamic capabilities through research. It makes some a priori assumptions and accommodates the view of both Teece et al. (1997), that dynamic capabilities enable a firm to respond to environmental change, as well as the broader notion of Eisenhardt and Martin (2000), that dynamic capabilities can also be the source of disruptive change. The definition by Helfat et al. (2007) leaves open the possibility that dynamic capabilities may address or bring about organisational changes unrelated to environmental change. The definition also specifies that the action of dynamic capabilities is, primarily, upon the firm's resource base, including both tangible and intangible assets and capabilities. In addition, the definition highlights the role of intentionality (i.e. "*purposefully*…") when dynamic capabilities are studied. This is important because this study's understanding of dynamic capabilities is that they describe intentional efforts to change the firm's resource base (see e.g. Ambrosini and Bowman 2009, 33). Although strategic change in SMEs is studied, it should also be noted that intentional change is just one type of change in the resource base. In other words, strategic changes in a firm's resource base may also occur through emergent processes that have not been intentionally deployed by the firm's managers (Mintzberg and McHugh 1985), or they could result because of luck (Barney 1991) or ad hoc interventions (Winter 2003). Therefore, dynamic capabilities are not a direct synonym for a firm's strategic change.

Probably the most discussed difference between the fundamental views of Teece et al. (1997) and Eisenhardt and Martin (2000) is related to the relationship between dynamic capabilities and the pace of change in a firm's business environment. According to Teece et al. (1997) dynamic capabilities occur only in rapidly changing environments whereas Eisenhardt and Martin (2000) explain that dynamic capabilities are at play in both stable and dynamic environments. The latter view is supported, for example, by Ambrosini et al. (2009) who suggest that in stable environments dynamic capabilities are often small adaptations of resources, whereas in high-velocity environments more radical modifications and changes in the resource base are needed. Zollo and Winter (2002, 340) support this by stating that firms integrate, build and reconfigure their competencies even in environments subject to lower rates of change. Consequently, this distinction is not discussed any further and, from the viewpoint of this study, it can be argued that current international markets are very seldom stable.

Finally, there have been diverging views regarding assumptions about the degree of heterogeneity in firms' dynamic capabilities. The majority of researchers have (implicitly or explicitly) assumed that dynamic capabilities are essentially firm-specific and unique (Makadok 2001; Teece et al. 1997; see also Barreto 2010, 263). However, some researchers (e.g. Eisenhardt and Martin 2000) have suggested that commonalities can exist between the dynamic capabilities of different firms. Although these views usually note that there is no such thing as exactly similar dynamic capabilities across firms they do suggest that some common features can be found in the dynamic capabilities of different kinds of firms. This study supports the latter view: that although dynamic capabilities are firm-specific, common characteristics can be found when the abstraction level of the examination is increased. Consequently, the study follows logic similar to Barreto (2010, 273), in the literature review, in which the author suggests that it is possible to conceptually assume commonalities across firms in one (or more) dynamic capabilities related dimensions, and also assume the remaining ones are idiosyncratic.

2.3.2 Enablers of dynamic capabilities

Enablers are constructs, or triggers, which have an impact on the successful development and deployment of dynamic capabilities (Ambrosini and Bowman 2009, 36). The literature review indicated that history often plays an essential role in the development of dynamic capabilities. For example, it has been stated that *"dynamic capabilities reside in large measure with the enterprise's top management team"* but because of path dependency they *"are*

impacted by the organisational processes, systems, and structures that the enterprise has created to manage its business in the past" (Teece 2007, 1346). To shed more light on the phenomenon, this study also acknowledges the role of managers' earlier experiences and the firm's history as enablers of dynamic capabilities possessed by the firm. The relevance of the prior experience of the entrepreneur or managers supports the idea that experiential knowledge and learning are crucial issues in explaining international growth (Zucchella et al. 2007) and, therefore, there is a clear linkage between dynamic capabilities and international growth. In other words, learning plays a major role in research into international business as well as research into dynamic capabilities. For example, Johansson and Vahlnes' (1977) Uppsala Model emphasises the role of experiential knowledge in internationalisation. Possessing this kind of knowledge increases firms' abilities to perceive international opportunities (see also Zucchella and Scabini 2007, 43). Therefore, from the perspective of enablers of dynamic capabilities, the main emphasis in this study is on studying the role of a firm's history (and learning) and managerial capabilities in enabling the underlying processes of dynamic capabilities to develop.

Managers play a key role in their firm's ability to adapt to changing circumstances because their decisions concerning strategy or organisation lie at the heart of the firm's performance. In today's economy, success requires that managers behave in an intensely entrepreneurial manner and build into their organisation the capacity to sense and seize opportunities and then transform and reconfigure them as further opportunities and competitive forces dictate. In other words, managers have to be able to build dynamic capabilities (Augier and Teece 2009, 411). However, a manager's capability to do this depends on factors such as motivation, skills and experiences (Zahra et al. 2006), and the dynamic capabilities that emerge over time in a firm are enabled by a series of decisions managers make on resource investments (Helfat et al. 2007, 53).

Management's role behind the dynamic capabilities possessed by a firm is often highlighted in previous research (see e.g. Eisenhardt and Martin 2000; Helfat et al. 2007; Ambrosini and Bowman 2009). Managerial capabilities encompass the managerial skills, strategic managerial leadership, managerial beliefs, and top management's strategic intentions that provide the impetus for underlying processes to emerge (Holbrook et al. 2000; Bruni and Verona 2009). Previous literature (see e.g. Adner and Helfat 2003, 1012) has sometimes also used the term 'dynamic managerial capabilities' to refer to a manager's capacity to create, extend or modify the resource base of an organisation. These dynamic managerial capabilities arise from a manager's prior learning and experience. In other words, they are based on enablers of dynamic capabilities. However, when talking about managers, it should be

kept in mind that, in a modern firm, the term ‘manager’ or ‘entrepreneur’ does not necessarily mean an individual. Instead, it is a function (Augier and Teece 2009, 417). As Schumpeter (1949, 71–72) noted: *“The entrepreneurial function may be and often is filled cooperatively – in many cases, therefore, it is difficult or even impossible to name an individual that acts as ‘the entrepreneur’.”*

In addition to managerial decision-making, path dependency is also often highlighted during studies of the evolution of dynamic capabilities. ‘Paths’ are about history and acknowledging that history matters (Ambrosini and Bowman 2009). Teece et al. (1997, 522) summarise the idea by stating that *“bygones are rarely bygones.”* Therefore, the common assumption behind the logic of dynamic capabilities is that a firm’s evolution and change are non-random and depend on the firm’s prior history. In other words, initial resource bases and viable paths for the future are both history and path dependent. Consequently, change is constrained and guided by past and present actions and by the organisation’s resource base. According to this logic, a firm’s performance, including in relation to growth, should be expected to persist over time (Teece et al. 1997; Helfat et al. 2007, 100).

While business opportunities are sought in international markets, there are some internal factors which have been linked with firms’ performance (see also Pett and Wolf 2009). Examples of these include international experience among top managers (Garnier 1982; Moon and Lee 1990), special competitive advantages (Jaffe et al. 1988), the possession of a unique product, technological competence (Koh 1989) and underutilised production capacity (Kaynak et al. 1987). These factors, emerging from the firm’s history, can also be seen to enable the development of dynamic capabilities. The role of a firm’s history behind dynamic capabilities could also be illustrated by stating that if the firm has been innovative during its history, it has probably learned good practices which can also be utilised to increase the firm’s innovativeness in the future. For example, Eisenhardt and Martin (2000) explain that path-dependent learning mechanisms shape the creation and development of a firm’s dynamic capabilities, and Teece et al. (1997, 520) state that learning is a process by which repetition and experimentation enable tasks to be performed better and faster. Previous literature has concluded that, for an organisation to learn, four general processes have to be followed (Huber 1991; Crossan et al. 1999; Zollo and Winter 2002, see also Zucchella and Scabini 2007, 106–107). First, organisations generate or acquire knowledge through distinct knowledge-creation processes (e.g. learning from experience and imitation). Second, in order for the learning process to continue, the members of an organisation must interpret and understand the new knowledge. Third, the already-interpreted knowledge has to be shared and integrated through the organisation.

Finally, once the new knowledge is distributed, it has to be stored in the organisation's memory, or institutionalised, so that others can use it when they need it (Huber 1991; Crossan et al. 1999; Zollo and Winter 2002). In this way, organisations change their routines and capabilities and create new ones (Zucchella and Scabini 2007, 107). Therefore, learning enables new production opportunities or promising international market niches to be identified, for example. From the perspective of international growth, market knowledge – which consists of general market knowledge and market-specific knowledge – plays a particularly important role. Both dimensions of this knowledge are needed when the firm enters a market. The latter can be acquired mainly through experience in the specific market, whereas the former can be transferred between markets. More precisely, general market knowledge concerns marketing methods and knowledge of certain characteristics of clients, whereas market-specific knowledge is about the characteristics of each foreign market and includes its market structures, business culture and the characteristics of local firms and their personnel (Johansson and Vahlne 1977; Zucchella and Scabini 2007, 43).

Consequently, the importance of practice and experience (i.e. experiential learning) in the development of dynamic capabilities is often underlined (e.g. Teece et al. 1997; Eisenhardt and Martin 2000). Zollo and Winter (2002, 344) suggest that a *"knowledge evolution cycle"* enables firms to change their routines. According to the authors, *"dynamic capabilities emerge from the co-evolution of tacit experience accumulation processes with explicit knowledge articulation and codification activities."* To summarise, learning capabilities facilitate the creation of dynamic capabilities (e.g. Easterby-Smith and Prieto 2008, 237). However, there are slightly contradictory views about the relationship between learning and dynamic capabilities. Some authors (e.g. Teece et al. 1997; Bowman and Ambrosini 2003) refer to learning as a specific type of process underpinning dynamic capabilities, whereas others argue that learning mechanisms guide the evolution of dynamic capabilities (Eisenhardt and Martin 2000; Winter 2003). This study's view is close to the view of Zollo and Winter (2002) who consider dynamic capabilities to be the result of learning to shape operational capabilities. In other words, learning capabilities enable the development of dynamic capabilities.

2.3.3 Classifying dynamic capabilities

Previous literature has provided several classifications for dynamic capabilities depending on the dimensions of the phenomenon under investigation (see e.g. Collis 1994; Danneels 2002; Winter 2003; Alsos et al. 2007; Teece 2007).

One of these classifications was provided by Collis (1994) who was first to propose that there might be distinct levels of dynamic capabilities. He suggested that there are four categories of capabilities, the first being the resource base itself. The second and third categories of Collis (1994) come very close to the definitions of dynamic capabilities provided by Teece et al. (1997) and Helfat et al. (2007). In broad terms, both Collis (1994) and Winter (2003) distinguish between the modification of the resource base and the creation and extension of the resource base. The fourth category is what Collis calls *"higher order"* or *"meta-capabilities"* and is related to learning-to-learn capabilities. Collis (1994, 148) also states that to outperform competitors, firms need to deploy these meta-capabilities; *"the capability that wins tomorrow is the capability to develop the capability to develop the capability that innovates faster (or better) and so on."* It seems that the idea behind the typology of capabilities provided by Collis (1994) comes very close to the core idea of dynamic capabilities. These ideas were further developed by Danneels (2002) and Ambrosini et al. (2009). Danneels (2002) proposes that there are two competency types: first-order competencies which constitute the ability to achieve an individual task; and second-order competencies, the firm's ability to renew itself through creating new first-order competencies. Ambrosini et al. (2009) view Danneels' (2002) first-order competencies as a firm's existing resource base, the resources that allow the firm to directly earn a living. However, according to them, Danneels' (2002) second-order competencies refer to dynamic capabilities that enable the creation of new resources. At this point, while referring to justifications concerning the distinction made between dynamic capabilities and 'ordinary' capabilities, the ideas provided by Winter (2003) are worth mentioning. The author proposes that there are zero-level capabilities, also called ordinary or operational capabilities, which he defines as those that permit the firm to earn a living in the present. However, there are also first-level capabilities which modify and change zero-level capabilities. In his view, these are dynamic capabilities.

An illustrative example of how the core ideas of the authors referred to above can be transferred into the context of this study is provided by thinking that an SME might, as a result of its history and its manager's experience and relationships, have a really good view of the structural changes emerging in the firm's industry during the coming years. This can be considered an ordinary capability. However, to also be able to utilise this capability effectively in the future, the firm has to continuously modify its views concerning the business environment. This might be done, for example, through combining information gathered from managers' social networks, signals noted by sales representatives and reports provided by research institutes. This continuous modification of ordinary capabilities reflects the dynamic capabilities

possessed by the firm. As Easterby-Smith and Prieto (2008, 237) suggest: *"there is a distinction between dynamic capabilities and operational capabilities, with changes in the latter being the visible outcome of dynamic capabilities."*

To sum up, recent reviews of the field have shown how scholars consider dynamic capabilities as high-level processes through which organisations a) develop and evolve their operational capabilities, and b) manage the resource base in order to generate and sustain their performance (Wang and Ahmed 2007; Ambrosini and Bowman 2009; Easterby-Smith et al. 2009). These findings were also noted when creating the classification for this study. The classification has its roots in the study of Alsos et al. (2007), although Teece's (2007) classification has also influenced this study's classification. In addition, many other findings which emerged in previous studies (e.g. Eisenhardt and Martin 2000) have refined the content of the classification utilised in this study.

In the field of dynamic capabilities research, there is an increasing interest in the organisational processes necessary to enable a firm to move from its initial resource position to a new or modified strategic path (Helfat et al. 2007). Therefore, as already mentioned, the classification of this study relies on three organisational processes which were identified as playing a significant role in previous studies concentrating on dynamic capabilities related issues. These processes are 1) *opportunity search* (e.g. Teece et al. 1997; Pierce et al. 2002; Alsos et al. 2007; Teece 2007; Augier and Teece 2009), 2) *resource acquisition* (e.g. Alsos et al. 2007; Ghanam and Cox 2007; Sirmon et al. 2007) and 3) *resource reconfiguration* (e.g. Teece et al. 1997; Eisenhardt and Martin 2000; Bowman and Ambrosini 2003; Lòpez 2005; Sapienza et al. 2006; Alsos et al. 2007; Sirmon et al. 2007, Teece 2007). Conceptually this process discussion has provided a starting point to unpack the micro-foundations of dynamic capabilities, but these processes still have to be conceptualised more precisely and differentiated from dynamic capabilities (Ridder et al., forthcoming). However, it is very important to keep in mind that the studied processes are often intertwined.

In summary, the critical aspects of dynamic capabilities are a firm's ability to identify changes in its market environment, its ability to sense opportunities (i.e. opportunity search processes) and its ability to accomplish the necessary transformation in the firm's resource base (i.e. resource acquisition and reconfiguration processes) which reconfigures resources and creates significant value (Easterby-Smith and Prieto 2008, 241). The organisational processes underpinning dynamic capabilities are introduced in more detail in the following section.

2.4 Organisational processes underlying dynamic capabilities

This study views certain underlying organisational processes as mechanisms which put dynamic capabilities into use and which can develop firms' dynamic capabilities (Helfat et al. 2007). The research therefore focuses on three specific processes identified during the literature review as crucial for dynamic capabilities. Opportunity search, resource acquisition and resource reconfiguration processes were chosen to represent the organisational processes underlying dynamic capabilities (see Chapter 2.3.3). It is assumed that these processes consist of operational capabilities (Winter 2003) and dynamic capabilities are higher-level processes renewing and reconfiguring these organisational processes so that the firm is able to respond to the changing business environment. These organisational processes were also seen as so-called meta-themes guiding the empirical analysis of the research data (see Chapter 3.6).

2.4.1 Opportunity search

As a concept, the term 'opportunity' has slightly different descriptions depending on whether it is studied by strategic management researchers or entrepreneurship researchers. It has been stated that the essence of entrepreneurship is the identification and creation of new opportunities, whereas the essence of strategic management is in how these opportunities can be transformed into (sustainable) competitive advantage (Venkataraman and Sarasvathy 2001; Zahra and Dess 2001: Kuratko et al. 2005). However, it has also been suggested that entrepreneurial opportunity seeking is also strategic behaviour with the aim of value creation (Ireland et al. 2003; Ramachandran et al. 2006). In this study, both sides of the opportunity concept are noted. In addition, ideas about the concept of opportunity are closely related because, according to Shane and Venkataraman (2000), an idea is something which can lead to an opportunity which can then be evaluated and finally utilised.

Briefly, presenting opportunities as either concrete realities or as an enactment of an entrepreneur's unique vision have shaped the two dominant views of the opportunity construct (Alvarez and Barney 2007). The first view positions opportunities as discovered. In other words, opportunities are viewed as a function of tangible reality and they exist "out there" waiting to be found. The other dominant view positions opportunities as created – a function of enacted actions that emerge during entrepreneurial processes (Short et al. 2009, 54). For instance, Ardichvili et al. (2003, 106) argue that "opportunities

are made, not found." The three critical assumptions of discovery and creation theories are summarised in Table 3 (Alvarez and Barney 2007, 127).

Table 3 Central assumptions of discovery and creation theories of entrepreneurial action (adopted from Alvarez and Barney 2007)

	Discovery Theory	*Creation Theory*
Nature of Opportunities	Opportunities exist independently of entrepreneurs ("exogenous shocks"). Applies a realist philosophy.	Opportunities do not exist independently of entrepreneurs ("... are created endogenously"). Applies an evolutionary realist philosophy.
Nature of Entrepreneurs	Differ in some important ways from non-entrepreneurs, ex ante.	May or may not differ from non-entrepreneurs, ex ante. Differences may occur, ex post.
Nature of Decision Making Context	Risky	Uncertain

Although Alvarez and Barney (2007) found differences between opportunity discovery and opportunity creation views, they also found similarities. Both theories for example assume that the goal of entrepreneurs is to form and exploit opportunities. Moreover, both theories recognize that opportunities exist when competitive imperfections exist in a market or industry. As a consequence, for example Short et al. (2009, 54) suggest that a reasonable middle ground position is that some opportunities are discovered whereas others are created. Short et al. (ibid) also believe that the literature will move toward this position in the near future because this position raises interesting contextual questions for scholars to explore regarding when and how opportunities are found or created. This study acknowledges this possibility although the theoretical framework of the study may emphasise the view of opportunities as there to be discovered a little more than the created counterpart. The reason for this is pragmatic: the origins of the creative process view[7] are more recent than the older views based on the market as a discovery process[8].

[7] According Sarasvathy et al. (2003): "If only one side – i.e., demand exists, but supply does not, and vice versa – then, the non-existent side has to be "discovered" before the match-up can be implemented. Examples include: Cures for diseases (demand exists; supply has to be discovered); and applications for new technologies such as the PC (supply exists, demand has to be discovered)."

[8] According Sarasvathy et al. (2003): "If neither supply nor demand exists in an obvious manner, one or both have to be "created" and several *economic* inventions in marketing, financing etc. have to be made, for the opportunity to come into existence."

Consequently, the opportunity discovery approach has been more often studied by entrepreneurship scholars (see e.g. Alvarez and Barney 2007, 127; Hansen et al. 2011, 292) and Sarasvathy et al. (2003) for example stated that the creative process view is not yet as well developed as the discovery process view. Almost a decade later, the literature review here indicates that the situation remains almost unchanged. Moreover, it should be acknowledged that scholars are far from reaching consensus on entrepreneurial opportunity and opportunity-related processes (Hansen et al. 2011, 285). However, since this study's framework relies more on opportunity discover approaches, it follows that systematic scanning of the environment for new business opportunities will play a major role in the study.

Opportunity search processes and revealing potential can be thought to be fundamental from the perspective of all entrepreneurial and innovative activities (Stevenson and Jarillo 1990). Decision-makers need information about changing consumer needs and technology. However, such information is not always available and, if it is available, decision-makers have to collect the information, analyse it, synthesise it, and act on it inside the firm (Helfat et al. 2007, 26). There are several findings in the strategy literature suggesting that the concept of environmental scanning conveys how firms respond more rapidly to changes in the environment (Thompson 1967; Pfeffer and Salancik 1978, Daft et al. 1988; Helfat et al. 2007). In addition, Verhees and Meulenberg (2004) also link market orientation and market intelligence to performance. Firms often get new ideas (e.g. new product or process innovations or new geographical markets) from their current clients. For example, research into product development has shown that the original ideas behind new product innovations often stem from customers' needs (e.g. Myers and Marquis 1969; Cooper 1979), and it is therefore suggested that successful product development prospers from a firm's interaction with its customers. Therefore, this study assumes that knowledge plays an important role while SMEs are seeking business opportunities from international markets.

Searching for new growth potential from abroad can be challenging for SMEs because building an extensive picture from the competition in certain markets demands that management gathers knowledge concerning recent and predicted changes in the local market environment. However, access to this knowledge can be difficult because the most important knowledge is often changed in informal relationships. For example, if management has good relationships with its suppliers and other actors in the industry it may get signals in advance concerning changes occurring in the industry's technological standards and therefore it has more time to prepare than some of its competitors may have. As a result, the firm can make good profits in the early phase of this technological change by being one of the pioneers in a specific

product market. However, it should be kept in mind that there is also the possibility that change never occurs and SMEs' investments are trifling. Consequently, in addition to scanning, evaluation of opportunities is also essential for SMEs' performance. As Teece et al. (1997) note, a firm must have the ability to evaluate its environment and continuously develop new ideas and, as a consequence, new business opportunities.

To build an extensive view of a firm's business environment, the management should be able to understand both dimensions of knowledge: internal and external (Johannessen et al. 1999). Moreover, several authors have stated that identifying and shaping opportunities requires constant scanning, searching and exploring across technologies and markets, both local and distant (March and Simon 1958; Nelson and Winter 1982). According to Teece (2007), these activities not only involve investments in R&D, marketing research and technological opportunities, they also involve understanding latent demand, the structural evolution of industries and markets as well as supplier and competitor responses. Consequently, information processing capabilities that may enable the firm to build an extensive picture of the changing market environment and sense the opportunities it holds are especially important (Teece et al. 2002).

In summary, it is suggested that gathering information, and understanding and making sense of the market and the environment are all part of the opportunity search processes and work in an SME's favour while international growth is sought. Changes in markets and technologies can open up promising opportunities for a new business and, if the firm is able to find these before its competitors, there are good opportunities to make a profit (e.g. Denrell et al. 2003). However, not all managers perform different aspects of opportunity search equally well and, therefore, enablers (see Chapter 2.3.2) must also be noted when dynamic capabilities are studied. For example, Adner and Helfat (2003) show that although managers in the US petroleum industry faced similar business environments, they made different strategic decisions that, when implemented, were associated with different financial performances. Constrained by bounded rationality (Cyert and March 1963), managers often do not observe what is changing and, therefore, do not respond in a timely fashion to new environmental stimuli (Helfat et al. 2007). In addition, although significant data on environmental changes are well known to them, many managers still do not adjust to a new situation. Rather than missing the change, executives sometimes just choose to ignore the data. As Helfat et al. (2007) put it: managers choose not to cope with change. Managerial decisions can be dependent on many factors, such as a manager's previous experience and their ability to integrate knowledge gathered from various sources. This illustrates that situations are dealt with in several ways, sometimes by creating

rules, which specify how the organisation will respond to the observations made (March and Simon 1958). However, these rules should also be revised when environments change. This again requires that the firm possess dynamic capabilities.

Consequently, the opportunity search processes establish a framework for the entire strategic activity for change within the firm, not least the attachment to earlier solutions and activity patterns, the level of experimentation and the extent of external exploration and integration (Alsos et al. 2007). If managers misperceive the situation of the firm, they may trigger inappropriate dynamic capabilities that do not enhance or maintain performance (Ambrosini and Bowman 2009, 39). The firm will then experience both the costs of the dynamic capabilities as well as the negative consequences of their deployment (Zahra et al. 2006).

In general, there have been two slightly different views concerning the relationship between opportunity search processes and dynamic capabilities. One stream suggests that opportunity search processes are the same as dynamic capabilities (e.g. Augier and Teece 2007; Teece 2007), whereas the other stream suggests that opportunity search processes are not dynamic capabilities in and of themselves. Instead, they are managerial and organisational processes that underpin and enable the deployment of dynamic capabilities (e.g. Helfat et al. 2007). This study leans towards the latter view and opportunity search processes are understood as one class of processes underpinning dynamic capabilities. This class again consists of operational capabilities such as capabilities to scan the market environment efficiently (e.g. Zollo & Winter 2002; Lee et al. 2002) and to generate new ideas (McKelvie & Davidsson 2006). However, both streams clearly admit that opportunity search processes are important elements in dynamic capabilities.

2.4.2 Resource acquisition

According to Helfat et al. (2007) one of the most important ‘how’ questions related to dynamic capabilities concerns how firms can build or acquire new resources and capabilities. After a firm’s managers have observed new business opportunities, they must figure out how to interpret new events and developments, which technologies to pursue and which market segments to target (Teece 2007). If a firm lacks relevant resources, it typically needs to search for new resources outside the firm (Helfat et al. 2007). Previous research has usually focused on direct investment as a way of acquiring resources (Wernerfelt 1984; Barney 1986; Peteraf 1993). In addition, resources can also be acquired through other processes or through activities

undertaken in product markets (e.g. Andersén 2007). Dynamic capability literature has, for example, paid attention to alliances as a source of resources (Eisenhardt and Martin 2000). However, when studied from the perspective of cooperation and networking, there are significant differences between SMEs. In other words, some firms are more efficient than others at organising cooperation and finding good partners to operate with. Previous literature in this field has also discussed the recruitment of new managers and personnel (e.g. Rindova and Taylor 2002), and acquisitions and post-acquisition integration (e.g. Zollo and Winter 2002) which are common when observing dynamic markets. Helfat et al. (2007, 80–99) explore how firms use business acquisitions to obtain new resources and refer to these processes as acquisition-based dynamic capabilities which complement a firm's alliance-forming capabilities. Acquisitions are also seen to represent dynamic capabilities by Karim and Mitchell (2000). Furthermore, it is important to have access to tangible resources such as new capital, as this can provide SMEs with the ability to invest in dynamic capability development (McKelvie and Davidsson 2009). In general, financial capital is fundamental for firms to survive and grow (Shane 2003). Firms with more capital can pursue business opportunities more effectively by being able to overcome liquidity constraints and making more profound investments (Shane 2003).

The acquisition of strategically important resources can, in turn, lead to a means of competitive advantage (Barney 1986) and, therefore, clear connections can be found between opportunity search and resource acquisition processes. In other words, before the acquisition of resources, the firm has to identify which resources it needs and evaluate which resource combination from the possible alternatives best suits the firm's purposes. For example, training courses for managers or employees enable firms to develop new skills and capabilities. For management, training courses are particularly important because they allow them to expand their vision and entrepreneurial orientation, in terms of searching and evaluating new opportunities as well as reconfiguring resources and competencies (Zucchella and Scabini 2007, 128).

The selection of new resources comprises an important dynamic managerial capability (Helfat et al. 2007, 117) because resources in general have a critical role in the success of the firm (e.g. Amit and Schoemaker 1993; Barney 1991; Grant 1991). Sirmon et al. (2007) state that firms often need new resources to respond to changing customer demands and changes in the external environment. As a result, the ability to obtain new resources – whether physical, financial, or human – is critical in order to support the firm as it grows (Barney 1991). One key resource that can have a positive effect on a firm's growth is technology. This is because new technological knowledge may complement, and therefore, leverage the firm's own knowledge output.

Consequently, new technological knowledge improves a firm's manufacturing processes or products and, eventually, the firm's performance (Cohen and Levinthal 1990). However, it is more likely that new technologies may have a positive effect on a firm's performance when the firm already has enough resources (Jones et al. 2001), which can be updated or replaced with newer technologies.

On the other hand, there is always a risk that management could decide to invest in the wrong resources. For example, when an SME negotiates with a major partner in a situation of asymmetric power balance, the counterpart may try to manipulate the SME's management. One solution to this challenge is the development of personal business associates where confidence may provide access to supplementary resources, thereby reducing the risk of opportunism and, as a consequence, transaction costs (Madsen 2010, 10). In other words, social networks are important enablers of efficient resource acquisition processes.

Finally, Westhead et al. (2004) state that some 'traditional' internationalisation models (e.g. stage model theory, see Johanson and Vahlne 1990) view internationalisation as a resource acquisition process and a learning process.

2.4.3 Resource reconfiguration

Surviving in changing market situations requires the firm to be able to modify its resource base. This can be done, for example, by integrating acquired resources with the resource base already possessed by the firm. This kind of integration can be illustrated by the form of new product innovations where a firm's ability to integrate and combine assets (including knowledge) often plays a major role (Grant 1996; see also Teece 2007).

From the viewpoint of a firm's growth, capabilities related to reconfiguration are essential because growth is often related to R&D, product innovation and the ability to gain competitive advantage in product markets (Romano 1990). By opening new markets to the firm, new products provide firms with momentum for market share growth and improved profitability (Iansiti 1995; Zahra and Nielsen 2002) and it is, therefore, obvious that reconfiguration processes are intertwined with opportunity search as well as resource acquisition processes. However, firms must do much more than simply allocate large expenditures to R&D to sustain superior performance. The innovation process requires active orchestration of both tangible and intangible assets by entrepreneurs and managers. This is true whether the context is SMEs or large firms, and understanding this orchestration is at the centre of the dynamic capabilities approach (Augier and Teece 2009). In other words, opportunities

to make good profits require that a firm has the capabilities to continuously build, maintain and adjust its product offerings, structures and routines (Teece 2007). Consequently, the firm needs not only new resources but also the capabilities to change those resources into new combinations as the firm grows. If it has the capabilities to shape its existing resources into new products and routines, it appears that the firm needs fewer new resources and therefore it has the opportunity to make cost savings.

Resource reconfiguration capabilities therefore play a significant role above and beyond a firm's innovations. Danneels (2002) studied how, over time, product innovation leads to organisational renewal and could therefore be considered a dynamic capability. This argument is based on a study of five high-tech firms, which showed that new product development was connected to the development and renewal of firm-level capabilities and not only to the expansion of a firm's product portfolio.

However, innovations do not necessarily have to be very radical and complementary innovations are also important. This is especially the case in industries where innovation might be characterised as cumulative, and/or where industry 'platforms' exist or are needed. An illustrative example of complementary (or incremental) innovation is better high-energy rechargeable batteries which enable laptop computers and cell phones to operate for longer times (Teece 2007). Although 'innovation' as a term is often perceived as a new or upgraded product, process innovations can also play an important role in the international growth of SMEs. For example, Walker (2005) concluded that process improvement was a contributor to organisational performance, and it is also suggested that resource-constrained firms (i.e. SMEs) have to get maximum productivity from the resources they possess (Pett and Wolf 2009). Therefore, the continuous improvement of processes is often crucial to a firm's performance.

If a firm's product or process innovations are incremental in nature, routines and structures can probably be adapted gradually. However, if innovations are radical then there will be a mandate to completely revamp the organisation and create an entirely new 'break out' structure (Teece 2000) within which a totally different set of structures and procedures is established (Teece 2007). However, as the firm grows it has more assets to manage and, over time, successful firms will develop hierarchies, rules and routines that begin to constrain certain interactions and behaviours unnecessarily. Except in a very stable environment, such rules and procedures are likely to require constant enhancement if superior performance is to be sustained (Teece 2007). It is not rare to notice that a once functional routine becomes dysfunctional, leading to inertia and other rigidities that stand in the way of improved performance (Leonard-Barton 1995; Rumelt 1995). As a result, firms which

have fewer resources can end up winning in the marketplace because they can react more rapidly to the radical changes occurring in the market environment. According to Teece (2007), in order to sustain dynamic capabilities firms must favour decentralisation in their strategic decision-making because it brings the firm's top management closer to new technologies, the customer and the market. In addition, Jantunen (2005) makes a similar finding and suggests that human resource management techniques can also improve performance. Examples of these techniques are decentralisation of decision rights, teamwork, flexible task responsibilities and performance-based rewards. However, in SMEs that have been studied, managers often have relatively good contact with the firm's market environment. In other words, there are not too many layers in the organisation, for example, between the sales representatives and the firm's CEO.

To summarise, organisational structure reconfiguration is also associated with dynamic capabilities; by reconfiguring their business units, firms can recombine their resources and adapt to environmental changes (Karim 2006). In addition, resource divestment can also be seen to reflect a firm's dynamic capabilities (e.g. Moliterno and Wiersema 2007).

2.5 Defining the theoretical framework for the empirical study

The theoretical framework (Figure 3) used in this study is created by combining the findings introduced in the previous chapters. During the literature review, it was found that there are forces, such as a firm's history (Teece et al. 1997; Ambrosini and Bowman 2009) and its manager's capabilities (e.g. Teece 2007), which enable the development and deployment of processes underpinning dynamic capabilities. In this study these forces are called *enablers* of dynamic capabilities. The common assumption behind the logic of dynamic capabilities is that change and evolution in a firm depend on that firm's prior history (e.g. Teece 1997; Helfat et al. 2007). In other words, a firm's capability to change is enabled by a series of decisions managers have made in the past (Helfat et al. 2007, 53). This can be illustrated for example by considering the role of financial resources. If the firm has been succesful in the past, it will be better equipped to conduct risky investments (e.g. acquisitions) which are often prerequisites for its international growth. Therefore, in order to understand the role of dynamic capabilities in the international growth of SMEs, it is necessary to build a picture of the major events of the firm's history. Moreover, having some knowledge of the background of a firm's management helps the reader to understand the reasons for the crucial decisions made to support the international growth of the firm. For instance, if

a firm's managers have already operated for decades in the business and have access to wide international networks, they probably also make faster and more successful decisions, relying more on their intuition than less experienced managers (e.g. Garnier 1982; Moon and Lee 1990). In other words, less experienced managers have to place more trust in formal information gathered from official sources, which can be more time consuming. So, managers have to be able to build dynamic capabilities, but whether they can do so depends on factors such as experience, motivation and skills (Zahra et al. 2006; Augier and Teece 2009).

Because this study aims to research dynamic capabilities, it is essential to study the processes which are the mechanisms by which the dynamic capabilities are put into use. In other words, it could be argued that dynamic capabilities are embedded in processes (e.g. Zott 2003, 98). On the basis of the literature review (see e.g. Bowman and Ambrosini 2003; Alsos et al. 2007; Teece 2007), three forms of organisational processes underpinning dynamic capabilities were chosen for closer study. In this study, it is assumed that these organisational processes consist of operational capabilities[9] (Winter 2003) which permit the firm to earn income in the present. On the other hand, dynamic capabilities are higher-level capabilities which modify and change operational capabilities (e.g. Collis 1994; Danneels 2002; Winter 2003; Ambrosini et al. 2009). The difference between operational and dynamic capabilities is further illustrated by Zahra et al. (2006, 921) who state that a new routine for product development is a new operational capability but the ability to change such capabilities is a dynamic capability. This view is supported by Easterby-Smith and Prieto (2008, 237) who suggest that *"there is a distinction between dynamic capabilities and operational capabilities with changes in the latter being the visible outcome of dynamic capabilities"*. In addition, it is assumed that operational capabilities that are currently functional can soon become dysfunctional if they are not upgraded (see e.g. Leonard-Barton 1995; Rumelt 1995) and it is in these upgrading processes that we can find illustrative examples of dynamic capabilities possessed by the firm.

So, it is assumed that dynamic capabilities can be identified by studying how SMEs have changed their organisational processes during the international growth of the firm. International growth as a context is assumed to provide informative examples for studying dynamic capabilities because it ensures that these SMEs really have faced recent changes in their business environment and it is likely that these changes have required the firms to modify their capabilities. In other words, dynamic capabilities are concretised

---

[9] Operational capabilities may also be called zero-level or ordinary capabilities (Winter 2003), first-order competencies (Danneels 2002) or substantive capabilities (Zahra et al. 2006).

by studying *why* and *how* firms have modified their processes to promote their international growth.

The selected processes (opportunity search, resource acquisition and resource reconfiguration) are investigated in the empirical part of this research by studying their role in the events which were identified as playing significant roles behind the studied SMEs' international growth during the research period. In other words, by exploring the role of these processes in chosen cases, it is concretised *why* and *how* the studied SMEs seized the opportunities they sensed. Because dynamic capabilities are context-dependent, the circumstances (e.g. industrial characteristics, economic situation etc.) in which international growth took place and dynamic capabilities were analysed (*where* and *when*) also has to be noted.

The first processes underlying dynamic capabilities to be studied in this research are labelled as opportunity search (see Chapter 2.4.1). From the perspective of all entrepreneurial activities of a firm, these processes are fundamental (Stevenson and Jarillo 1990). For example, to be able to launch new product innovations, the firm has to be able to search and combine new knowledge. On the other hand, there are numerous findings in the previous literature indicating that if the firm is able to effectively scan its business environment it can also respond more rapidly to changes in the environment (e.g. Thompson 1967). As, for example, Jantunen et al. (2005 a and b) put it: recognition of business opportunities is an essential element in the dynamic capabilities framework. This dimension of dynamic capabilities is sometimes called *sensing* of opportunities (Teece 2009).

After a firm's managers have observed new business opportunities, they must figure out how to interpret new events and developments, which technologies to pursue and which market segments to target. Teece (2009) calls this dimension of dynamic capabilities *seizing* opportunities. In this study this seizing phase includes both the resource acquisition processes (see Chapter 2.4.2) and resource reconfiguration processes (see Chapter 2.4.3) underpinning dynamic capabilities. In other words, it is not enough to only observe a promising business opportunity; a firm's management also has to be able to capitalise on it. If the firm lacks the relevant resources to do this, its management has to be able to search for new resources and add these into the firm's resource base (e.g. Helfat et al. 2007, Sirmon et al. 2007). Again, there is a clear linkage between enablers of dynamic capabilities and resource acquisition processes because investments in new resources usually require that a firm possess financial capital, which again is an outcome of actions taken by the firm's management in the past. So, conducting changes in the resource base often requires financing capabilities and firms with more capital can pursue business opportunities more effectively (Shane 2003). This is a

logical result of such firms not having to dedicate so much time to negotiating with financiers.

On the other hand, resource reconfiguration processes also have an essential role in the development of dynamic capabilities and firms can for example often upgrade their resource base by integrating acquired resources with the capabilities they already possess. Moreover, firms can also develop new products or services by reconfiguring resources and capabilities they already possess in novel ways (e.g. Grant 1996; Teece 2007). In general, new innovations often require a firm's R&D capabilities to be reconstructed and upgraded (e.g. Danneels 2002). These new innovations are again often a prerequisite for firm growth (e.g. Romano 1990). So, a clear linkage can be found between the processes of resource acquisition and resource reconfiguration, and it is stated that reconfiguration capabilities can reduce the need to acquire new resources (Kuuluvainen et al. 2009).

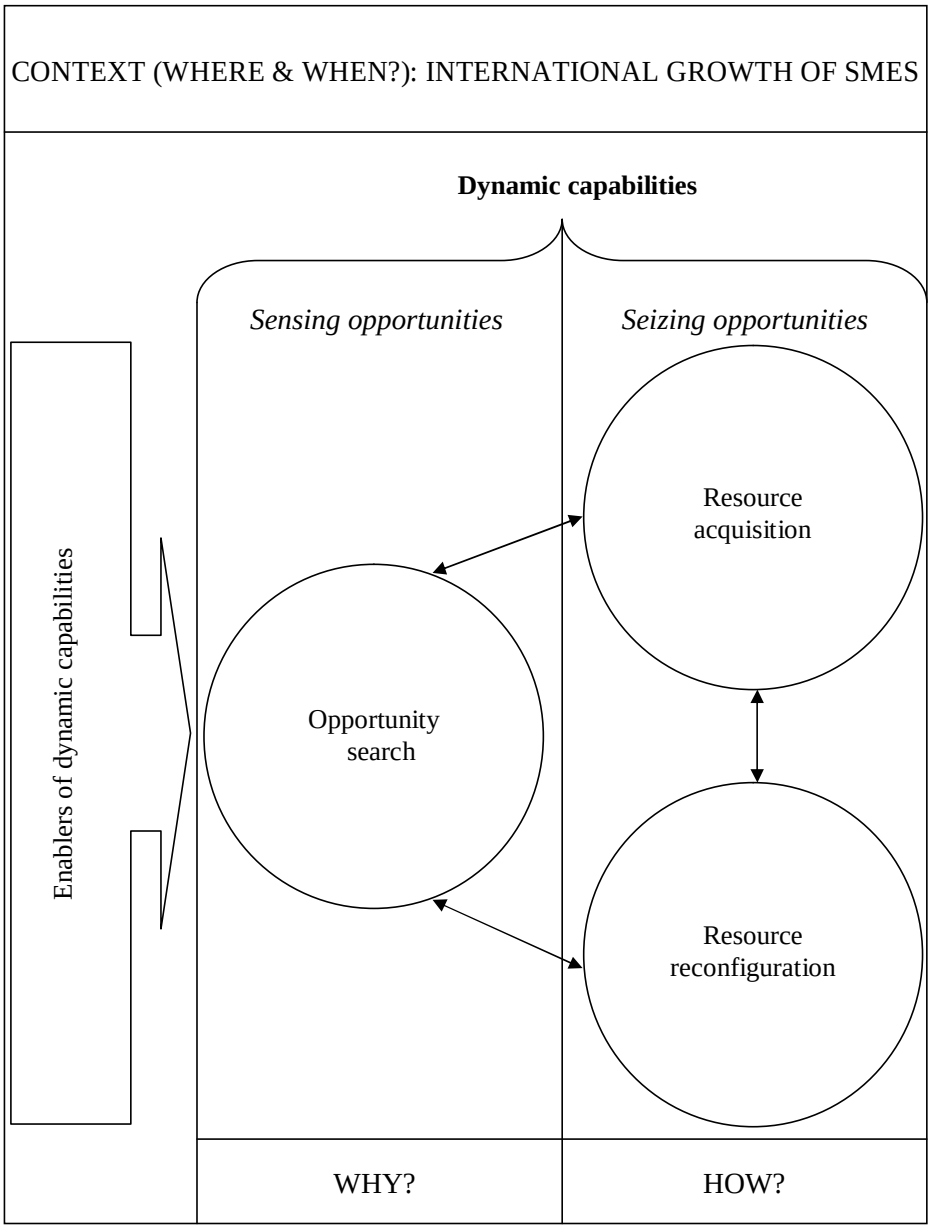

Figure 3 Framework of the study

Several interrelations between the constructs presented in Figure 3 have already been referred to above, but there are still some relationships that merit attention. For example enablers of dynamic capabilities like learning (in particular experiential learning) and experience are often described as

important factors behind international growth of a firm (e.g. Johansson and Vahlne 1977). When firms possess experiential knowledge, the chance that they will identify new international business opportunities increases (Zucchella and Scabini 2007). Hence, a clear linkage between enablers of dynamic capabilities, opportunity search processes and international growth can be identified. In addition, there are several similar links between constructs introduced in the framework. After the firm has identified an international business opportunity, it often has to improve its products to meet the requirements of new geographical markets. These product development processes again require that new resources be integrated with existing resources and capabilities.On the other hand, acquisition of these new resources usually requires financial resources. So, it is important to acknowledge that these constructs cannot be studied entirely separately from each other and that changes in one process often mean that other processes are also modified.

Finally, it can be assumed that every firm possesses some dynamic capabilities. The world is not stable and markets change continuously. Hence it is argued that a firm's survival requires that it is able to react to these changes by reconfiguring its capabilities. However, the target of this study is to provide solid examples of those dynamic capabilities in SMEs that have recently achieved growth in international markets. These can be identified by studying how the SMEs have changed their organisational processes during their international growth periods.

3 RESEARCH APPROACH AND METHODS

As with any human action, research is grounded in philosophical perspectives, implicitly or explicitly. Ignoring philosophical issues, though not necessarily fatal, can seriously affect the quality of research in management science (Easterby-Smith et al. 1991). This study shares the view suggesting that researchers set out to describe and analyse a pattern of relationships which requires a set of analytic categories (Mishler 1990; Miles and Huberman 1994). Categories guiding the analysis of the study are justified theoretically in Chapter 2 and presented in detail in Chapter 3.6. However, methodological choices are never clear or indisputable. Due to different assumptions, the research community has positioned itself in different camps, arguing strictly for the supremacy of their own philosophical and methodological standpoints and against each other (for the discussion: e.g. Töttö 2000). This chapter starts by discussing the philosophical underpinnings of the study. After that, the research design of the study is introduced.

3.1 Philosophical underpinnings

Studies emerging from the field of the resource-based view have usually relied on very positivistic perspectives (e.g. Hätönen 2008). This can be partly explained through the fact that the main emphasis of the field has been on quantitative studies. However, this study is done from the viewpoint that it is not possible to achieve the absolute truth of the real world and, therefore, the ontological assumptions of the study fall into the realist approach. The realism approach, overlapping with post-positivism, interpretative or phenomenological approaches, understands reality as holistic, and socially constructed rather than objectively determined (as positivism does) (Amaratunga and Baldry 2001). In other words, this study is characterised more by theory building and verification than hypothesis testing. Next, the philosophical background of the study is briefly discussed.

There are different views concerning classifications of science. For example, Peter and Olson (1983) suggest that different approaches to science can be divided into two categories: positivistic/empiricist and relativistic/constructionist. However, Guba and Lincoln (1994), for example, have also

named competing paradigms[10], such as positivism, post-positivism, critical theory and constructivism. In terms of the paradigms of Guba and Lincoln (1994), this study is most closely aligned with post-positivism. Post-positivism represents critical realism as it assumes that reality is apprehended only imperfectly. When observed from the epistemological perspective, post-positivism assumes that research is objectivistic and the findings are probably true. Post-positivism or realism also prefers using multiple methods, including qualitative methods.

In addition to being the dominant paradigm in dynamic capabilities studies, the positivistic approach has also been strong in case studies. This can be explained by the fact that the major scholars (e.g. Eisenhardt 1989; Yin 2003) in the field have emphasised positivism in their studies. However, during the last 15 years, realism has also become increasingly popular in case studies (Piekkari et al. 2009) and it has even been stated that realism is a more appropriate epistemological guide for case-study research than positivism (Perry 1998). Supporters of realism have, in particular, questioned the assumptions related to causality which are inherent in the positivistic ideal of theorising (e.g. Ragin 1992; Ragin 1997; George and Bennet 2004; Mahoney and Goertz 2006; Piekkari et al. 2009) and they strongly suggest that, to be meaningful, explanations have to take contextual factors into account. In other words, explanations are local and historical rather than law-like (Piekkari et al. 2009). In this study, dynamic capabilities are studied in the context of international growth in Finnish SMEs. The context influences the result of the study. For example, the small size of Finnish domestic markets almost certainly has an influence on firms' willingness to seek growth from international markets. In addition, from the perspective of dynamic capabilities, it is suggested that what is a dynamic or an operational capability depends on context (Kay 2010).

Literature often presents subjectivist and objectivist approaches as opposite ends of a continuum where one end represents a very objective view of the world and the other one a very subjective view of the world. However, it is good to keep in mind that these two approaches are only two extremes on the continuum, not the only possible alternatives. Therefore, it is more useful to see these two approaches as complementary rather than as two opposite extremes (e.g. Remenyi et al. 1998). In practice, qualitative case studies rarely represent either of the main approaches (positivism or realism) purely but, instead, at least some features from each approach can be identified.

---

[10] According to Guba and Lincoln (1994) a paradigm can be described as a world-view describing the nature of the world, a person's place in it and their relationship to the world. A paradigm is a person's best perspective about the world based on the answers to metaphysical questions.

3.2 Research design

The researcher's interest in internationalisation and the international growth of firms emerged during his Master's thesis which focused on SME export cooperation. The researcher also worked for the Finnish export agency and hence had a chance to observe how international business is done in practice. After graduating, he worked for the TSE Entre research team in the Turku School of Economics, Finland. There he became involved in several research projects related to international business and firm growth. During this time the researcher had been wondering why some small firms seem to achieve international growth and success rapidly whereas others fail to do so. Consequently, this question was a good starting point for the research process for his dissertation. The research data were provided mainly by a larger research programme conducted in TSE Entre between 2004 and 2009. The programme was particularly interested in different dimensions of firm growth among Finnish SMEs.

In the early phase of the dissertation process the researcher found a fresh and interesting approach from the literature on strategic management. This approach, called dynamic capabilities, seemed to be suitable for adapting to the context of international growth. However, considering the breadth of international business and strategic management theories, finding a suitable approach was not a painless process. This can also be seen by observing conference papers and other publications written by the researcher during the time of his dissertation process. His first papers emphasise the internationalisation and international growth aspect of SMEs (e.g. Paavilainen and Kuuluvainen 2008a; Paavilainen and Kuuluvainen 2008b). However, the researcher soon started to direct his interest more towards strategic management theories, especially towards the theory of dynamic capabilities (e.g. Kuuluvainen et al. 2009). Writing and presenting conference papers, alone as well as together with other researchers, helped the researcher to create a more extensive picture from the studied phenomena, as well as from the useful feedback provided.

During the pre-understanding phase, the literature review and discussions with other postgraduate students showed that dynamic capabilities are often described in a very complex and abstract manner. This can be illustrated through the comments received from other postgraduate students who, typically, either hadn't even heard about the approach or thought that it was something really abstract which could not be easily explained. However, the researcher soon decided that one of this study's targets would be to provide concrete examples about how dynamic capabilities take place in 'real life' and particularly in international growth in SMEs. In the empirical part of the study this is done through describing critical events behind SMEs' international

growth and analysing them through the framework built in the theoretical part of the study (see Chapter 2.5). A major challenge in the research process was to decide how to measure or define dynamic capabilities and their role in international growth. To date, dynamic capabilities studies have often been conceptual, although recently some quantitative studies have tried to operationalise the approach (e.g. Alsos et al. 2007, Macher and Mowery 2009). However, as the systematic review of the dynamic capabilities literature demonstrates (see Barreto 2010, 265–269) there is still a lack of qualitative studies in the field of dynamic capabilities, especially in the context of international business. Consequently, the researcher decided to follow a qualitative route in this study. This required that he had to find a 'tool' to guide the data analysis. This was found by combining and modifying the findings of several recently published studies (e.g. Alsos et al. 2007; Teece 2007) to form the classification. Empirical data gathered for the study were then analysed qualitatively based on this classification. However, qualitative methods have their own advantages and disadvantages. For example, Miles (1983, 119) states that *"the most serious and central difficulty in the use of qualitative data is that methods of analysis are not well formulated"* and continues (p.122) that *"It is fair to say that by the best of current standards analysis of qualitative data is a mysterious, half-formulated art."* Indeed, qualitative data analysis can be challenging, because analysis runs in parallel with data collection and guides it in new directions (Stake 1995, 71–72; Dubois and Gadde 2002). Moreover, the researcher himself is a key instrument in data collection and analysis as well as in the concluding phases of the study (see Bonoma 1985, 204). Therefore, it is important to acknowledge that although this dissertation presents the main phases and actions in the data analysis, the process also comprised enormous amounts of implicit mental activity. However, despite the challenges of qualitative data analysis, several features in this study were more suited to the use of the qualitative approach. Firstly, a large data-based survey is not recommended when the objective is deep understanding of a complex issue (Jobber 1991) or the mechanism of change (Gummesson 1991, see also Calof and Beamish 1995 and Hurmerinta-Peltomäki 2001). This is the case in this study. Dynamic capabilities and their relationship with chosen processes in the context of international growth in SMEs is a complex and multilevel phenomenon which is closely connected to changes emerging from the business environment. In this research setting, relying solely on quantitative methods might lead to a mechanical examination of the processes of decision-making, implementation and change and lead to misunderstandings (see e.g. Hurmerinta-Peltomäki 2001). This risk is increased by the fact that the quantitative operationalisation of dynamic capabilities is still at a relatively unsophisticated level.

Case study is a research methodology that focuses on understanding the dynamics present in a management situation (Eisenhardt 1989). The focus on the richness and depth of the event exemplified in case study methodology allows for the "opening up" of new ideas and the interpretations of the phenomena being researched (Christie et al. 2000). As Yin (1993) suggests, the case study is appropriate when researchers desire is to define topics broadly not narrowly.

Case study research reveals a particular event in a real life context (Eisenhardt 1989; Merriam 1988). The investigation of a particular event is significant when boundaries between phenomenon and context are not clear (Yin 1981). The realist research methodology of qualitative case studies is process oriented and does not deal with cause and effect relations, but with underlying causal tendencies (Bhaskar 1978; Tsoukas 1989). Case studies also support the development of an understanding of process and contextual phenomena, such as organisational behaviour (Bonoma 1985). In addition, Ambrosini and Bowman (2009, 37) suggest that, when the study aims to understand the subtlety of resource creation and regeneration processes, smaller qualitative sample studies are likely to be more appropriate than quantitative studies involving large, statistically valid sample sizes. Therefore, understanding firm-specific contexts and resources, as well as how resources are renewed, requires qualitative investigation. Consequently, it seemed more reasonable to explore a few international growth related processes in SMEs in enough depth to enable logical and insightful conclusions to be made rather than to try to capture aggregate frequencies of variables.

In this study, 'case' as a term is used when it is found to be natural. Although case mainly refers to the critical incident recognised as playing a major role behind a studied firm's international growth, there are also situations when the term can refer to the studied firm in general. In other words, in this study's analysis phase there were situations when, for example, a firm's history and studied critical incident were so intertwined that separating them did not feel rational. An illustration of this is the case where a firm's recent international growth was based on the establishment of a new sales office in Sweden. However, the seeds of the operation were sown a decade earlier and it is therefore important to also observe the role of management's relationships and previous experiences beyond the boundaries of the critical incident.

Case-study research should not be thought of as a specific method, but more as a strategy, which could include the use of different kinds of methods for obtaining data (Stake 2000; Ghauri 2004). Consequently, there are alternative ways of doing case-study research and a researcher's choices are influenced by the study's philosophical and disciplinary background, its purpose, the

nature of the research questions and the research design, including the number of cases to be researched (Eriksson and Kovalainen 2008). An example of the relationship of the research questions with the researcher's methodological choices can be seen in Töttö's (2000) suggestion where he states that the form of the research question defines whether the study should lean on qualitative or quantitative research. According to Töttö, if the researcher wants to depict phenomenon, 'what' is an essential question to start with. Furthermore, he states that 'what' as a research question is often related to descriptive[11] studies. On the other hand, he also suggests that 'how' questions often refer to explanatory[12] studies. So, according Töttö (2000) it is the research question which often defines whether the study is descriptive or explanatory. In fact, research questions in general often set the framework within which the methodological choice is done (Denzin and Lincoln 2003, Silverman 2003) and traditionally case studies were considered appropriate only for explanatory research (Yin 1989). However, Yin (ibid) points out that some of the most famous case studies have been both descriptive and explanatory. Indeed, it is argued that distinguishing studies between these two (descriptive and explanatory studies) extremes alone would be a rather constrained decision. As Miles and Huberman (1994) put it: *"usually it is hard to explain something satisfactorily until you understand just what the something is."* This study supports this line of thought and the reader can identify features from explanatory as well as descriptive approaches in the empirical part of the study.

From the methodological perspective, the study's main challenges related to the different nature of the methods and concepts it utilised. However, this study's use of post-positivistic philosophy, reduces the significance of the problem. In fact, critical realists often adopt a research logic based on abduction, an approach to knowledge production that occupies the middle ground between induction and deduction (Peirce 1903; Kirkeby 1990, Coffey and Atkinson 1996; Järvensivu and Törnroos 2010). Unlike induction, abduction accepts existing theory, which might increase the theoretical strength of case analysis. Abduction also allows for a less theory-driven research process than deduction, thereby enabling data-driven theory generation (Järvensivu and Törnroos 2010). However, it is not enough just to state that a research process is abductive. Researchers have an obligation to state in what way the process is abductive. According Järvensivu and Törnroos (2010, 102) differences in abduction can be identified from different phases of the research

[11] According to Bernard (1988) *description* means "making complicated things understandable by reducing them to their component parts."

[12] According to Bernard (1988) *explanation* means "making complicated things understandable by showing how their component parts fit together according to some rules (i.e. theories)."

process. In some phases, the researcher's logic may follow abduction in a pure sense; in other phases, the reasoning may lean more toward induction or deduction. However, the whole process can be classified as abductive in general. In other words, it is argued that the abductive research process is a mix of inductive, abductive and deductive sub-processes where different phases of the study emphasise different approaches. This is also the case with this study. For example the data-analysis phase of the study has characteristics of deductive approaches (the methods used for data coding) as well as inductive reasoning approaches (the retrospective narratives).

After the researcher had made the decision to rely on qualitative case methods in the study, it was time to start the data collection. In-depth interviews formed the primary data source of the study because studying the international growth processes of SMEs properly would not have been possible by relying mainly on structured telephone interviews and secondary sources. Although structured telephone interviews, newspaper and magazine articles and financial statements provided lots of information about studied SMEs, the most detailed information concerning influential incidents behind the international growth in the studied firms was gathered from in-depth interviews. In addition, the researcher collected secondary data from the studied firms between the years 2007 and 2010. Financial statements, websites and different newspapers, magazines and journals were followed regularly to see if firms were facing radical changes.

The rough timeline of the progression of the data collection for the study is shown in Figure 4.

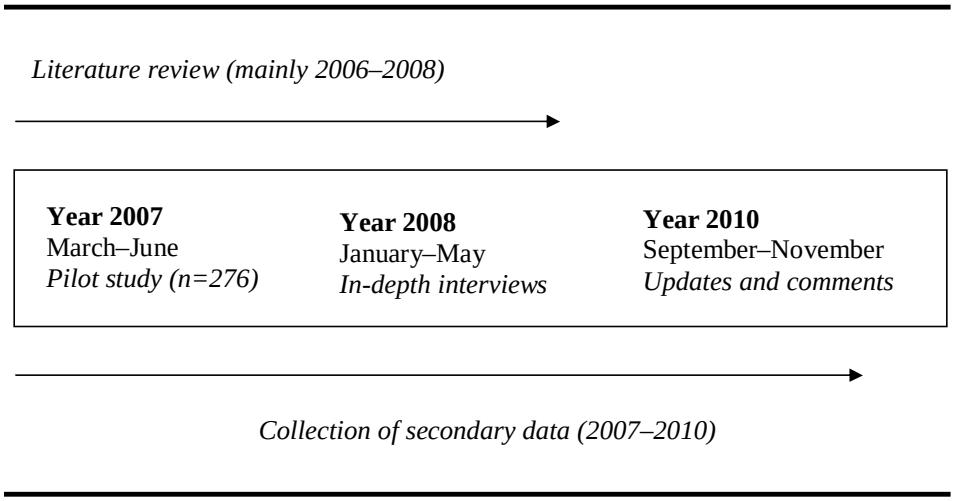

Figure 4 Timeline of the study's data collection

The researcher also had access to the research data gathered by telephone interviews in 2004. These interviews focused on studying growth in Finnish SMEs from different angles and the data included answers from approximately 500 firms. Although the data gathered in 2004 played an important role, especially during the firm selection phase, these telephone interviews are not included in Figure 4 because they were conducted before the start of the dissertation project.

A pilot study for the dissertation was started in 2007, when new telephone interviews were conducted among the SMEs that had participated in the 2004 interviews. The role of these new interviews was to increase the researcher's general understanding about international growth in Finnish SMEs and to guide the selection of firms studied further in this dissertation. The case selection is introduced in detail in Chapter 3.4, and data analysis, which mainly took place during the years 2009 and 2010, is discussed in Chapter 3.6.

Case descriptions, including some defining questions, were sent to the studied firms by email in autumn 2010. The motive for this update was to make the study more current. This was important, because it was probable that the studied firms had faced significant changes during the global recession in 2008 and 2009. Comments and updates were received from at least one manager from each firm. Some of these were received by phone, some by email and in two firms personal interviews were also conducted. The next chapters of the study describe the different phases of the research process more closely.

3.3 Pilot study

The research data for the pilot study were collected from Finnish SMEs in 2004 and 2007. The sampling frame included the Statistics Finland register covering contact information on all SMEs in Finland. The selection of firms was based on stratified random sampling. In both years, data were collected through computer-aided telephone interviews. The aim was, firstly, to reach the owner-manager still working in the firm, or, secondly, another owner (e.g. a Member of the Board). If neither could be reached, then an attempt was made to interview somebody from the management (e.g. CEO, sales director, etc.).

Data from 2004 included 498 firms (response rate 38%) covering all industries in Finland. Telephone interviews conducted in 2007 were based on the sample of firms from 2004, of which 276 responded (response rate 55%). Of those who responded in the first interviewing round in 2004, 102 refused to participate in the follow-up. The rest (120 firms) had either ended their business operations, or could not be reached by phone despite multiple attempts.

Some modifications to the mainly structured interview form were made after the first round of telephone interviews in order to provide answers to questions that the earlier form could not answer. Chi-square test and Student's *t*-tests were conducted in order to check for non-response bias, and they showed no statistically significant differences between those who responded and those who did not respond in terms of revenue, number of employees or sectoral distribution. However, age distribution was slightly skewed towards older enterprises in the follow-up interviews.

The basic characteristics of the SMEs participating in both telephone interview rounds are represented in Table 4. The revenue ranged from zero to approximately 100 million euros, the median being two million euros in 2003. At the time of the follow-up interview the minimum revenue was zero euros, the maximum being over 450 million euros. The data included one-person businesses as well as firms employing hundreds of people. The median number of employees was 15 in 2003 and 17 in 2006. The oldest firms were established well before the 20th century, whereas the data included a number of start-ups as well. In the year 2007, the age median of firms was 15 years.

Table 4 Basic information on the firms

	Mean	*Median*	*SD*	*Min*	*Max*	*N*
Age in 2007 (first established)	31.6	24.0	31.7	4	357	274
Age in 2007 (current owners)	21.6	15.0	19.8	3	156	273
Revenue in 2003, million €	7.2	2.0	13.6	0.0	100	256
Revenue in 2006, million €	10.3	2.2	33.0	0.0	460	265
Full-time employees in 2003	46.8	15.0	63.1	0.0	500	260
Full-time employees in 2006	61.3	17.3	160.6	1.0	2400	264

The results of the two telephone interview rounds were compared, which provided an opportunity to study the possible short-term changes that had occurred within the firms during the period 2003–2006. In addition, the data provided an opportunity to study the role of international operations among the studied SMEs. However, at this point, some limitations were made and micro-sized firms (revenue less than 200,000 euros (e.g. hairdressers, leaf market and driving schools) were excluded from the data. Additionally, some firms did not provide an answer to the questions related to their international activities or their revenue, so they had to be excluded due to missing data. Eventually, 152 SMEs were left for the pilot study. The main findings of the pilot study are presented in Chapter 2.2 (see also Paavilainen and Kuuluvainen 2008 a and b).

From the viewpoint of this study, the most interesting changes SMEs faced during the research period were related to their revenues, the number of personnel and the share of international operations when compared to the total revenue of the firm. On the basis of this comparison, some firms were chosen to be researched further in this study. This selection process is introduced in the next chapter.

3.4 Firm selection process

The selection of firms for closer inspection was a multilevel process which is illustrated in this chapter of the study. The selection process relied on the logic stating that representativeness is not the criterion for case selection, and purposeful sampling (instead of random sampling) was used (Stake 1995; Eisenhardt 1989). One of the main aims during the selection process was to

find information-rich cases matching the conceptual framework of the study (see e.g. Patton 1990). In the context of the study this meant that the firms studied more closely had to have recent growth in international markets. This was expected to increase the probability of finding good examples concerning the role of dynamic capabilities in this development. This choice is supported by Helfat et al. (2007, 15) who suggest that there are two performance measures that can be applied to dynamic capabilities: survival and growth. Survival provides a clear measure of whether a firm can adapt to its external environment even at some minimally satisfactory level. However, survival does not tell us much about how well a firm is surviving, only the length of its history. In other words, the measure does not indicate whether the firm faced significant changes during its recent history. One example of the weakness of using only survival as a performance measure is noted by Helfat et al. (2007, 16) who state that some long-established firms (e.g. airlines) continue to survive in states of near permanent failure by regularly gaining public support. However, these 'failing survivors' do not usually grow on any meaningful dimension and although some dynamic capabilities might be identified in these firms, because sometimes dynamic capabilities enable established firms to adapt to changing environments and maintain their size rather than grow (Helfat et al. 2007, 111), firms that have grown offer better possibilities of finding illustrative examples of dynamic capabilities than firms that have not grown at all. There are several justifications for this. For example, firm growth presupposes survival and relies on increased organisational size over time which is a clear sign that changes have taken place in the firm. This study focuses on international growth as a dimension of firm growth.

Criteria guiding the firm selection process in the study can be summarised in two major points. First, a firm is seen as international when either 25% or 500,000 euros of its total revenue is reportedly coming from international operations. The figures used are based mainly on common sense because previous literature has not provided unambiguous descriptions for a firm's degree of internationalisation (i.e. when the firm is international and when it is not). If international operations provide as much as 25% of a firm's revenue, it can be assumed that international business is significant for the firm. Furthermore, 25% of total revenue derived from foreign markets is the same share used by Knight and Cavusgil (1996) in their born globals study. However, the temporal criterion (25% foreign sales within three years of the venture's birth) of Knight and Cavusgil (ibid) is omitted from the study because the focus is on more mature firms. The percentage criterion is also in line with the suggestion of Gankema et al. (2000, 17) who stated that SMEs that make a systematic effort to increase their sales through exporting to multiple countries demonstrate an export-to-sales ratio of 10 to 39 per cent. In addition, the intensity of

a firm's international operations is measured through the percentage share of total sales, by for example Zahra et al. (1997) and Preece et al. (1999). Furthermore, it was assumed that 500,000 euros is such a significant amount of capital for an SME that it must have some strategic importance for the firm. Second, international growth is observed when the share of international operations from revenue grew between 2003 and 2006. In the study, the figures needed for calculating this ratio were obtained from the telephone interviews.

To summarise, this study understands international growth as an increase in the share of revenue a firm receives from international markets. A similar measure was used by, for example, Dhanaraj and Beamish (2003) who called the measure export intensity. However, an increased share of international operations from a firm's revenue does not necessarily mean that the firm's total revenue would have also grown. Therefore, it was necessary that the total revenue of case-study candidates also increased between 2003 and 2006. Because revenue is the most common measure in firm growth and is straightforward to compute, the choice of measurement is seen to increase the comparativeness of the results (Helfat et al. 2007, 103–111).

The exclusion of firms to be further studied from the sample of 276 took place in several phases. In the first phase, firms were classified into three groups based on whether they had reported international operations for the accounting year 2003 and/or 2006. Following the description and requirements for international growth (introduced above), the researcher decided to include only those firms that had reported international operations and growth during the research period of the study. Firms that did not report any international operations in years 2003 and 2006 were excluded. In addition, firms whose international operations had decreased during the research period were excluded. Some firms were also excluded due to missing data. After these limitations, 44 potential firms were left from the original number of 276 firms that responded in the second telephone interview round. These firms constituted this study's pool of firms with international growth.

In the second limitation phase, only firms whose share of international operations from revenue was at least 25% or 500,000 euros, either in 2003 or 2006, were kept in the study. As a result of this limitation phase, 22 potential firms were left in the sample. Next, SMEs whose share of international operations had decreased in euros (i.e. monetary value; in the first limitation phase all these firms had gained international growth when measured with percentages) were excluded. As a consequence, 19 firms were left. This limitation was done because the study was aiming to study international growth, not the decrease of international growth.

The third limitation phase relied on Standard Industry Classification (SIC) codes. During this phase the distribution of candidates between industries was studied and how representative these distributions were when compared to the entire sample (n=276). The industrial distribution of the total sample is presented in Table 5[13]. The industrial classification is based on the classification of Statistics Finland.

Table 5 Industrial distribution (n=276)

Manufacturing	26.9%
Services[14]	24.4%
Trade	16.0%
Construction	15.6%
Transportation, storage and communication	7.6%
Others	5.5%
Hotels and restaurants	3.9%

In this phase, the industrial distribution of candidate firms was studied. The clear majority (16 firms) operate in the manufacturing industry whereas only two firms operate in the service sector. In addition, one firm operates in the trade sector. This distribution follows the distribution of all the research data due the fact that the majority of the sample's firms operate in manufacturing industries. The Finnish service sector has traditionally operated only in the domestic market and that partly explains the significant difference between the number of manufacturing and service firms among potential candidates for closer research.

On the basis of the industry-based comparison, it was decided to exclude industries other than manufacturing from this study. This reduced the risk that some industry-related factors would skew the results.[15] It can be assumed that firms operating in the manufacturing industry invest in factors such as product development and organisational innovativeness, which provides good opportunities to identify concrete examples of the role of dynamic capabilities in international growth in SMEs. This is particularly the case when studying underpinning processes such as resource acquisition and reconfiguration

13 Since results are rounded, the total percentage in table is only 99.9%.

14 Service sector includes real estate, renting and business activities, health and social work and other community, social and personal service activities.

15 For example, macro-level changes (e.g. economical, political or juridical) which may have a remarkable influence on one particular industry.

processes which would have been much more challenging to describe and identify if the study had focused on SMEs operating in the service sector. The other side of the coin is that focusing on just one particular industry may limit the generalisation of results outside manufacturing firms.

As a result of the industry-based limitation, 16 manufacturing SMEs were left for closer inspection. All 16 firms had grown internationally between 2003 and 2006 (measured from monetary and percentage angles) and they surpassed the limits that the researcher had set for international growth because the share of international operations from revenue was at least 25% and 500,000 euros.

In the fourth limitation phase it was noticed that in telephone interviews three of the 16 firms had declared that they did not want to participate in any ensuing surveys/interviews. Consequently, 13 firms were left. At this point, the financial statements of these firms were ordered from the National Board of Patents and Registration and databases (Amadeus, Voitto CD) were utilised when the financial statements were gathered. However, some of these statements were not available. In addition, some potential firms were operating in cities which are very difficult to reach by transport. Therefore, for economic reasons, these 13 firms were also observed from the perspective of informational and economic factors. Consequently, the selection of the final firms to be studied further was also influenced by pragmatic considerations (see e.g. Eriksson and Kovalainen 2008).

After numerous contacts and lots of travelling, the researcher managed to get interviews with managers/entrepreneurs of five firms. Case firms were promised anonymity (supported e.g. by Alasuutari 1994) because presentation of these firms by name will not increase the value of the results, and the researcher is not able to predict the publicity of the final work. Consequently, in the empirical part of this study, firms are given descriptive names that characterise either their core products or the industries they represent. In addition, some exact figures are rounded and the definitions of some products or services are expressed at a more abstract level. The guarantee of anonymity seemed to have a positive effect on the interviews and interviewees were quite open about the course of events in their firms.

Unfortunately, one firm which had an in-depth interview had to be excluded from the study because it was found that the firm had provided incorrect information in the second round of telephone interviews. Therefore, four SMEs were left to be researched in more detail in the study. From these firms, critical events (i.e. cases) that had a significant influence on the firms' international growth were identified. In general, critical events can arise from personnel changes, changes in organisational structure, changes in business strategies or from acquisition, bankruptcies or partner-switching. They may also arise from the overall business environment and include changes in

technology, industrial structure and economic recession (Mainela 2002). The approach used in this study has similarities to the critical incident technique which is usually used within service-quality research (Flanagan 1954; Voima 2000) and is infrequently adapted to other fields of research (e.g. Chell 1998 in entrepreneurship). The critical incident technique has been used in a number of entrepreneurial and business studies and has gained acceptance as a qualitative method in the field of small business research (Chell and Allman 2003; Perren and Ram 2004). The technique relies on data collection through interviews and permits an examination of events from the entrepreneur's or manager's perspective (Giroux 2009, 172). According Chell (1999, 56) critical incident technique can be defined as *"...a qualitative interview procedure which facilitates the investigation of significant occurrences (events, incidents, processes or issues) identified by the respondent, the way they are managed, and the outcomes in terms of perceived effects. The objective is to gain an understanding of the incident from the perspective if the individual, taking into account the cognitive, affect and behavioural elements"*.

However, rigid adherence to the critical incident technique was considered too structured for the purposes of the research. Rather than asking the participants to select three critical incidents, two positive and one negative, at the beginning of the interview as Chell (1998) recommends, critical events were discussed more informally during the interview. Respondents were first shown a figure demonstrating the firm's international growth development during the last decade. Then they were simply asked what they saw as the most critical event behind the recent growth of the firm. In exploring these events, the role of the researcher during the interview process was not, however, a passive one. Although the identification and initial narration of significant incidents were emergent and participant-driven, naturally taking the form of stories (Gilbert and Morris 1995; Gold et al. 2002), the researcher then played an active role in helping the participants to reflect more deeply on these occurrences by focusing on the roles of opportunity search, resource acquisition and resource reconfiguration processes in the event.

This study's cases took place mainly during the research period (2003–2006) but because processes do not occur in isolation from a firm's history, some other significant events and factors are also referred to in the case descriptions. This is the case, for example, when a firm's motives behind the event are studied. Olsen's Critical Incident Technique (1992), with a process-oriented view that stresses critical episodes in addition to critical acts, focuses on the triggering factor.

The identification of critical events from the studied SMEs' recent international growth was relatively painless. Flanagan (1954, 327) summarises the nature of a critical event in the following way: "*An incident must occur in a*

situation where the purpose of intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effect." In this study, the question concerning the most important event was asked directly during the in-depth interview. The trustworthiness of the answers was then increased through data triangulation.

One critical event behind international growth is analysed from each of the interviewed SMEs. This is in line with the recommendation of Eisenhardt (1989) who stated that in a multiple case study the recommendable number of cases varies from four to ten. In summary, according to Perry (1998) the widest accepted range seems to fall between two to four cases as the minimum and 10, 12 or 15 as the maximum. On the other hand, it has also been stated that there are no rules for sample size in qualitative research (Patton 1990; Eriksson and Kovalainen 2008).

Table 6 Key figures of the studied SMEs

	Information Technology Oy	*Aluminum Oy*	*Findows Oy*	*Forestry Oy*
Revenue in 2003, million €	20	15	30	15
Revenue in 2006, million €	35	20	37	27
Employees in 2003	205	139	249	60
Employees in 2006	432	140	303	84
Share of international operations (compared to total revenue) 2003[16]	77%	70%	12%	85%
Share of international operations (compared to total revenue) 2006	97% [17]	98%	25%	90%

Although each studied firm was SME-sized in the year 2003, there are significant differences between firms. One explanation for this is that the manufacturing industry includes several sub-industries. Good examples are the industries of Information Technology Oy (software planning) and Findows Oy (manufacturing of windows). Naturally, these two firms have very different business environments and business logics. Hence, direct comparisons between, for example, the resource configuration processes of Information Technology Oy and those of Findows Oy would not be very useful because the environmental turbulence and pace of change between these industries differs. Information Technology Oy has to make more radical changes in its

16 Shares of international operations from firms' total revenues were obtained from telephone interviews (2004 and 2007) and they are managers' subjective evaluations. However, based on tests conducted with the exact numbers received from secondary data sources (when available), it can be argued that these evaluations are indicative. In other words, when a manager has given a number indicating international growth, the firm really has grown internationally although there might be some margins when compared to 'real' numbers. Therefore, for some SMEs, percentages indicating increase/decrease in the share of international operations from revenue are different when compared to the accurate numbers (checked from official documents when available) presented in Chapter 4.

17 This figure is different to the one calculated from the financial statement of the firm (59%). There is a simple explanation for this. The firm's main customer is a large Finnish corporation which operates globally. Therefore, accounting classifies the business between these two firms as domestic but in practice almost all the machines supplied by Information Technology Oy are delivered to the corporation's international sites. However, in 2007 the figure checked from the financial statement was again 79%.

resource base to be able to continuously introduce new product innovations. At the same time, Findows Oy operates in a traditional and slowly changing industry where new innovations do not play such an important role.

In addition to industrial differences, there are also other significant differences between the studied SMEs. Whereas Aluminum Oy and Findows Oy have long histories (established in the 1940s and 1950s respectively), Information Technology Oy as well as Forestry Oy are much younger firms (established in the 1990s). Furthermore, Information Technology Oy and Findows Oy are much larger employers than the other two firms. It should be noted that Information Technology Oy and Findows Oy grew so much that they were classified as large firms (employing more than 250 people) by the end of the research period. Although international growth is a central issue for the study, it is argued that Findows Oy is clearly less internationalised than the other firms studied. It is also the only firm which declared that its primary markets are still in Finland. There are also significant differences in the general pace of firm growth. When observed through the growth of revenue, younger firms have grown faster than more traditional firms. Information Technology Oy's revenue increased 75% during the research period and Forestry Oy's revenue increased even more (80%). However, Aluminum Oy's revenue increased 33% and Findows Oy's increase was 23%. There are also differences between the ownership structures of the firms. In 2007, Aluminum Oy and Findows Oy were still quite entrepreneurial in that both firms had only five owners whereas Information Technology Oy had hundreds of owners. Forestry Oy was acquired by an investor group during the research period and hence it became a subsidiary of a larger corporation.

The numerous differences between the studied firms makes comparisons between these firms very challenging. As a result, any generalisation of results in a traditional sense (i.e. statistical generalisation, see Yin 1989) is also difficult. However, the cases in this study are not firms themselves but critical events identified as playing a major role in a firm's international growth. There are clear justifications for the choice as international growth in SMEs is a unique path (see e.g. Paavilainen-Mäntymäki 2009) and dynamic capabilities are context-dependent. Assuming each SME has a unique international growth path, the processes underpinning their dynamic capabilities must also take very different forms during international growth in the studied firms. Therefore, analysing four distinct critical events that play significant roles in international growth can enhance our understanding of the roles that dynamic capabilities play in international growth in SMEs. Critical events provide illustrative and concrete examples concerning the relationship between changes in a firm's business environment and actions that the firm has taken to cope with these changes. Identifying the most significant events behind each

firm's international growth during the research period was quite easy although the significance of a 'single' event varied between the studied firms. Therefore, in Forestry Oy and Findows Oy international growth had to be studied as a combination of a couple of events whereas in Information Technology Oy and Aluminum Oy international growth was more related to one specific event. These events are briefly introduced in the following paragraphs. Detailed case descriptions are available in Chapter 4.

In Information Technology Oy, the critical event identified as playing a major role behind international growth in the firm was the acquisition of a US firm. As a consequence of this deal, the firm acquired new technological and human resources as well as an avenue to new geographical markets. Together with capabilities and resources already possessed by the firm, the acquisition increased the firm's innovativeness and competitiveness.

In Aluminum Oy, the Management Buy Out (MBO) deal was a clear trigger for the firm's recent international growth. The firm's employees were frustrated with the very bureaucratic management style of the French parent company which clearly caused ineffectiveness. There was also a real threat that the Finnish factory would have been closed in the near future although it had the potential to be profitable. After the MBO, Aluminum Oy's management understood that the only way to survive was to grow fast. The firm grew by conquering new markets in Scandinavia, while their Swedish competitor was not ready for the Finnish attack, and by returning to the aerosol-package markets as soon as it was possible.

In Findows Oy, the significant event behind its international growth was the establishment of the firm's Swedish sales office and in 2007 about 90 per cent of the firm's exports were coming from the Swedish market. Windows manufacturing is not a very internationalised industry and, among Finnish producers, Findows Oy is the largest exporter. In 2007 it was calculated that about 60 per cent of the windows exported from Finland were manufactured by Findows Oy.

In Forestry Oy, a couple of events were identified as playing a vital role in the firm's rapid international growth. Although in the in-depth interview the firm's sales director stated that the critical event behind the firm's international growth was a change of ownership, in this study it is also suggested that the change only accelerated the international growth development provided by dramatically increased markets. For example, as a consequence of the mechanisation of harvesting, suddenly there were new markets for Forestry Oy's products and the firm's business grew, especially in Russia and Canada. However, afterwards it could be stated that the market growth was only temporary.

Firms studied in this research represent a larger sample of Finnish SMEs and the case descriptions are typical examples of international growth in manufacturing Finnish SMEs in particular. The design of the study is summarised in Figure 5.

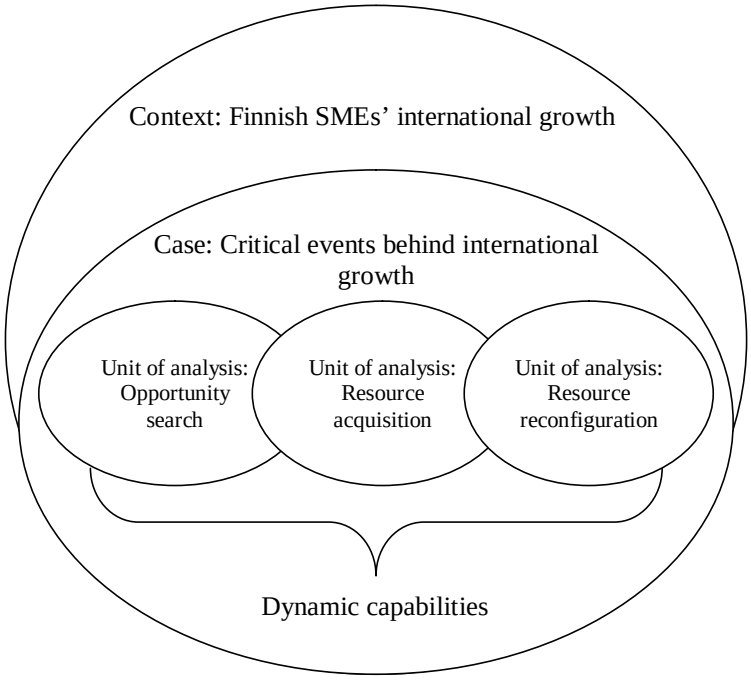

Figure 5 The design of the study (modified from Yin 2003)

According to Yin (1991) the case study can be designed as embedded or holistic. This study is referred to as an embedded case study because it involves more than one unit of analysis. In other words, opportunity search, resource acquisition and resource reconfiguration processes (i.e. processes underpinning dynamic capabilities) are identified and analysed within studied cases. Examples of dynamic capabilities are again identified by studying changes conducted in these processes during the international growth of the firm.

3.5 Data collection

Although there are many ways of collecting research data, even from one specific case (e.g. interviews, documents and observations), interviews are often used as the primary source of data in business research (Eriksson and

Kovalainen 2008). This was also the case with this study and in-depth interviews were conducted in selected firms. There is clear justification for this choice; the challenge in studying dynamic phenomena (such as growth in international markets) is that there is a lack of documentation and the researcher therefore decided that the most efficient way to gain comprehensive and reliable empirical data was to interview knowledgeable people (see e.g. Kumar et al. 1993; Noordhaven 2004). However, secondary sources also played a significant role during the data collection by providing complementary and confirming information concerning events taking place in the studied SMEs.

The reason for gathering data by interviews is that the people who are knowledgeable about the issues in question (e.g. the role of market changes behind a firm's international growth) have the opportunity to discuss its relevant aspects and, in addition, they bring their own insight into play (Yin 1991). Contact with the interviewee is very direct and interactive which means that gathering data is flexible and can easily be used to cover issues beyond the original framework (King 1994; Hirsjärvi et al. 2001). However, interviews can be quite expensive (Daniels and Cannice 2004) and set certain requirements for the interviewer, as he/she is often also the one drawing conclusions based on the discussions (Hirsjärvi et al. 2001).

In this study, the people interviewed represented top management (i.e. key decision-makers) of the studied firms. These managers are considered key informants because dynamic capabilities and international growth reflect firm-level strategy, which is based on their decisions. So, top managers clearly play an important role in the development of dynamic capabilities and it is vital that we place managers at the centre of the discussion on dynamic capabilities (e.g. Rindova and Kotha 2001, 1274; Ambrosini et al. 2009). In particular, managers' perceptions of environmental dynamism (i.e. opportunity search processes) are often considered prerequisites for the other two processes identified as underlying dynamic capabilities (i.e. resource acquisition and resource reconfiguration) (e.g. Teece 2007). Effective utilisation and orchestration of a firm's resources, in order to achieve new combinations and co-alignments, are central to the dynamic capabilities framework. Such orchestration requires astute decision-making and entrepreneurial capacity. Furthermore, because distinctions between the functions of entrepreneurs and managers are fading (Augier and Teece 2009), and once the process of forming a new business is achieved, the role of the new entrepreneur and the role of managers in the firm's success morph considerably. Consequently, although the research data included answers from both entrepreneurs and managers, it is not seen as a problem because each firm that participated in the study was at least ten years old and had therefore already overcome the first challenges relating to the start

of the firm. Therefore, the role of entrepreneur had already started to become closer to the role of manager. As a consequence, from the viewpoint of the manager versus the entrepreneur, not too much attention was given to the titles of interviewees.

As already mentioned, the data collection used several different interview methods: structured telephone interviews, in-depth (theme) interviews and open-ended email/ telephone interviews. First, structured telephone interviews were conducted as part of a larger research project focusing on different dimensions of firm growth. These interviews took place in 2004 and 2007 and it is estimated that the average length of each interview was approximately 45 minutes. The researcher had a chance to influence only the structure and content of latter telephone interviews which were a follow-up to the interviews done in 2004. He also had access to the database of former interviews (see Chapter 3.3). Although the role of the telephone interviews was primarily to assist the researcher in finding interesting firms for closer inspection, they also offered background information and complemented the information gathered by the in-depth interviews. The telephone interviews are described in Table 7.

Table 7 Case firms and telephone interviews

Case firm	*Respondent's title (2004)*	*Respondent's title (2007)*	*Same respondent in both telephone interviews?*
Information Technology Oy	CEO	CEO	Yes
Aluminum Oy	Financial and Administrative Director	Financial and Administrative Director	Yes
Findows Oy	CEO	Sales Director	No
Forestry Oy	Entrepreneur	Purchasing Manager	No

In-depth interviews were conducted in each firm during the spring of 2008. Due to the size of the studied firms (SMEs), it was assumed that this type of firm is often less complex than large firms and provides the opportunity to gather information from someone with (close to) full knowledge of the firm and its operations (Autio et al. 2000; Sørensen and Stuart 2000). Consequently, in-depth interviews were conducted with interviewees representing top management of the studied SMEs. The time schedule for these interviews is given below (Table 8). Transcriptions of interviews were produced soon after the interview (on average, a week after the event).

Table 8 The time schedule for in-depth interviews

Firm	*Date of the interview*	*Length of the interview*	*Place of the interview*	*Title of the interviewed person*	*Was the same person interviewed previously by telephone?*
Information Technology Oy	23.1.2008	1 hour 47 minutes	In a meeting room at the hotel	Director of Personnel	No
Aluminum Oy	5.5.2008	1 hour 21 minutes	In the firm's office	Financial- and administrative Director	Yes
Findows Oy	26.3.2008	56 minutes	In the firm's office	Sales Director	Yes (in 2007)
Forestry Oy	9.4.2008	46 minutes (+ tour in the factory, about 15 minutes)	In the firm's office	Sales Director	No

The technique used in in-depth interviewing was a tandem interview. The idea of the tandem interview is that using more than one interviewer per respondent might improve the quality of information obtained in the personal interview (Kincaid and Bright 1957). Interviews were conducted by a man-woman team, both of whom were professional researchers. Interviews were also recorded by both team members, with the permission of the interviewee. During the interview, both interviewers asked questions. In addition, one researcher also presented figures that described the firm's international growth from 1997 to 2006. The figures were gathered from telephone interviews and secondary sources (e.g. financial reports and internet sources). The aim of using these figures was to motivate the interviewee to provide information concerning periods when international growth had rapidly increased. In other words, the target was to find out what had led to these growth periods. In this study the focus was on recent international growth in the firm and therefore events which took place between 2003 and 2006 were emphasised during the interviews.

Finally, in 2010 the case descriptions were sent to managers (or former managers) who were supposed to have their own views concerning how the studied events took place. Before this, the researcher had studied recent changes which had taken place in the studied SMEs by going through

secondary data (articles, financial statements) focusing on events which had taken place between 2008 and 2010. This was important because it was obvious that managers would also refer to recent events during the update/comment phase of the study.

The researcher chose three or four managers from each studied firm to be contacted by email. About half of these promised to give their comments and, as a consequence, some minor additions and changes were made to the case descriptions. Answers were received mainly by email, but in some cases the researcher also called the respondents, and in two firms the researcher conducted personal interviews because that was the interviewee's wish (Table 9). The data gathered in 2010 helped the researcher to increase the study's topicality and, as a consequence, the study is able to show what happened to the studied firms after the global recession.

Table 9 Updates and comments in autumn 2010

Firm	*Commentators (Autumn 2010)*
Information Technology Oy	- Former Vice President (by email) - Former Director of Personnel (by telephone)
Aluminum Oy	- Production Director (by email) - Deputy Managing Director (by telephone) - Member of the Board (personal interview)
Findows Oy	- CEO (by email) - Chairman of the Board; former CEO (by telephone)
Forestry Oy	- CEO (personal interview)

Although in-depth interviews were the most essential data source for the study, other sources should also be acknowledged. For example, telephone interviews provided useful background information from the studied firms and secondary data sources triangulated the findings made during in-depth interviews. The researcher was also able to find a lot of specific information from different secondary sources. The secondary data included company web pages, published firm material and press releases, readily available data from statistical and other databases[18], SMEs' financial statements from the last ten years and news reports from Finnish and international trade journals,

[18] For example, Amadeus (Analyse Major Databases for European Sources) and Voitto+ CD (a CD-ROM published by Suomen Asiakastieto, containing statistical financial data about Finnish firms).

magazines and newspapers. Altogether, almost 30 different newspapers, magazines and websites were utilised when the case descriptions were created. These secondary sources are introduced in more detail at the end of the study (see Data Sources).

3.6 Data analysis

The analysis of the research material included several phases:

First, before the in-depth interviews, information from each selected firm was collected through telephone interviews and from secondary data sources (articles, websites, financial statements etc.), and case records were created. Later, the transcribed in-depth interviews were combined into the case records. The researcher started his actual analysis by reorganising the text provided by the detailed transcriptions of the interviews. This reorganisation was done chronologically from the viewpoint of firm growth. As a result, the researcher illustrated growth development for each firm. This was done because longitudinal (in this case mainly retrospective) data are easier to analyse when arranged in chronological order (e.g. Van de Ven et al. 1989; Halinen and Törnroos 1995, 506). Next, all newspaper and magazine articles, financial statements, websites and other secondary data sources as well as telephone interviews collected from studied firms were re-read very carefully. At the same time, some new findings were added to the descriptions of the growth processes. As a result of this first phase of analysis, the researcher had created relatively detailed descriptions of the growth processes of each of the four SMEs chosen for further study through case-study methods.

However, this study focuses on the international dimension of firm growth. Therefore, the researcher read his descriptions of growth processes carefully and separated sentences referring to international business and growth by internationalisation. He was then able to create chronological descriptions of each firm's international growth. After that, the original interviews were read through again to find out whether there was anything important missing from the descriptions. At this point, some minor additions to these descriptions were made. Because the study is more interested in recent international growth in the studied SMEs, the emphasis was on events identified as influencing the firm's international growth during the research period. However, the time criterion was followed only loosely since the seeds for some events were sown before the year 2003. This could also be called within-case analyses of the data gathered from interviews and secondary sources because, although narratives are not the focal point of the study, the data were organised into descriptive retrospective narratives of each studied firm (Eisenhardt 1989,

Miles and Huberman 1994, Yin 1994). It was important to build an extensive picture of SMEs' long-term growth development since evolutionary economics (underpinning much of the logic of dynamic capabilities) understands a firm's evolution and change as a non-random and history-dependent phenomenon (Helfat et al. 2007). As a consequence, in order to study the role of dynamic capabilities in a firm's recent international growth it was essential to first understand the historical development of the firm (see Chapter 2.3.2). However, as already mentioned, it was decided to emphasise recent events that were identified as critical to the international growth of the studied SMEs. This focus made it possible to build more detailed descriptions of these events, that is, case studies. These case descriptions are introduced in Chapter 4.

After describing the critical events, they were analysed through three chosen processes that underpin dynamic capabilities. This analysis of critical events followed the changes 'backwards', going to the events that created and were playing a major part in the firm's international growth. This can be illustrated through the case of Information Technology Oy where the acquisition (critical event) provided access to the new technological resources and geographical markets necessary to ensure the firm's competitiveness and growth during the industry's hyper-competition. Dynamic capabilities come alive in processes that illustrate the actions of SMEs in reaction to the changes that have emerged in their business environments.

In this study, because of the large amount of data, data analysis required coding. In case-study research, pre-planned systematic coding is often used when the study is grounded in existing theory, and it attempts to improve the theory (e.g. Yin 2002; Eriksson and Kovalainen 2008). Coding (often called data reduction) means that the features, issues and themes in the empirical data are classified and given a specific label, a code (e.g. Miles and Huberman 1994). As a result of coding, research data are often divided into thematic or conceptual categories which can also include subcategories (Shank 2002). In this research, these thematic categories were the same as the processes underpinning dynamic capabilities that were selected to be researched in this study. Table 10 shows the content of each theme (i.e. examples of the operational capabilities comprising the theme) in the light of the findings made during the literature review.

Table 10 Findings of the earlier literature on dynamic capabilities guiding data coding of the study (modified from Madsen 2010)

Process	*Finding*	*References*
1. Opportunity search	Ability to scan the environment to evaluate the markets and competitors	Teece et al. (1997), Coh et al. (2005), Zollo & Winter (2002), Lee et al. (2002)
	Idea generation capability	McKelvie & Davidsson (2006)
	Understanding latent demand and the structural evolution of industries, markets, and supplier and competitor responses	Teece (2007)
	Externally and internally perceived changes	Ambrosini et al. (2009)
	Willingness to adopt and upgrade 'best practice' business processes (benchmarking)	Teece et al. (1997), Eisenhardt & Martin (2000), Teece (2007)
	Strategic decision-making routines (management)	Teece et al. (1997), Eisenhardt & Martin (2000)
2. Resource acquisition	Recruitment of managers and expertise	Rindova & Taylor (2002)
	Knowledge acquisition	Grant (1996), Verona & Ravasi (2003)
	Access to tangible resources provides ability to invest in dynamic capability development	McKelvie & Davidsson (2009)
	Alliance and resource acquisition routines and capabilities	Eisenhardt & Martin (2000), Borch & Madsen (2007)
	External coordination and integration (collaboration)	Teece et al. (1997)
	Gain and release of resources	Eisenhardt & Martin (2000)
3. Resource reconfiguration	Patching (add, combine and split)	Eisenhardt & Martin (2000)
	Product and process development routines and capabilities	Eisenhardt & Martin (2000), Danneels (2002), Zollo & Winter (2002), Zott (2003), McKelvie & Davidsson (2006)
	Development of specialised offerings	Coh et al. (2006)
	Internal coordination and integration	Teece et al. (1997)
	Knowledge reconfiguration	Verona & Ravasi (2003)
	New process development capability	McKelvie & Davidsson (2006)

The findings of previous literature on dynamic capabilities are often very abstract, and in order to decrease the risk of misunderstandings, it was decided

to make these processes more concrete (Table 11), making coding of the data easier. At this point, the researcher had already formed a picture of international growth in the studied SMEs. This had an influence on the researcher's selections concerning which change-related themes were chosen to represent opportunity search, resource acquisition and resource reconfiguration processes. Therefore, at this point the data were also allowed to 'speak' and the researcher suspected that these operationalised themes were playing important parts in the international growth processes of the studied SMEs

Table 11 Operationalised themes to guide the data analysis

Classification/meta-theme	*Themes*
Opportunity search	Continuous search of new development ideas
	Continuous collection of market information
	Continuous review of business environment changes and their possible effects
Resource acquisition	Investments in human resources
	Investments in technology
	Increase in financing
Resource reconfiguration	Launch of new products and services
	Product improvements and modifications
	Process improvements

In the next phase of analysis, the researcher went through the interview transcripts and secondary sources several times and underlined with different coloured markers the three different thematic categories according to Table 11. However, it should be underlined that the purpose of these themes was to guide the identification of organisational processes that again would offer an opportunity to find examples of the role of dynamic capabilities in the international growth of SMEs. In other words, it was not assumed that these operationalised themes would present dynamic capabilities as such, but at this point of the analysis process, the key idea was to reveal the operational capabilities within the firms studied. The data coding utilised colour codes so that each studied meta-theme was assigned its own colour. Sentences referring

to opportunity search were marked with red, sentences referring to resource acquisition with blue and sentences referring to resource reconfiguration with green. While coding the data, the researcher used common sense when something that seemed to be important from the perspective of international growth did not directly match any of the pre-planned codes. In these cases, the findings were included in the themes closest to the findings. Table 12 provides some examples concerning sentences that were coded under each meta-theme.

Table 12 Examples from the data coding

Meta-theme	Examples
Opportunity search	*In our business you just have to go for acquisitions or someone will buy you. It's the economies of scale. If you have only a limited number of large clients, they have only a limited amount of money to use for the R&D of certain measurement products. Well, that money feeds only a certain number of companies and when your market is not growing anymore you have two alternatives; either to buy other companies or go broke. It is as simple as that.* (Director of Personnel, Information Technology Oy) *We have this annual method where we evaluate the development of markets, competitors, new product innovations and law changes. We have to have a very clear picture of what will happen during the next two or three years and quite a clear picture of what will happen after five years. If we think about producing a new machine, it will take about two to three years and if we want to go to a certain new market area it will take about three to four years before it really starts to operate.* (Sales Director, Forestry Oy)
Resource acquisition	*Our global clients want to ensure that they will get their raw materials also in the future. They are surprisingly willing to fund our investments. Of course we have to pay them back but this is clearly an easier way to gather capital than dealing with the bank. This also increases the involvement of the client.* (Financial and Administrative Director, Aluminum Oy) *It is necessary to grow. We have invested in organic growth and aimed to accelerate the birth of new products that way. Recruiting new talents is not easy and the limits of organic growth are on the horizon. Hence, we have added acquisitions into our tool box.*(CEO, Information Technology Oy)
Resource reconfiguration	*For some reason this company has always developed and modernised technology. However, other companies do not want to do that because today the general practice is to focus on manufacturing and let the others do machines. We have tried to be self-supporting and that's our strength which made it possible for us to be successful in this game. Our know-how is developed during the years and it has a long history*.(Deputy managing director, Aluminum Oy) *We used to laugh that it is good that our clients do not know that it is 'impossible' to do this (measurements with software) because we have been doing it already for many years. Our competitors used to argue that it cannot be done and they were relying on electronics.* (Director of Personnel, Information Technology Oy)

After the data were coded[19], the researcher focused on writing the raw data into a more readable form. The researcher removed, summarised and rewrote great amounts of text. Having identified the chosen processes (opportunity search, resource acquisition and resource reconfiguration) done, the dynamic capabilities possessed by the firms studied were identified by studying how these processes changed during the international growth of firms. This action was a result of the suggestion made by Zahra et al. (2006, 924) stating that the ability of a firm's managers to implement desired change demonstrates dynamic capabilities However, as a result of context-dependency, separating dynamic capabilities from operational capabilities was quite challenging and required a significant amount of trial-and-error in this phase of the research. For example, when the financing capabilities of the studied firms were investigated, it was challenging to decide whether they represent dynamic or operational capabilities. Finally, it was decided that financing illustrated dynamic capabilities possessed by the firm, if the management had been able to modify financing routines significantly to be able to respond to changes in the firm's business environment. This dilemma is also noted by Kay (2010, 1211) who states that what is a dynamic or an operating capability depends on context. According Kay (ibid) both operating and dynamic capabilities are best defined not in terms of what they are, but what they do, and what they do depends on context. In the analysis phase of the study, ideas provided by Zahra et al. (2006, 921; see Table 14, Table 15, Table 16 and Table 17), were also utilised to improve the readability of the study. The literature indicates that there are three essential elements that can be related to dynamic capabilities studies. These are: 1) the ability to solve a problem (an operational capability), 2) the presence of rapidly changing problems (environmental characteristics) and 3) the ability to change the way the firm solves its problems (a higher-order dynamic capability to alter capabilities). The empirical section of this research aims to pay due attention to each of those three elements.

At this point, also enablers of dynamic capabilities were identified from the cases by following loosely the theoretical findings presented in Chapter 2.3.2. In addition, case-specific examples of dynamic capabilities were brought to a more abstract level to indicate the characteristics that seemed to play a role in the international growth of the studied SMEs. As Ambrosini and Bowman (2009, 44) suggest, although in practice there are differences in the

[19] No specific qualitative-analysis software (e.g. Nvivo or CAQDAS) was used in the analysis. This is justified because the number of cases was limited to four and hence the manual analysis of data was manageable. This manual analysis was important because it ensured the researcher obtained a deep understanding of the research data. In addition, the interpretation of results can never be totally entrusted to computers (Gummesson 2003, 485), especially not when studying complicated phenomena qualitatively, as this study does.

performative aspects of routines, dynamic capabilities might be very similar across firms when the abstraction level is increased. At this point suggestions provided by Eisenhardt (1989)[20] were loosely followed too and cross-case analysis[21] between critical events behind the international growth of studied firms was conducted to reveal similarities between cases. The research strategy utilised at this point of the study could also be termed one of multiple examplars. However, according Denzin (1989) the issue is not so much "analysis" as interpretative synthesis. After "deconstructing" prior conceptions of a particular phenomenon (in this study dynamic capabilities), multiple instances (critical incidents/case firms) are collected, and then inspected carefully to determine their essential elements (i.e. organisational processes/operational capabilities and their change). The elements are then rebuilt into an ordered whole and put back into the natural social context (see the framework in chapter 4.5). Finally, the researcher was able to integrate the analysis from each case and write Chapter 4 of this study.

After the analyses, the contributions of the study and future research paths were written in the report (see Chapter 5). During the analysis it became clear that there are certain challenges in studying processes which had taken place years earlier. A reflection of these challenges is the fact that many of the people who had played a major role in the studied firms at the time the critical incidents emerged had changed their employer and/or were not very cooperative. In addition, the risk that interviewees have mixed up or forgotten some essential details is higher when there is a long time gap between the studied event and the interview. Furthermore, informants might be biased by the current state of the firm or industry and therefore misremember how events took place in the past. In particular, they have a tendency to reframe historical events using modern rhetoric (Ventresca and Mohr 2002). However, as a result of careful data triangulation (and the fact that the time gap between the study and the time that the studied events took place was not very long), it can be stated that this study reached the studied processes with adequate accuracy and the risk of facing these kinds of retrospective biases was decreased.

3.7 Evaluation of the quality of the research

This chapter discusses the quality of the study. Case analysis as a research method has always been criticised, mainly because of its subjectivity (e.g.

---

[20] Particularly Eisenhardt's (1989, 540) "first tactic", advising categories be selected and then searched for within-group similarities coupled with intergroup differences.

[21] The aim of cross-case analysis is to see processes and outcomes across many cases, to understand how they are qualified by local conditions, and hence to develop more sophisticated descriptions and more powerful explanations (Miles and Hubermann 1994, 172).

Hägg and Henlund 1978). However, a common procedure used to establish validity in qualitative studies is triangulation (Eriksson and Kovalainen 2008). Triangulation is the process of using multiple perspectives to refine and clarify the findings of a study. Triangulation has many alternative forms (methodologies, methods, data, theories, researchers etc.) that can be used either together or separately (Guba and Lincoln 2005; Eriksson and Kovalainen 2008). In general, case studies are usually considered more accurate, convincing, diverse and rich when they are based on several sources of empirical data. The metaphor of puzzle solving (Alasuutari 2000) works excellently with the case-study approach as it describes the use of various sources to find a solution. Crosschecking, or triangulating data from many sources, is expected to provide a more multidimensional image of the composition of activities in a particular social setting. The challenge in triangulation is the possibility of ending up with controversial, paradoxical or even conflicting results. On the other hand, these findings may be a source for new angles and ideas (Eriksson and Kovalainen 2008). Many forms of triangulation were utilised in this study and some of them have been referred to in previous sections. For example, findings derived from in-depth interviews were crosschecked with secondary sources, telephone interviews and emails as much as possible and vice versa. This was necessary because it has to be admitted that interviews are always subjective interpretations created by interviewees. This crosschecking proved its worth when it revealed that one firm had provided incorrect information and was therefore excluded from the study.

Validity is a classic evaluation criterion used in science, referring to the extent to which conclusions drawn in a study provide an accurate description or explanation of what happened (Eriksson and Kovalainen 2008). However, different epistemological assumptions require researchers to adopt a slightly different approach to validity and reliability issues in qualitative research when compared to the approach they adopt in quantitative studies (Lincoln and Guba 1985; Kirk and Miller 1986). This view is supported by Denzin and Lincoln (2005) who declare that validity is supported by realist and critical realist approaches relying on precisely defined qualitative methodologies. So, validity in qualitative research can be seen as the appropriateness and relevance of the methods, approaches, research techniques, language, type of writing, and so on, to the research object and the research questions (McKinnon 1988). Summarising this discussion, it can be stated that in qualitative research, the term ‘validity’ is used rather differently to the way it is used in quantitative research; the aim is to provide research with a guarantee that the report or description is correct (e.g. Eriksson and Kovalainen 2008). In other words, in principle, to be able to state that research findings are valid is to say that findings are true and certain (Schwandt 2001). Truth, here, means

that the findings accurately represent the phenomenon referred to and that they are backed by evidence. However, although concepts of reliability, validity and generalisability provide a basic framework for the evaluation of research in business research (e.g. Yin 2002) it should be borne in mind that qualitative researchers are divided in their opinions of whether the accuracy of interview and observation accounts can be evaluated with the classic criteria of reliability and validity in research (Eriksson and Kovalainen 2008). One of the prevailing ways of addressing issues of validity (i.e. trustworthiness) in qualitative research is according to Lincoln and Guba's (1985) classification. Authors (1985, 301–327) distinguish four measures for evaluating the trustworthiness of a piece of qualitative research. These are dependability (reliability), confirmability, credibility and transferability.

Dependability/Reliability refers to the researcher's ability to present truthful and reliable information about the phenomenon (Lincoln and Cuba 1985, 298–299). In other words, the researcher has a responsibility to offer information concerning logical, traceable and documented research processes to the reader (Eriksson and Kovalainen 2008). In the context of qualitative research, dependability/ reliability concerns whether the researcher is obtaining data on which he or she can rely, and is closely connected to the execution of the study. The researcher must try to avoid accidental circumstances that might result from a respondent's lack of care or concern, which could prejudice the credibility of those responses (Kirk and Miller 1986; McKinnon 1988; Yin 1994). Dependability/ reliability in realism research is based on the assumption that there is a single reality which is studied repeatedly (Merriam 1988). However, data in qualitative research on the same real life situation can be collected by different researchers and at different times. Therefore the different data sets may not come together into one conforming picture (Neuman 1994). Hence, achieving reliability or dependability in case study research requires following case study procedures so as to provide a documentation trail (Christie et al. 2000). The approved techniques for reliability tests are: establishing the case study protocol during data collection, the execution of an interview protocol and the establishment of a case study database (e.g. Merriam 1988; Eisenhardt 1989)

In terms of dependability/reliability, several actions were taken to improve the validity of the study. For example, observing a research topic for a longer time period is often said to decrease the chances of drawing conclusions based on abnormalities or coincidences which can happen in cross-sectional studies (Paavilainen-Mäntymäki 2009). The long time span of the study enabled the researcher to rethink the arguments several times and to conduct further research action whenever needed (e.g. Miles and Hubermann 1994; Yin 1994; Johnson 1997). Therefore, this study clearly has characteristics that can be

related to longitudinal research because it includes data gathered at different points in time between the years 2004 and 2010.

Furthermore, this study has involved interviewing many different people from the case organisations over the course of the research period. This enabled the researcher to gather a large amount of interview data, which in turn increased the likelihood of gathering comprehensive and reliable information (see e.g. Hätönen 2009, 143). Also data triangulation achieved through interviewing many informants from the case firms, and corroborating the information with secondary material, can be expected to improve the chances of gathering comprehensive and reliable information from the study subjects. In addition, the research situation also had an effect on the reliability of the results. The in-depth interviews (except one) were conducted on the firms' premises. Table 13 presents some of the situational factors for each interview conducted in 2008. From the researchers' viewpoint, every interviewee was interested in the study and the atmosphere was convivial. No major interruptions occurred during the interviews.

Table 13 Situational factors in personal interviews (2008)

Firm	*Situational factors affecting the internal validity (credibility) of the results.*
Information Technology Oy	The interviewee was leaving the firm soon and hence he first considered whether he was able to give an interview. However, in the interview situation he was really enthusiastic to tell the story of his firm. The interview was carried out in a meeting room at the hotel. There was one interruption at the very beginning of the interview when the interviewee had to answer his phone. Enough time for the interview was given.
Aluminum Oy	The interview was conducted in the interviewee's office. The interview was not interrupted and the atmosphere was very convivial, giving enough time for the interview.
Findows Oy	The interviewee first mentioned that he had worked for the firm for only about a year. However, he had worked in the industry for decades, so he knew the business and history of the firm very well. The interview was conducted in the interviewee's office. The interview was interrupted once; however, the interruption only lasted about a minute. The atmosphere was convivial and although the duration of the interview was less than an hour, the necessary information was provided.
Forestry Oy	The interview was conducted in the interviewee's office. The interview only lasted about 45 minutes, and followed the interviewee introducing the factory and products. The atmosphere was hospitable.

The conversations took place in natural settings, which can be a factor in increasing reliability: the entrepreneur/managers were confident in their natural environment. In addition, seeing the factories, offices and employees of the SMEs gave the researcher a more extensive picture of the firm.

Confirmability refers to whether somebody else can reach the same conclusions about the phenomenon in question. In other words, confirmability refers to the idea that the data and interpretations of an enquiry are not merely imagination. This again refers to the linking of findings and interpretations to the data in ways that can be easily understood by others (Eriksson and Kovalainen 2008). Hence confirmability measures the objectivity of the researcher (Lincoln and Guba 1985, 299–301), or in other words the degree of researcher bias (McKinnon 1988). Researcher (observer) bias means that a researcher's own assumptions and beliefs may distort the information. The researcher's presumptions about the studied phenomena shape the way in which the study is conducted and analysed: if the researcher is biased it is what he or she sees and hears that is of concern, and this results in selective perception and interpretation (McKinnon 1988, 36–39). The basic technique for ensuring confirmability is to develop a record of data collected (for example transcriptions, recorded tapes, secondary sources etc.) to allow other researchers to observe a chain of evidence. In this study the aim has been to report all the choices that have been made, in as much detail as possible. In addition, a rather standardised format (based on the literature review) was used in the majority of the personal interviews. Hence, interview outlines were based on theoretical structures instead of the researcher's own assumptions or beliefs (see also Hätönen 2009, 144). Furthermore, the first personal interviews (2008) were conducted in pairs, which in turn weakened the researcher's ability or opportunity to lead the respondents to a desired result. Moreover, all personal interviews were taped and transcribed. Finally, case descriptions were sent to the case firms, which enabled them to comment on any subjective interpretations of the incidents recorded (e.g. Miles and Huberman 1994; Yin 1994).

Credibility measures the researcher's ability to provide results that correspond to the reality (Lincoln and Guba 1985, 294–296). In other words, credibility refers to the researcher's ability to draw credible and accurate conclusions from the collected data (see e.g. Johnson 1997). Eriksson and Kovalainen (2008) note that the key questions concerning credibility are:

1) Whether the researcher is familiar with the topic and whether the data are sufficient to justify his/her claims.
2) Whether the researcher has made strong logical links between observations and his/her categories.

3) Whether any other researcher could, on the basis of his/her materials, come relatively close to the same interpretations or agree with his/her claims.

In this study, considerable effort has been made to ensure the credibility of the results. Sending the case descriptions to the case firms for comment can be seen to enhance the credibility of the interpretations, and resulted in useful feedback from the interviewees being available before the researcher finalised the conclusions (Miles and Huberman 1994; Yin 1994). In addition, in order to help readers to make the connection between the reality and the results through presenting original data, several direct quotations from the interviews are used in the empirical part of the thesis (Eisenhardt and Graebner 2007).

The interviewees' positive attitude towards the study clearly increased the validity of the results and it may be assumed that the interviewees did their best to 'stick to the truth' (see also Hurmerinta-Peltomäki 2001). By familiarising himself with the secondary data (financial statements, articles, websites etc.) and telephone interviews, the researcher had already formed a good picture of the most essential changes that had taken place in the history of the studied firms and therefore he was able to ask some defining questions during the in-depth interviews conducted in 2008. In other words, having some pre-knowledge of the firms helped the interviewer to speak the same language as the interviewees. As a result, there were no real misconceptions in the subjects discussed. Data triangulation clearly increased the credibility, as well as overall quality of the study, because the most important events behind the studied SMEs' international growth were always referred to in the in-depth interviews as well as in the other data sources (e.g. financial statements, newspapers etc.). Moreover, if some events still remained unclear after the researcher had investigated data from the interview and secondary sources, these were discussed again during the update-/comment phase in 2010.

Transferability can be seen to measure the broader applicability (i.e. generalisability) of the study's results (Lincoln and Guba 1985, 296–298). The researcher has a responsibility to show the degree of similarity between his/her research, or parts of it, and other research, in order to connect the research to the previous results achieved in the field. The idea of transferability is to observe if some sort of similarity could be found in other research contexts (Eriksson and Kovalainen 2008).In other words, transferability deals with the issue of whether the results of the study can be extended in one way or another into a wider context.

A common criticism of the case-study method is that it provides little basis for scientific generalisation. Yin (1989), however, does not concur, stating that case studies are generalisable to theoretical propositions though not to populations and universes. Yin (1989) also argues that because the case study

does not represent a sample, it should be regarded in the same way as an experiment. With the case-study method, the investigator aims to expand and generalise theories (analytic generalisation) and not to enumerate frequencies (statistical generalisation). While discussing the generalisability of the study, it should be noted that every SME is an individual unit and any study of them therefore has subjective elements, which makes generalisation difficult. However, some cases and the knowledge provided by them may be interesting in themselves (Hägg and Hedland, 1978). Conversely, the ability to specify the unit of analysis and the case within a study (see Chapter 3.4) often increases the transferability (Grünbaum 2007). When firms studied in this research are observed from the viewpoint of transferability of results, it should be noted that the focus was on Finnish industrial SMEs that had grown internationally during the years 2004 and 2007. Furthermore, these firms were followed carefully until the year 2010. This makes the studied firm group rather small. However, the study has some features which can be seen to broaden the transferability of results. Although the case firms operate in different industries, work with different kind of clients and so on, they still have some common characteristics. For example, each of these firms is already well-established; technical capabilities and R&D play essential roles in their business and each firm operates in a mature industry from the perspective of industry lifecycles. To summarise, it is argued that the transferability of this study's results (introduced in Chapter 4.5) is at least adequate when we are not thinking of generalisability in a manner that is used in quantitative studies (statistical generalisation) but instead rely on a more qualitative approach (analytical generalisation). Furthermore, although there are several opinions of generalising case studies, it could be argued that it is possible to derive certain law-like statements from qualitative data (e.g. Hätönen 2008, 145). However, it is noted that in dynamic capabilities research, which is very context-dependent, the law-like statements are valid only in a specific context. In this study this context is the international growth of SMEs. It is also noteworthy that this study is conducted among Finnish SMEs and therefore that the study results are expected to be most relevant for firms originating from Small Open Economy (SMOPEC)[22] countries which have rather similar business environments.

[22] See e.g. Luostarinen & Gabrielsson (2004) for the small and open economy (SMOPEC) definition.

4 DYNAMIC CAPABILITIES IN THE INTERNATIONAL GROWTH OF SMES

This chapter describes certain critical events behind the international growth of the SMEs reviewed in this study. After the case descriptions are introduced, each case is also analysed through the framework of the study.

4.1 Information Technology Oy: acquisition as an accelerator of international growth

Information Technology Oy was established in the early 1990s. The firm manufactures test and measurement products, which are primarily based on software used in certain high-technology industries.

The critical event identified as playing a major role in the international growth and development of Information Technology Oy (see Figure 6[23]) was the acquisition of US-based Load Measurement Ltd. in 2005. That event is described in this chapter. However, first we briefly introduce the historical background of Information Technology Oy. At the end of the chapter, the firm's recent development is briefly discussed as well.

[23] Figure represents the absolute international growth curve of Information Technology Oy. In other words, the figure introduces the absolute monetary value of firm's operations.

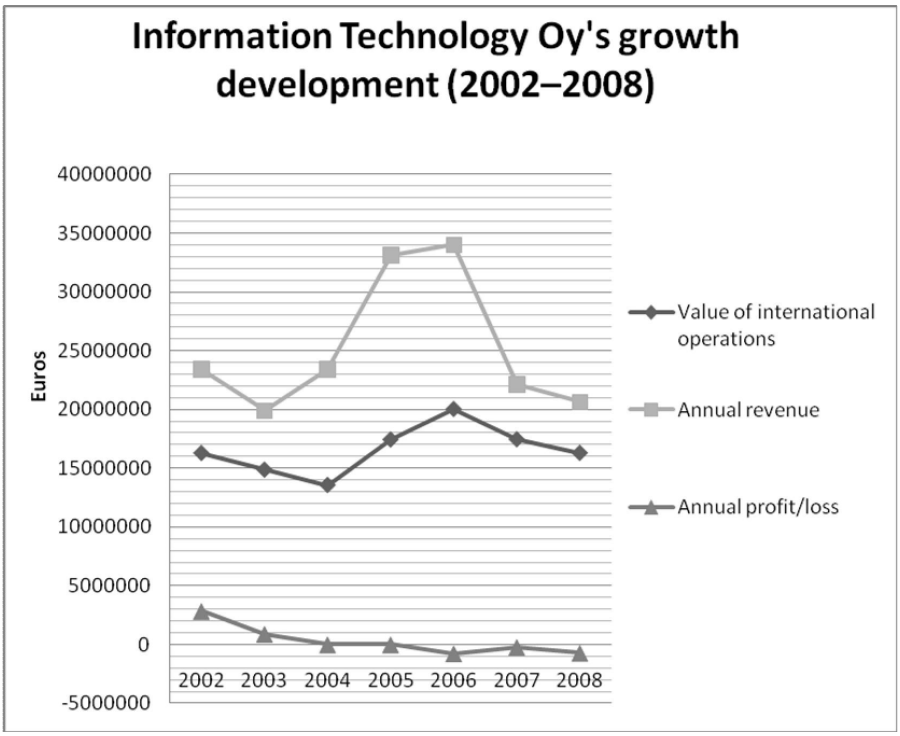

Figure 6 Information Technology Oy's growth development (2002–2008)

4.1.1 Prologue: radical innovations and key customer relationships provided opportunities for growth

The roots of Information Technology Oy's growth development can be traced back to the decision of the firm's founder to become an entrepreneur. Information Technology Oy began as a consultancy firm, but soon after, it managed to develop an innovation that enabled it to start its own production. A significant factor behind the innovation was that in the 1980s, the founder had worked for the multinational firm Mobile Oyj, where his task was to purchase different measurement and test products (meters) for the firm. However, concerned by the extremely high prices of these products, he began to devise alternative ways of producing these meters. His background in software programming assisted Information Technology Oy in developing a software-based meter, whereas competing products were relying on more expensive and heavy electronic components. An important factor behind the birth of the new meter was the firm's client, whose requirements played a major role in the development work. However, at the start, it was not self-evident that Information Technology Oy would aim for the measurement

industry. Further, there were also other business alternatives. For example, the firm's management considered starting the production of routers instead of measurement tools and test tools.

> *The birth (of the innovation) was significantly influenced by a customer who had subcontracted us. Of course, the fact that we were also operating with contemporary products assisted with the choice of business area…There were also other product ideas besides the one that we finally chose.*
>
> *(Former Vice President, e-mail, 13.9.2010)*

The founder of the firm was also the first CEO of Information Technology Oy, and remained in that position until 2001. Subsequently, he stayed on as Chairman of the Board. Besides being able to develop technological product innovations, the firm also became the supplier for Mobile Oyj from the outset.

> *I wouldn't say that we were a main supplier, but we obtained a significant foothold in a limited area.*
>
> *(Former Vice President, e-mail, 13.9.2010)*

The firm's product was easy to sell because it was smaller and cheaper than the products offered by competitors. In practice, the user needed only a computer, interface card, and Information Technology Oy's software. In 1995, Information Technology Oy presented a new adapter and as a consequence, the firm's meter became portable: a clear technological advantage. Indeed, the entire idea of utilising software as a core element of the meter was so radical that it took a long time before competitors started believing that the logic could actually work.

> *We used to joke that it was good that our clients did not know that it was 'impossible' to do this (measurements with software), because we have already been doing it for many years. Our competitors used to argue that it could not be done and that they had to rely on electronics.*
>
> *(Director of Personnel, interview, 23.1.2008)*

In 1999, the firm launched another significant product innovation. This time, Information Technology Oy succeeded in building the world's first software-based meter for 3G networks. The firm's management strongly believed that 3G-technology would soon undergo a genuine breakthrough, and hence, the firm's entire product strategy was built around 3G-meter sales. These meters soon became quite successful, although new technology did not develop as fast as the firm's management had planned (Tietoviikko, 2003). On the other hand, the progressive product developed by Information Technology Oy was probably a significant factor behind the fact that the firm managed to grow at the time when meter markets nearly collapsed.

> *Between the years 1999–2001, Information Technology Oy had, without doubt, the technologically best meters in the world and that made the growth possible.*
>
> *(Director of Personnel, interview, 23.1.2008)*

> *This kind of technological breakthrough is a good time to bring in new clients.*
>
> *(CEO A, Tekniikka & Talous, 2002)*

Information Technology Oy's products are based on product platforms. The latest platform was launched in 2005 and it clearly increased the quality of the firm's products. However, the project was delayed and took almost 2 years to complete. Delays are very common while new platforms are being developed, and in the case of Information Technology Oy, two different product platforms were integrated into one entity. This required, among various actions, implementation of a new programming language, and hence, the entire product architecture had to be rebuilt from scratch.

> *We developed a new testing platform. It was about time because the old platform had been in use since the birth of the firm…the expandability of our products, as well as statistical features, will clearly increase. For example, Operators are interested in the success rate of calls when they move from a 2G-network to a 3G-network and vice versa.*
>
> *(CEO B, Tekniikka & Talous, 2005)*

> *This [development of a] new platform took almost 50% longer than we first thought. As a result, we lagged behind (competitors) in certain issues and we had to focus more on product manufacturers when we, in a certain way, abandoned our other segment [operators].*
>
> *(Director of Personnel, interview, 23.1.2008)*

In addition to product innovations, there is another factor which played a major role in the early phase of Information Technology Oy's growth. Throughout the firm's history, its main customer was the multinational, Mobile Oyj. In fact, as has been mentioned, Information Technology Oy's roots are in Mobile Oyj and as soon as Information Technology Oy was established, it became Mobile Oyj's supplier with regards to measurement products. This was possible because the two firms' managers had close personal relationships with each other. In other words, many of Mobile Oyj's decision makers were familiar to the managers of Information Technology Oy from their earlier work history or from their student days. Of course, a good relationship alone was not enough to convince Mobile Oyj, but it helped the firm in developing products that not only matched Mobile Oyj's needs but were also clearly cheaper than competitor products. This relationship guaranteed good profits and references for the new firm and hence enabled steady

growth. However, interviewees' views differed with regards to the exact time that Information Technology Oy became the main supplier for Mobile Oyj. It can be stated that this took place somewhere between 2005 and 2008.

> *Typically, the main supplier delivers the most profitable interfaces. Other suppliers then deliver those interfaces the main supplier does not want to manufacture or does not have the time to work on.*
>
> *(Director of Personnel, interview, 23.1.2008)*

During the initial years of its existence, Information Technology Oy was very dependent on Mobile Oyj, but it slowly began to attract other clients. Its relationship with Mobile Oyj was a good reference for a new firm and it also clearly provided technical know-how to the firm, in addition to opportunities concerning R&D without excessive investment risks. Further, internationalisation of the firm was initiated by selling products to Mobile Oyj who, subsequently, used them worldwide.

> *In the early 1990s, our small start-up firm did not have any options to gather external financing, so we cooperated with our client on R&D. This first partnership made our business possible.*
>
> *(Former Vice President, website of industry organisation, 2008)*

As early as 2003, Information Technology Oy employed about 200 people. At this point, international operations were starting to play a major role in the firm's business, and in just a couple of years, the firm had established several sales offices around the world. In this context, it is not very surprising that in the telephone interview conducted in 2004, the firm's CEO declared that Information Technology Oy was a strongly growth-oriented firm. The fast growth demanded continuous modifications in the firm's business systems; for example, management systems were renewed. To maintain the firm's internal organisation, efficiency and processes at a satisfactory level, Information Technology Oy implemented such systems as ISO9001 and ERP across all its units. Its management also continuously reshaped the firm's strategy and, in interviews, it was revealed that the firm had significantly modified its business plan during the period 2000–2006. Those organisational changes did not occur smoothly as there were internal conflicts, frustration, and misunderstandings taking place inside the firm. However, the management of Information Technology Oy gained experience in dealing with and solving these issues (Director of Personnel, telephone interview, 27.9.2010).

Good profits enabled the firm to finance its growth through cash-flow. The management has attempted to retain this routine, and in 2007, the firm's CEO mentioned that the firm had tried to avoid debt (CEO B, telephone interview, 2007). After establishing several international sales offices around the world, the management was notified that the firm was approaching the limits of its

organic growth. The firm started to plan international acquisitions as a route to future (Talouselämä 2005). Information Technology Oy had to grow to survive because the global market demand decreased over 20% a year during the period 2005–2007 (Director of Personnel, interview, 23.1.2008). In this type of market situation, the only way to gather new clients was to attract them from competitors.

Some years earlier, the firm had already "practised" acquisitions by purchasing a Finnish firm. The deal had doubled the number of employees in the firm and brought three new sites.

> *It is necessary to grow. We have invested in organic growth and aimed to accelerate the birth of new products that way. Recruiting new talents is not easy and the limits of organic growth are on the horizon. Hence, we have added acquisitions to our tool box.*
>
> *(CEO B, Talouselämä, 2005)*

> *In our business, you must aim for acquisitions or someone else will buy you. It is the economies of scale. If you have only a limited number of large clients, they have only a limited amount of money to use for the R&D of certain measurement products. Well, that money feeds only a certain number of companies and when your market is not growing anymore, you have two alternatives: either purchase other companies or go broke. It is as simple as that.*
>
> *(Director of Personnel, interview, 23.1.2008)*

4.1.2 Acquisition: an avenue to India and the United States (years 2005–2006)

Pre-acquisition phase

In 2005, Information Technology Oy announced to the press that the firm had signed a letter of intent concerning the acquisition of a US firm called Load Measurement Ltd (Digitoday.fi, 2005). Load Measurement Ltd. was founded in 1996, it was profitable, and it had recently grown rapidly. In 2005, the firm employed about 75 people and its revenue was about 10 million dollars (about 8 million euros). In February 2005, Information Technology Oy's CEO valued Load Measurement Ltd. at about 26 million dollars (about 21 million euros) (CEO B, Light Reading, 2005).

The management of Information Technology Oy declared that the acquisition would increase the level of the firm's customer service and make the product portfolio more versatile. Information Technology Oy had a good market position in Europe and Asia, whereas Load Measurement Ltd. was

strong in the United States and had manufacturing unit in India. Hence, the firms' primary markets were not overlapping but complementary.

> *This acquisition increases our visibility and product portfolio globally. Information Technology Oy's strong position in Europe and in Asia together with Load Measurement Ltd.'s firm foothold in the United States provides excellent growth opportunities.*
>
> *(CEO B, Digitoday.fi, 2005)*

One of the main motives behind the acquisition was that Information Technology Oy already had a global sales channel ready for marketing the products of Load Measurement Ltd., and the firm wanted to move to the next size class. This required increases in its product range.

> *We had a joke that we were like shampoo sellers who had nothing else to sell than anti-dandruff shampoo. Every time a client wanted to buy shampoo we offered them anti-dandruff shampoo.*
>
> *(Director of Personnel, telephone interview, 27.9.2010)*

Other motives behind the acquisition were primarily related to technological resources and capabilities. By combining the technologies of Load Measurement Ltd. with the ones already possessed by the firm, Information Technology Oy aimed to strengthen its market position in VoIP (Voice over Internet Protocol) product markets. The importance of acquiring resources related to VoIP technologies was addressed in the interview of the CEO of Information Technology Oy.

> *We haven't been involved in too many VoIP products and solutions, and that is where Load Measurement Ltd. is strongest.*
>
> *(CEO B, Light Reading, 2005)*

The acquisition provided for a rapid entry into the VoIP test sector. VoIP was seen as a very promising new market, but developing products from scratch would have required significant efforts because there were competitors who had started their R&D in this sector much earlier. The development of new innovations and products is expensive and risky, and furthermore, Information Technology Oy faced challenges in its innovation processes. In other words, not all of their new products have been successful.

> *We have been always working with the most modern technologies. Sometimes we've been investing in technologies that our clients have not needed after all.*
>
> *(Director of Personnel, interview, 23.1.2008)*

In 2005, the firm's CEO B mentioned that Information Technology Oy's primary markets continued to be in mobile markets, where they had regularly launched new test products and services during the past year. Instead, VoIP

was seen as a means of expanding the firm's product offering to complementary product markets (CEO B, Light Reading, 2005). Another motive for buying VoIP resources can be found by analysing the firm's competitor environment. Several of the firm's competitors had made similar acquisitions recently.

Providing a wider product range was clearly one of the focus points of the strategy used by Information Technology Oy. The firm's main clients, such as Mobile Oyj, were continuously decreasing the number of suppliers used and this development clearly favoured suppliers who could offer larger entities. This issue also came up during the CEO's telephone interview in 2007, and it partly explains the high growth-orientation of the firm.

> *Economies of scale are large and we want (to produce) higher volumes. We aim to become a large partner to our clients and a stimulating employer to our employees.*
>
> *(CEO, telephone interview, 2007)*

To summarise, it can be stated that Load Measurement Ltd. fulfilled the criteria that Information Technology Oy had set for the potential acquisition candidates: the firm possessed technologies that Information Technology Oy did not yet have, it was large enough, and it served predominantly the same customers as Information Technology Oy. Furthermore, the products manufactured by Load Measurement Ltd products were seen as a good addition to Information Technology Oy's product line.

International growth in the post-acquisition phase

In 2005, Information Technology Oy finalised an acquisition of Load Measurement Ltd. by acquiring all of the firm's share capital. In practice, the acquired firm became Information Technology Oy's subsidiary and the acquisition was executed through a special issue of new shares for subscription, the assignment of option rights, and a cash payment (Financial statement, 2006).

As a consequence of the deal, Information Technology Oy employed almost 300 people in nine countries. The firm obtained 75 new employees from the United States and India. At that time, the CEO of Information Technology Oy recognised that about 20 were key persons to be retained (Tekniikka & Talous, 2005). The firm managed to retain these people quite well. On the technical side, the key persons were mainly Indian experts who had obtained a transfer to the United States as a reward for good performance. This again meant that their standard of living had significantly increased and, in general, they did not want to change their employer. In sales, the turnover of personnel was a bit higher, and this was partly because the management of Information Technology Oy decided to terminate some contracts owing to unsatisfactory performance. The replacement professionals were hired mainly from the

firm's competitors. As a consequence, Information Technology Oy also faced some legal challenges in the US markets. This was because some competitors invoked contract clauses that prohibited these people from working for the firm's competitors during a certain time period (Director of Personnel, telephone interview, 27.9.2010).

The acquisition increased the firm's revenue by a large amount (over 40 %) and sales in America were more than doubled. However, the firm's revenue had already grown 16 % (organically) the year before. In the firm's financial statement, the year was summarised as follows:

> *For Information Technology Oy, 2005 was a year of strong growth. Information Technology Oy, in line with its strategy, sought growth both by investing strongly in research and development activities and through the acquisition of Load Measurement Ltd.*
>
> *(Financial statement, 2006)*

Besides the firm's growth, the acquisition of Load Measurement Ltd. was also seen as a good learning experience for the firm's management.

> *We practised acquisition from abroad by going to India and to the United States. We were laughing that we are going to markets where Finns have been worst and risks are highest. Familiarising with organisation, integration and things like that was the best management university. We learned to build structures from a board of directors and a management group to the line organisation. In addition, the focus of the personnel moved from Finland to abroad.*
>
> *(Director of Personnel, interview, 23.1.2008)*

However, there were also some challenges in the acquisition process. Particularly in the post-acquisition phase, some cultural differences started to create major problems. The management of Information Technology Oy thought that the production processes used by Load Measurement Ltd. were not efficient enough. One factor behind this was the bureaucratic style of Indian management and the lack of self-direction in local personnel. Indian employees also lacked practical know-how, although they often knew how tasks should be done in theory.

> *If you give a Finnish employee a project…he will ask if needed and independently checks up on things. In the United States and India, the logic is different. In the United States, money is the only motivator, and in India, the power distance is larger. Managers really are managers and they are in control.*
>
> *(Director of Personnel, interview, 23.1.2008)*

Information Technology Oy solved this cultural challenge by sending Finnish quality managers to coach local personnel. The results were excellent in India, because Indian employees were very responsive. However, in the United States, similar practices were not as efficient.

After the acquisition, Information Technology Oy increasingly transferred its production and R&D to India. Between 2005 and 2006, the number of the firm's employees in India increased from 40 to 140. At the same time, the number also increased slightly in Finland, but no one was hired in the United States. This can be seen as reflecting the change occurring in the firm's employee structure. The reasons for this are natural, since Indian production costs were and are significantly cheaper than in Western countries. In 2006, it was clear that Information Technology Oy would employ more people in India than in Finland in the near future. Another signal from the emerging structural change of the firm was that Information Technology Oy opened two new sales offices in India in 2006. At the same time, the firm also invested in new facilities in its Indian product development unit, and consequently was able to increase the number of local R&D personnel.

> *Similar development work costs four times more in Finland than in India. In the United States, again, the price is one and a half times the Finnish price.*
>
> *(CEO B, Tekniikka & Talous, 2006)*

In 2006 and 2007, the testing market for telecommunication networks suffered from a dramatic downturn. As a result of mergers, acquisitions and bankruptcies, Information Technology Oy lost several important clients. However, by increasing sales in American markets as well as through cost savings achieved through Indian units, the firm was able to handle the challenging market environment quite smoothly and retained its good financial position. Hence, it can be said that the acquisition paid back very quickly. The importance of the ability of Information Technology Oy to continuously grow is highlighted when the number of its competitors is studied during the research period. This is because, according to the firm's Director of Personnel (interview, 23.1.2008), about 15% of competitors vanished annually during the period 2003–2006.

4.1.3 Epilogue: hard times (2007–2009)

After 2006, Information Technology Oy's export to sales ratio slightly decreased from 86 per cent (in 2007) to 79 per cent (in 2008). Between 2006 and 2007, the firm's total revenue decreased about 16 per cent and the number of personnel decreased from 425 to 395. The trend remained the same between

the years 2007 and 2008 when the revenue decreased about 7 per cent and the number of personnel from 395 to 344 people. The majority of the personnel reductions were made in Finland and in the United States (Financial statements 2007, 2008 and 2009).

The explanation for those reductions is the structural change in the industry, which meant that markets decreased. Furthermore, as a consequence of market uncertainty, customers cancelled or delayed their production development projects. The customers also started many cost reduction projects, which forced Information Technology Oy to reduce its prices.

In 2007, the firm closed down its joint venture in Japan. Japan was the only market where Information Technology Oy operated in this mode. The background for this was that the firm's local dealers wanted to establish a firm in Japan. The ownership was divided so that Information Technology Oy owned 51 per cent of shares and local dealers shared the rest. However, over a longer term, their counterparts decided to return to the previous export mode (i.e. indirect exporting). The reasons for this were that traditional export models were much simpler and, on the other hand, while operating through the firm-based mode, there were some differences between the targets of local owners and those of Information Technology Oy. Furthermore, understanding Japanese markets from Finland was seen as very challenging for the management of Information Technology Oy, and they realised that Japan was such a closed market that it would have taken too long to create profitable firm-customer relationships in the country.

> *Japan is a unique market…If you are not Japanese, you don't have permission to discuss with decision makers, unless you have been there for many years and have demonstrated that everything works.*
>
> *(Director of Personnel, interview 23.1.2008)*

Although Information Technology Oy's revenue started to decrease in 2007, the firm's market share grew and it had become, according to independent market research, the second largest player in its domain. Although the firm's business environment was challenging, Information Technology Oy invested significantly in its product development. In 2007, R&D costs were about 40 per cent of the firm's revenue, and in 2008, the figure was still as high as 35 per cent (Financial statements 2008 and 2009). The main reason for the high R&D costs was (apart from the development of several new product versions) that the firm was searching for new market opportunities by developing products targeted to governmental organisations. The first of the "governmental" products was manufactured in 2007, and Information Technology Oy has protected them with several international patents. Because the market was completely new to the firm, this required investments in understanding the market and competition environments. In addition, the firm

had to create new customer relationships and plan production processes for these products. At that time, the management of Information Technology Oy believed that government solutions products would play a major role in the future development of the firm.

In 2009, the industry's market situation remained challenging. The global recession as well as mergers of Information Technology Oy's customers retained a negative influence on the markets. On the other hand, the markets were waiting for a breakthrough in 4G-mobile technology, which would significantly increase the demand for test products and measurement products. However, in 2010, Information Technology Oy was acquired by a large North American firm. The new owner operates in the same measurement and testing industry as Information Technology Oy, but the firms are seen as complementary to each other. According to the CEO of Information Technology Oy, many synergistic advantages can be found, and some of the products will be combined. The headquarters of Information Technology Oy will remain in Finland and its management will continue working for the new owner (CEO B, Kaleva, 2010).

4.1.4 Organisational processes in the international growth via acquisition of Information Technology Oy

When the case is studied from the viewpoint of processes underpinning dynamic capabilities, there were clearly multiple motives for the acquisition. The management of Information Technology Oy searched for new technological resources, new geographical markets, and ways to increase the firm's effectiveness. Load Measurement Ltd. filled the criteria mandated for the potential acquisition candidate. In this chapter, the findings concerning the chosen organisational processes of Information Technology Oy are introduced in greater detail.

Opportunity search

At some point, the management of Information Technology Oy noted that the firm would soon reach the limits of organic growth. Hence, in the autumn of 2004, the firm announced its decision to buy Load Measurement Ltd. When the deal was studied closely, there emerged clear signs indicating that the firm had scrutinised its business environment very systematically.

An illustration of that systematic analysis was elicited from an interview with the firm's personnel director in 2008. During the interview, it was revealed that Information Technology Oy had created a routine to guide the firm's acquisitions. The starting point was in setting the criteria for the

characteristics that had to be present in the candidate firm. These criteria were based on the firm's own strategy. Indeed, the firm's management had created a tool to assist in following the firm's market environment. In practice, this tool was a document that included basic information (e.g. location, size, products, technologies etc.) of firms found to be interesting. The regularly updated document included about 200 firms, and typically, these were Information Technology Oy's clients, competitors, or potential candidates for acquisition. New prospect firms emerged from discussions with suppliers and clients, at exhibitions, and from the internet and were added to the document. On the other hand, some firms were also excluded or removed from the document as a result of mergers, acquisitions and bankruptcies. In general, communication with stakeholders was an essential source of information for the firm.

> *Innovations that feed our growth became from clients. It was a client's suggestion that made us to take significant technological step which again enabled a unique competitive advantage for us.*
>
> *(Former Vice President, website of industry organisation, 2008)*

In practice, the firm's acquisition process started in such a way that after identifying a promising candidate, the key management of Information Technology Oy conducted meetings concerning the acquisition opportunity. At this point, there were, on average, only five people aware of the plan and some early-phase negotiations with the candidate had already taken place. When the idea was developed further, other managers of the firm were also informed of the plan.

Load Measurement Ltd. filled the criteria for acquisition by being large enough, profitable, by possessing complementary technology, and by producing products which could be sold through the same sales channels as used for Information Technology Oy's products. An additional motive behind the acquisition was the desire of Information Factory Oy to obtain access to the VoIP technologies used by Load Measurement Ltd., which were believed to guarantee access to new product markets.

A factor which influenced the timing of the acquisition was the change taking place in the primary markets dealt with by Information Technology Oy. The firm's management was clearly aware of the fact that the market environment was becoming more challenging. In 2006, there were, surprisingly, several mergers and acquisitions occurring among the leading global manufacturers of telecommunications equipment. As a result, significant decreases in the demand for testing equipment and solutions took place. This was also a challenge for Information Technology Oy's net sales. However, by doubling its sales in American markets through the acquisition of Load Measurement Ltd., Information Technology Oy was able to grow, even during 2006. The decision of management to increasingly transfer the firm's

operations to India could also be seen as a reaction to the changing markets. The Indian workforce is much cheaper than that of Western countries, and hence, the increase in local operations made it possible to grow with smaller expenses. Therefore, the acquisition played a major role by helping Information Technology Oy overcome the challenges of the downturn in the industry.

Another sign of the managerial capability to interpret the changes occurring in the business environment, and the effects of those changes on the firm's business, can be observed from certain comments which indicated that the managers had clearly noticed that their clients were reducing the number of their suppliers. Therefore, it was seen as essential for the firm to expand its product portfolio, in order to be able to sell larger entities to the clients. This ensured that Information Technology Oy was not among those firms nominated when clients began to consider which suppliers could be easily abandoned.

However, the trend of the downturn in the telecommunications network testing market continued in 2007. Customers continued to reorganise their operations and searched for cost savings. Accordingly, several product development and customer support units were closed down, and some product development projects were cancelled or postponed. As a consequence, Information Technology Oy also lost some historically important customers. The firm was also forced to participate in its customers' cost-savings programmes by significantly decreasing its prices. As a result, the number of personnel working in Information Technology Oy, as well as its revenue, decreased in 2007. The management of the firm reacted to this development by aggressively searching for new business opportunities. It is noteworthy that Information Technology Oy used such models as Barney's (1991) VRIN-resource model (Valuable, Rare, Imperfectly Imitable, and Non-Substitutable) as well as Kim and Mauborgne's (2004) Blue Ocean Strategy-tools to support the firm's idea generation processes. These systematic search processes for opportunities were realised in 2007 when the firm announced that they had launched a new business area that focused on selling technology to governmental organisations.

Resource acquisition

Sales of high-tech products can be very challenging because salesmen need to be familiar with the complex technological features of their products. Such specialists are difficult to find. Information Technology Oy mandated that each of its international sites had to have local sales and technical support personnel. However, to improve the relationship between the firm's technical and customer-related capabilities, the firm recruited product managers whose responsibilities were to make sure that the R&D unit understood customer

needs. Those managers also supported the firm's salesmen in the customer interface. The product managers were among the key people in the firm, and they had to possess both sales and technical capabilities. As a consequence, Information Technology Oy selected its new product managers very carefully.

The acquisition accelerated the structural change taking place regarding the geographical location of employees working in Information Technology Oy. Before the acquisition, the vast majority of the firm's personnel operated in Europe, especially in the Finnish headquarters. However, soon after the acquisition, Information Technology Oy increasingly began to transfer its operations to India. In practice, routine-level programming was soon being performed almost completely in India, whereas only the most demanding programming tasks continued to be coded in Finland. It can be stated that subsequently, Information Technology Oy was forced to move its production from Finland to less expensive countries. The firm's products represent the most modern technology and clients make their purchase decisions based on the technical features and price of the product. In other words, in this industry, there is no such thing as brand marketing. By transferring routine tasks to India, Information Technology Oy was able to increase its cost-effectiveness and, as a result, the firm's chances to be successful in price competition increased. On the other hand, since the most challenging R&D tasks continue to be conducted in Finland, the firm has ensured that the quality of products remains excellent. However, from the statements released by the management of Information Technology Oy, it could be interpreted that in the future, R&D operations will also be increasingly carried out in India. This again will demand resource reconfiguration processes from the firm. In other words, it has to be certain that Indian employees can execute challenging tasks as satisfactorily as the Finnish employees.

After being notified that recently graduated Indian employees clearly lack practical capabilities, Information Technology Oy decided that every young employee without prior professional experience had to undertake a six-month training period. Hence, the firm ensures that new employees learn the skills needed to produce quality products. This issue is discussed in greater detail later in this chapter (see "resource reconfiguration").

Through the acquisition, Information Technology Oy obtained new technological resources and capabilities, particularly those related to VoIP technologies. The management of the firm obviously assumed that by combining the firm's own technology resources with acquired resources, Information Technology Oy would be able to produce better and more versatile products. Hence, the firm would be able to expand its product offering to meet the increased requirements of customers. The acquisition was an effective way to gather VoIP know-how and products rapidly. This was

because the development of those technologies had already begun and it would have required significant attempts from the R&D department of Information Technology Oy to achieve the technological advantage possessed by firms already operating in the field. This would also have meant that the firm would have had to hire new VoIP specialists to manage the R&D in that field. Accordingly, the acquisition was a shortcut to access VoIP markets where the firm's main competitors had also made similar acquisitions.

The firm also obtained access to the pre-existing networks of Load Measurement Ltd. in American markets where acquired firm had grown rapidly and although the two firms had many mutual clients, the latter firm also possessed local networks that Information Technology Oy lacked. As the firm's Director of Personnel admitted, US markets were seen as very challenging from the perspective of Information Technology Oy. By means of the acquisition, the firm was able to increase its know-how and capabilities concerning the local business environment. That arose from the fact that most of the managers of Load Measurement Ltd. were American, and the firm had already operated profitably in the local market for a while.

As a consequence of very profitable financial years in the late 1990s and early 2000s, Information Technology Oy was able to execute the acquisition without large loans. In practice, the acquisition was executed through a special issue of Information Technology Oy's new shares for subscription, the assignment of option rights, and a cash payment.

To summarise, the acquisition provided several resources for Information Technology Oy. First, it obtained rapid access to technological resources it did not have, and those resources would have been very time and resource-consuming for the firm to build from the start. Besides, the firm obtained access to low-cost but well-educated human resources. In addition, although the role of India is highlighted when the firm is studied from a longer time-perspective, the role of the firm's access to American markets should not be underestimated. The growth of the firm in these markets replaced the most critical decreases that took place in European and Asian markets when the measurement market collapsed. So, at least in the short term, the increased sales in American markets were, from the viewpoint of the firm's growth, critical.

Resource reconfiguration

In general, Information Technology Oy has invested very significantly in its research and development operations, a necessity in an industry where technologies change continuously.

The typical R&D process for Information Technology Oy starts when the firm's largest clients (who are the most influential corporations in their industry) together decide the industry's new standard technologies which in turn

will form a common platform for all forthcoming products. Next, Information Technology Oy and its competitors are advised of the kind of meters their clients will need in the near future. In practice, the next step of the product development process is when Information Technology Oy's salespeople introduce a large number of features (a "road map") to the clients who select the features they want included in their meters. Clients often also suggest some new features to be developed. Those features will be developed only if they pass Information Technology Oy's technological evaluation, a process that mainly reviews required costs, time, and know-how and general feasibility. Often Information Technology Oy orders those new features from its subcontractors and only assembles the end-product itself.

The product development undertaken by Information Technology Oy relies on product platforms. During the research period, the firm developed a new multi-technology platform for its best selling product line. The lifecycle of these product platforms is lengthy, although slight modifications and improvements can be executed continuously. The company's aim is to convince the client to buy its technology platform for the new technology, so the client will adopt its technology across all the forthcoming upgrades. Therefore, selling a platform for emerging technology can provide longer-term competitive advantage for the firm. However, building a totally new platform can be a very expensive and time-consuming task and Information Technology Oy has lost some clients due the delays in the launch of the current product platform.

When a firm's resource reconfiguration processes are studied as part of the acquisition, it can be seen that the role of resource reconfiguration processes may vary during the acquisition process. In this case, resource reconfiguration processes were very much intertwined with opportunity search processes. One of the motives for the acquisition was that the firm's management expected that the integration of Information Technology Oy's resources and capabilities and Load Measurement Oy's complementary resources and capabilities would result in new product innovations and a more versatile product offering which again would result in better customer satisfaction. It should be noted that at the time of the acquisition, the whole telecommunications industry was enduring extremely turbulent times. Information Technology Oy saw a reduction in client numbers, increased price pressures as a result of the economic problems facing clients and clients moving to decrease the number of suppliers they used. Industry competition pressure was so high that the situation could be described as one of hypercompetition[24].

[24] Hypercompetition is described as a modality characterized by intense and rapid competitive moves, in which competitors have to move quickly to build new advantages and erode the advantages of their rivals. In addition, in hypercompetitive environments the rate of technological change is extremely high and structural disequilibrium is injected by means of substitute products, fragmented

An illustrative example of the resource reconfiguration processes undertaken by Information Technology Oy is revealed by a study of the firm's capability to solve quality problems. The firm decided to send an experienced Finnish quality manager to India to pass on good practice to local staff –who knew how to do tasks in theory but clearly lacked practical know-how. Indian employees were motivated to learn how to do practical coding and therefore learning results were very good. So, it could be stated that in the Indian context, this kind of internal knowledge transfer routine was a success. On the other hand, in the United States this practice has not worked nearly as well. One of the explanations probably lies in the cultural differences between countries. According to Information Technology Oy's director of personnel, American employees are motivated mainly by money. This might imply that it can be very difficult to persuade American staff to change their routines if their incomes do not rise concurrently. On the other hand, Indian management culture is clearly more hierarchical than its American equivalent and therefore it could be assumed that local employees take orders and accept rules made by their superiors more directly than American employees who are used to more democratic leadership styles.

Sending Finnish managers to assist in launching a new unit seems to be routine for Information Technology Oy and each international sales office has had Finnish managers in place – at least at the initiation phase. It is a practice followed to ensure that Information Technology Oy's company routines and best practice come into play as soon as a new unit is established or an acquisition is finalised. Of course, acquisitions can be (from the perspective of teaching and learning) more challenging because employees are already used to different routines and processes. Hence, change management is required and in this sense Information Technology Oy seems to rely on a learning-by-doing method which is guided by experienced Finnish managers. Through these managers, Information Technology Oy's management can also coordinate how new units are evolving and, if needed, quick responses (as in sending a Finnish quality manager to teach Indian staff) can be executed.

Another illustration of the firm's resource reconfiguration capabilities is revealed by a study of the Information Technology Oy information systems. An acquisition proved a challenge to the organisation's information flows because it involved several modes of information like, e-mails, intranet, extranet and internet systems, verbal information, several data system services and enterprise resource planning (ERP) systems. The challenge was how the whole information system could be built to work efficiently in a global environment drawing employees from different cultures. To increase this dimension of

---

customer tastes, deregulation, the introduction of new business models etc. (Bettis and Hitt 1995; Christensen 1997; D'Aveni 1994; Brown and Eisenhardt 1998; Hamel 2000).

business, Information Technology Oy launched an IT-project which created an information system common to all units of the firm. The new system integrates heritage systems and overlaps were eliminated during the planning phase. Implementation of the system took time because the company realised that renewal of systems relies on users, not systems. Forgetting old routines was seen as challenging and it required strong support from the firm's managers. Further, implementation of the new system required local support and training. In other words, each local organisation needed to have some key staff to assist colleagues with the challenges posed by the new system.

One more process improvement can be identified from Information Technology Oy's operations. In its process development, the firm uses evaluations and analysis based on CMMI (Capability Maturity Model Integration). In the operation development, regular internal audits were found to be important. The auditors come from other product development units of the firm. Hence, this process gives the project an "external" perspective and also advances the sharing of good practice between different units.

Recently, Information Technology Oy's resource reconfiguration processes have played an essential part beyond the launch of the firm's new business area. The firm is expecting future growth to emerge from the technologies it has started to sell to local authorities. Development of this technology did not require investment in new technologies but instead involved combining existing technology and capabilities.

4.1.5 Dynamic capabilities in the acquisition process of Load Measurement Ltd.

Enablers of dynamic capabilities

Learning capabilities, together with the prior experience of the firm's management, were clearly enablers of the dynamic capabilities identified from the acquisition process of Information Technology Oy. Depending on the context and dimension of learning, learning capability may sometimes be classified as a dynamic capability itself (see chapter 2.3.2). In addition, in this case learning took several forms during the acquisition process, some of which are also discussed in the next chapter as examples of dynamic capabilities. It is worth noting that Information Technology Oy has invested in education throughout its history. Some of its managers had come from academia and the management group included a couple of people with Doctoral degrees. The firm also encouraged its managers to study for an MBA. There seems to be a clear link between the very high education level of the managers and the systematic use of idea generation tools developed in the academic world (e.g.

VRIN, Blue Ocean Strategy). Experience and common sense would suggest that this is very rare among Finnish SMEs. However, from the learning point of view, it should be noted that Information Technology Oy's capability to learn from its main clients was essential. Close customer relationships helped the firm to continuously maintain and develop its unique technological capabilities as new technologies emerged, were standardized, and developed by the industry.

From the viewpoint of enablers of dynamic capabilities it is important to note that the firm's managers already had broad experience of international growth before starting to plan the acquisition of Load Measurement Ltd. Information Technology Oy had only a couple of years earlier established international subsidiaries around the world, which had already contributed learning experience on, for example, how to handle cultural differences and different legal issues. Hence, it can be assumed that the firm was prepared for the challenges it faced in these areas.

Furthermore, the firm had already built global sales channels suited to selling Load Measurement Ltd's products. The management's long industrial experience gained with both Mobile Oyj and Information Technology Oy ensured that the managers really knew their industry. This was reflected in the clear criteria set out to determine ideal candidates for acquisition. In addition, the firm had already conducted one acquisition in Finland so the basic logic of the process was familiar.

Another indication of the important role of the firm's history in the acquisition process is that Information Technology Oy was very profitable in the late 1990s and early 2000s and hence it had sufficient financial resources to conduct the acquisition without borrowing a large amount of money.

Examples of dynamic capabilities

Several examples of the dynamic capabilities possessed by Information Technology Oy can be identified by analysing the acquisition of Load Measurement Ltd. Dynamic capabilities can be identified by investigating how the firm's operational capabilities changed during the research period.

First, Information Technology Oy operates in a high-tech industry which requires that the firm possess a large number of industry-specific technological capabilities (for example knowledge of hardware and software). These could be called the operational capabilities required to keep the business running. However, as a consequence of the acquisition of Load Measurement Ltd, these technological capabilities were reconfigured. It is stated that the deal was Information Technology Oy's response to similar acquisitions conducted by its main competitors. It is assumed that because those competitors had already acquired VoIP-technologies, Information Technology Oy had to respond to ensure its future competitiveness. This is also in line with the observation that

the firm's largest customers had started to reduce the number of suppliers they used. Centralisation usually leads to a situation where only the largest suppliers survive by developing their product offerings to be more versatile. This again requires that the firm is able to acquire new resources and capabilities and, therefore, to grow. So, Information Technology Oy bought new resources and capabilities appropriate to the VoIP test sector and integrated these with capabilities it already possessed. Hence, Information Technology Oy was able to expand its product offering and reduce the risk of being cut off by its largest clients (such as Mobile Oyj).

Second, before the acquisition the great majority of Information Technology Oy's personnel had been located in Europe. However, soon after the acquisition, the geographical focus of the personnel started to change. Because Indian employees are far cheaper than Europeans, Information Technology Oy started to transfer the majority of its production, and a significant share of its R&D, to India. As a result, the firm reduced costs and also the pressure on product price levels. This was important since the increased requirements of the business environment had forced the Information Technology Oy managers to continuously search for new ways to increase the effectiveness of the firm's processes. This again was essential because the telecommunications industry as a whole was suffering, and the firm's customers had financial problems. Hence, the customers applied considerable pressure to prices. As a consequence of the pressure on its prices and the fact that several important customers had been lost due to mergers, acquisitions and bankruptcies, Information Technology Oy had to increase the flexibility of its product prices. The acquisition alleviated the situation by providing access to Indian human resources. So, the firm's management changed its human resource strategy significantly, ensuring that the firm would remain competitive in the future. There was also an additional motive for the acquisition. Although, Information Technology Oy's managers did not mention it in interviews, it is clear that Mobile Oyj's strategic decision to invest significantly in the Indian market also had a major influence on Information Technology Oy's desire to get access to India. In 2004, Mobile Oyj employed only 450 people in India whereas by 2008 that number had risen to over 15000. Today, India holds the distinction of being the second largest market for Mobile Oyj globally and the corporation has three research and development centres in the country. In addition to Information Technology Oy, many other suppliers to Mobile Oyj have also established sales offices and factories in India. So, Information Technology Oy must surely have been aware of Mobile Oyj's plans to expand its operations in India and therefore the firm's management decided to follow its key customer's strategy. After all, it was obvious that Mobile Oyj would need a great number of Information Technology Oy's products in India, a

factor that must have reduced the uncertainty related to the Indian market entry.

Third, the acquisition also provided new sales channels, local staff and new networks for the firm. Furthermore, these resource base extensions can become intertwined with the business environment changes because, again, the Information Technology Oy management had clearly understood that the firm must grow to ensure survival in a very turbulent market situation. The firm's entry into the American market through acquisition was timed perfectly, as the following year the European and Asian markets, which had previously been the primary markets for the firm, stopped growing. However, sales in the American market increased significantly and ensured that the firm's revenue grew in 2005 and 2006.

Fourth, it is apparent that a reflection of dynamic capabilities is, on a more general level, the firm's capability to modify its strategy to match different business environments and market characteristics. An illustration of this was the decision by Information Technology Oy to close down its Japanese joint venture and return to operating through local agents in Japanese markets. Moreover, the firm also reacted to declining markets by launching a totally new business area that focused on selling technology to governmental organisations. Furthermore, the acquisition of Load Measurement Ltd was Information Technology Oy's first international acquisition. This can be seen to reflect dynamic capabilities possessed by the firm. For a long time the firm's management relied mainly on organic growth, but in 2005, the firm's CEO declared that they had also started to view acquisitions as a potential source of growth – indicating a more aggressive direction in the firm's growth strategy.

Finally, Information Technology Oy's management followed its business environment systemically. An illustration of this was the firm's routine created to guide its acquisitions. However, this routine (and a tool created to assist in following the firm's market environment) also had dynamic elements since it was regularly updated. These updates were usually based on information gathered from discussions with stakeholders, from exhibitions or from the internet. So, senior top management collated information in a common document which guided the search for acquisition candidates and ensured the document was regularly updated. Some firms were removed from the document as a result of for example mergers or bankruptcies, others were added in their place. At the same time this helped management to build an extensive picture of the development of the industry as a whole.

A review of the case through the three essential elements of dynamic capabilities studies[25] noted by Zahra et al. (2006), can be tabulated (Table 14)

[25] According Zahra et al. (2006, 921) there are three essential elements that can be related to the dynamic capabilities studies. These are: 1) the ability to solve a problem (an operational capability), 2)

Table 14 Three essential elements of dynamic capabilities in the international growth of Information Technology Oy

Operational Capabilities	*Environmental characteristics/ Triggers for change*	*Change of operational capabilities/ Examples of dynamic capabilities*
Technical capabilities (R&D)	VoIP-investments made by competitors; Need to expand product portfolio	As a part of the acquisition Information Technology Oy bought significant VoIP resources and capabilities and integrated these with its already existing resource base. Therefore the acquisition was also a shortcut to VoIP markets.
Human resource capabilities (Recruiting)	Client's cost-saving programs	Information Technology Oy increasingly began to transfer its operations to India. In practice, routine-level programming was soon being performed almost completely in India, whereas only the most demanding programming tasks continued to be coded in Finland. It can be stated that subsequently, Information Technology Oy was forced to move its production from Finland to less expensive countries because in this business price is a very important factor in purchasing decisions.
Managerial capabilities (Strategic visions)	Decreasing primary markets	Information Technology Oy's management has constantly refined the firm's strategies. Examples include the launch of a totally new business area (products for governmental organisations).
Managerial capabilities (Internationalisa-tion strategy)	Challenges in Japan	Information Technology Oy's management has shown dynamic capabilities by modifying its internationalisation strategies. For example in Japan the firm closed down its local joint venture and returned to operating through agents.
Managerial capabilities (Acquisition capabilities)	The limits of organic growth were on the horizon	Information Technology Oy's management understood that the limits of organic growth were near and therefore they refined their strategy and conducted firm's first international acquisition.

the presence of rapidly changing problems (environmental characteristics) and 3) the ability to change the way the firm solves its problems (a higher-order dynamic capability to alter capabilities).

To summarise, when reflected against the definitions of dynamic capabilities introduced in chapter 2.3.1 of the study (for example Teece et al. 1997 or Helfat et al. 2007), the examples presented above reflect the dynamic capabilities possessed by Information Technology Oy very accurately. In these examples, changes in the firm's resource base were often related to changes in customer requirements (more versatile product offerings, price pressures) or changes in the competitive environment (acquisitions of VoIP technology, new geographical markets). In addition to changes motivated by the firm's external environment, the acquisition also influenced the firm's internal environment. This can be illustrated through management's assumptions that the integration of existing resources and capabilities with acquired ones would result in new product upgrades and innovations. Further, knowledge transfers between old and new personnel improved the effectiveness of the firm in India. In other words, good practices were successfully transferred between the firm's employees despite different cultural and educational backgrounds.

Information Technology Oy's acquisition of Load Measurement Ltd. can be illustrated in the theoretical framework of the study (Figure 7).

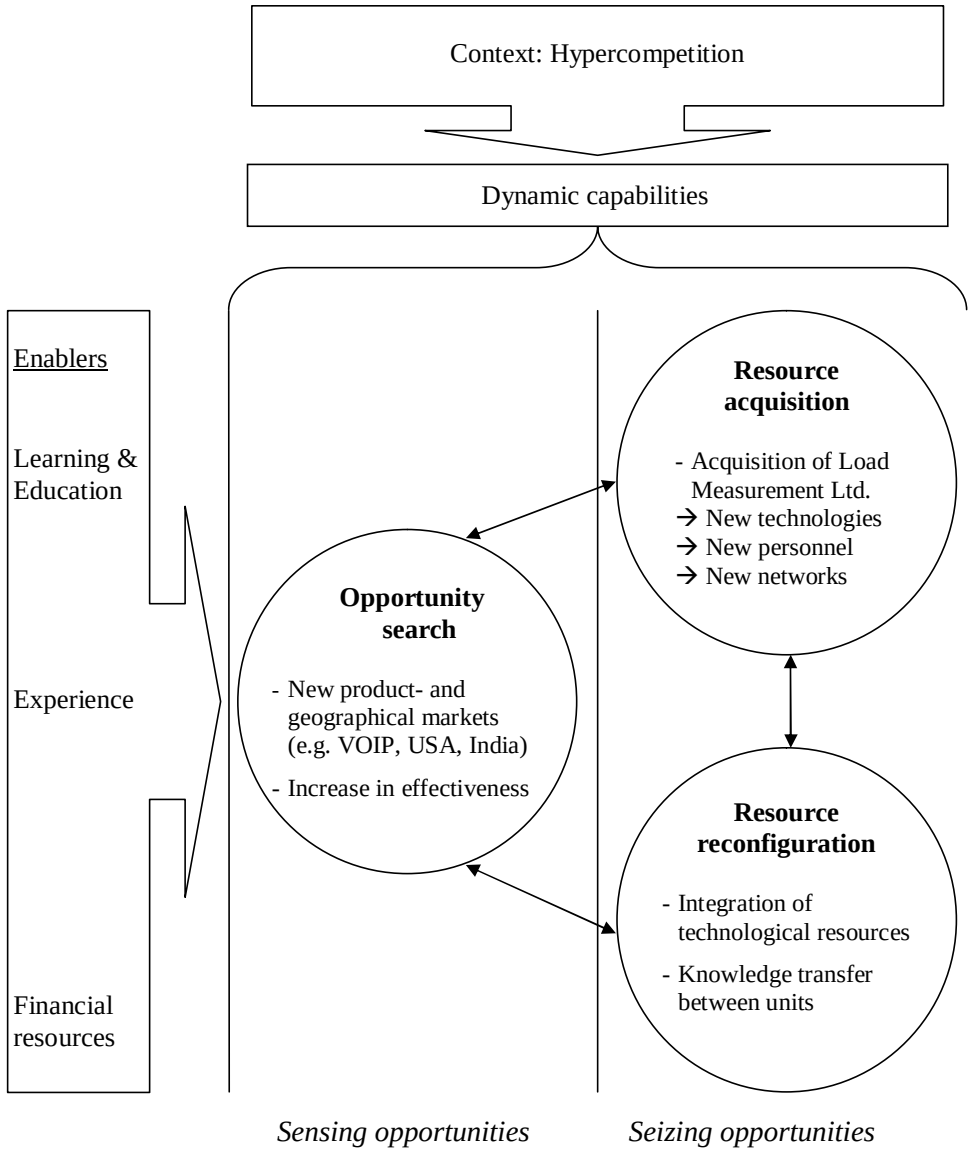

Figure 7 Information Technology Oy's acquisition of Load Measurement Ltd. in the theoretical framework of the study

In summarising the case of Information Technology Oy, it is evident that the firm was able to grow although its industry was no longer growing. In fact, the competitive situation in the industry was so hard that many competitors disappeared altogether. The reasons for Information Technology Oy's survival and growth can be found in its high-quality products, good customer relations

and continuous search of new geographical and product markets. This required dynamic capabilities because the firm's management had to be able to modify its products, processes and internationalisation strategies to remain competitive. When the acquisition of Load Measurement Ltd. is studied in detail, it is apparent that the relationships between opportunity search, resource acquisition and resource reconfiguration were highly intertwined (bidirectional arrows). The acquisition provided new markets and human and technological resources for Information Technology Oy. In addition, the integration of technologies already possessed by the firm with the resources it acquired provided added value to the firm.

4.2 Aluminum Oy – MBO as an accelerator of international growth

Aluminum Oy was established in the early 1950s when the firm's founders had an idea to start manufacturing packages for the needs of the Finnish industry. This chapter describes the MBO deal, which took place in the firm between 2002 and 2003, and its impact on the firm's international growth development during the following years. As Figure 8 indicates, the event was a trigger for the firm's international growth boost. In addition, some background to the MBO is introduced because knowing the history of the firm helps the reader to understand better the changes that took place in the organisation. At the end of the chapter, the recent development of the firm is briefly discussed.

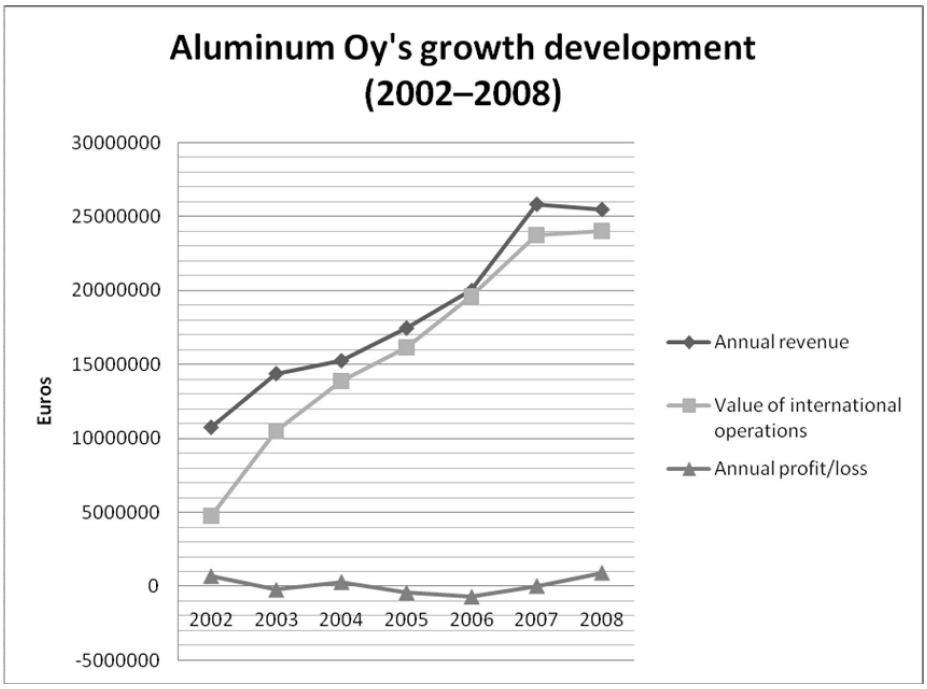

Figure 8 Aluminum Oy's growth development (2002–2008)

4.2.1 Prologue: motives behind the MBO

In 1999, Aluminum Oy had been a subsidiary of a large French-owned corporation for almost 15 years. At that time the firm's Finnish management started to plan the MBO, that is, buying Aluminum Oy's business from the French parent firm. Seeds of the plan had already been sown in 1994 when the ownership structure of the French parent firm faced some changes. Up to that point the French firm had been owned by the French state and Aluminum Oy's management had operated quite independently. The new owners made changes to the firm's culture, and the centralism of management increased so that the French started to control its Finnish subsidiary far more than before. This was a shock to the personnel of Aluminum Oy because the firm had relied on an entrepreneurial management culture throughout its history. In practice, this had, for example, meant that if an employee did not feel that he or she was able to give their best effort in certain tasks, there was always a possibility to transfer inside the organisation. Throughout the firm's history the management had encouraged its personnel to take responsibility for their own work and also to make spontaneous decisions. Suddenly, this was not possible anymore and the Finnish personnel found it challenging to adapt to the new culture.

> *Soon large organisational reform took place. As a result each function, such as production and accounting, had to start reporting directly to the headquarters of the corporation. Local managers had to step aside, local decision making was almost totally prohibited and Paris started to give us very detailed rules and commands.*
>
> *(CEO, firm history, 2002)*

In practice, the French gave orders concerning, for example, how Aluminum Oy should take care of factory cleanliness and industrial safety. French managers, who were often young and just recently graduated from famous business schools, started to visit Aluminum Oy's factory constantly and had ambitious plans for increasing the subsidiary's efficiency. The CEO of Aluminum Oy thought that the reason for their enthusiasm was that they had to prove that they really were talented in order to ensure their career progress *(*CEO, Metallitekniikka, 2003). However, the system they tried to embed into the Finnish factory was very complex and onerous for Aluminum Oy's personnel, who were used to operating in a quite informal way. On the other hand, continual travel between Finland and France, together with other bureaucratic expenses, increased costs and decreased the efficiency of new systems.

A dramatic increase in bureaucracy was just one factor behind the emergence of the plans for an MBO. More dramatic change took place in 1999 when the French parent company started a project that aimed to centralise its aerosol package production. It was obvious that during the project some factories would be closed down. Although Aluminum Oy was one of its division's most profitable units, its distance from France was a real threat to the factory's existence. Moreover, there were no significant home-markets in Finland and the great majority of Aluminum Oy's packages were exported.

There were also other factors making Aluminum Oy's situation worse. The traditionally important Russian market had collapsed in 1998 as a consequence of the country's financial crisis and the Estonian market looked very dark also. At the time, Aluminum Oy's production volumes were exceptionally low, and this made the firm's prospects of survival as a part of the French concern even worse. In this light it was not surprising that the French declared that they were starting to cut Aluminum Oy's operations. For the Finnish managers this was a clear signal that the parent firm no longer had any longer-term plans for their factory. However, Aluminum Oy suddenly managed to get a large order from Poland and this totally changed the situation. Now, the parent firm could not justify any more cuts by citing low production volumes. It is no overstatement to say that the Polish order saved Aluminum Oy, because soon the corporation's German factory was closed down. Aluminum Oy's managers

were shocked by the news, because German package markets are among the most significant in Europe.

> *From the perspective of the corporation, it was a lunatic decision. However, it saved us.*
>
> *(Financial and administrative director, firm history, 2002)*

After the German factory was closed down, Aluminum Oy's role in the corporation increased because the Finnish factory acquired clients as a result of the closure of the German factory. Aluminum Oy's management acknowledged that the Finnish factory was still at considerable risk of being closed down next. The very stiff efficiency targets and continuous pressure applied by French managers highlighted this feeling. Increasing the factory's efficiency was not easy because Aluminum Oy had aimed to improve it for many years already. The Finns knew that something had to be worked out to ensure Aluminum Oy's survival. Finally, a working group was established in Paris. The group consisted of Aluminum Oy's managers, French managers and independent consultants and the common target was to find a solution for ensuring that Aluminum Oy would survive in the future. Aluminum Oy's management introduced several ideas on how the factory could be further developed, but they were not well-received and it again started to seem that closing the factory would be the most likely option from the French perspective. Alternative ideas presented by Aluminum Oy's management were, for example, expanding business operations to new product markets or selling the factory to another international corporation. Finally, the solution was found through the MBO, although it required long and very challenging negotiations.

MBO Deal: No guts, no glory

The first informal discussions concerning the MBO arrangement took place in the late 1990s when Aluminum Oy's CEO and the firm's financial and administrative director thought how they could ensure the survival of the firm. These two key people invented a model where the firm's Finnish managers would buy Aluminum Oy's business. Despite continuous uncertainty around the firm, they knew that the Finnish factory was competitive and that there would be a market demand for their products. However, the first reactions of the French were not very enthusiastic. One reason for the quite negative response to enquiries suggesting MBO was that the parent firm lacked experience in this kind of arrangement. The major concern among the French was whether the Finns really could arrange funding for the deal. Even so, the Finns did not give up and after numerous memos and meetings the French became more positive towards MBO possibility. According to Aluminum Oy's management the French clearly assumed that the deal would help them to

avoid closure costs on the factory, and they seemed quite sure that Aluminum Oy would not survive as an independent firm.

> *We knew that we couldn't report any solutions to the French directly, so we fed the idea bit by a bit. Finally they understood that the easiest way to get rid of us is through MBO.*
>
> *(Financial and administrative director, Interview, 5.5.2008)*

At this point, Aluminum Oy's CEO and financial and administrative director gathered a buyer-group from among the firm's managers. Together there were five people who committed to funding the deal, the CEO himself investing the most. Apart from the founding fathers of the idea, other investors were the firm's technical director, development director and marketing director. At first, the buyer-group set a target to buy both business areas, that is, production of aluminium and aerosol packages. It soon emerged that there would be no reasonable solution to be found concerning the deal about aerosol package production. For that reason, it was mainly excluded from the deal.

> *The French did not want to sell (the aerosol package production). They wanted to keep it and give away this local market (i.e. aluminium package production) which was not their main focus.*
>
> *(Deputy managing director, telephone interview, 18.10.2010)*

Although negotiations were very complex and time-consuming, Aluminum Oy's personnel were kept quite well informed about the phase of negotiations.

> *Following the firm's open policies, we 'external' people were kept quite informed about the turn of events that emerged during the deal.*
>
> *(Production director, email, 13.9.2010)*

Factors that made negotiations challenging were, for example, very tight schedules of the French managers and a change in their head negotiator during the process. Their first head negotiator was a young and ambitious man. Because no consensus could be reached with him, the French changed their negotiator to someone more experienced. Apart from the head negotiator, the French negotiator group also included many other people and each had their own opinions on how the deal should be executed. Aluminum Oy's management acknowledged that the French obviously liked to complicate things, so they decided to play by the French rules. In practice this meant that contract terms were made more complex than would have been necessary. The logic behind this was that the Finns believed that very formal contracts would influence the other party. Aluminum Oy's management introduced a scenario based on the growth of the aluminium package production. The main idea was that the production of aluminium packages would be further developed and personnel operating with aerosol packages would be bit by bit transferred to

aluminium package production. The French were led to understand that aerosol package production would remain, but the scale would be only marginal (Firm history, 2002; Financial and administrative director, interview, 5.5.2008; Member of the Board, interview, 13.11.2010).

The French were dependent on certain aerosol know-how possessed by Aluminum Oy. The Finns presented a plan where Aluminum Oy would temporarily consult and be a subcontractor of the French firm. This plan was of interest to the French and so negotiations progressed. In spring 2001, the counterparts started to really think how the deal could be conducted in practice. However, cross-cultural negotiations again brought their own challenges into play. The Finns had a hard time when trying to manage with the French negotiation style because agendas were not followed in meetings. In other words, the Finns had clear targets and agendas for each meeting, but their counterparts suddenly wanted to discuss some radically different issues. The core idea of negotiations was often lost and time was spent on minor issues. Nevertheless, both parties believed that there was a possible 'win-win' scenario.

> *Although negotiations were long and from time to time we felt that we were stuck, the basic attitude in Paris was positive and it was clear for us that an MBO deal was the most satisfying solution for both.*
>
> *(CEO, Firm history, 2002)*

Apart from the cultural challenges there was another major factor to be taken care of by Aluminum Oy's management; how to gather enough financing to buy the firm's business and premises?

Financier group – the enabler of the MBO

Because the firm had for decades already been part of larger corporations, Aluminum Oy's management did not have experience of the gathering of finance. For this reason, the buyer-group hired a consultant to build an extensive funding package to facilitate the deal.

> *(Gathering the finance) was a challenge, because the amount of money needed, when compared to people's capability to invest in this, was quite high. Although buying premises and machines took money, the most significant challenge was to find enough working capital. Gathering this money, which was needed to start the business, was really challenging...In this business you need to have some buffer all the time.*
>
> *(Member of the board, interview, 13.11.2010)*

The financing group consisted of banks, insurance companies, Finnvera Oyj and the development company of Aluminum Oy's home town. At first, the

financiers were very positive towards the MBO but when negotiations went further and contracts started to be ready, they became more dubious. Suddenly, they wanted to see more calculations and demanded evaluations made by independent professionals. At the same time, Aluminum Oy's management tried to gain more time from the French, with whom they had already set a date for concluding the deal. Negotiations were delayed and Aluminum Oy's first internal deadline had to be extended by six months. Most finance-related problems concerned expressly specifying the legal responsibilities of the various financiers. One illustration of the challenging finance negotiations is that the final meeting took 13 hours. During the meeting some of the financiers could not make up their minds and tried several times to reschedule the meeting. Delays at this point might have risked the negotiations with the French but finally the parties were able to reach a consensus and Aluminum Oy's management was able to close the deal also with the French too (Firm history, 2002). Immediately after, Aluminum Oy bought machines from the French, that were then sold to a finance firm and leased back. This way Aluminum Oy managed to gather enough working capital to start the business.

As a part of the final deal, Aluminum Oy promised to assist the French in starting the production of aerosol packages in the Czech republic. In addition, the contract included a clause that forbade the firm from selling aerosol packages to firms other than the French parent during the following couple of years. After the designated period, Aluminum Oy would have the option of choosing whether the firm wanted to recommence large-scale production. The French sold the factory premises for a very reasonable price. Ownership of the factory enabled Aluminum Oy's management to make longer-term plans because otherwise there would have always been the threat that the French would sell the firm's facilities to competitors.

> *Thanks to the loan we did not need to rent facilities from the French. Without this purchase, they would have had an annoying 'weapon' against us.*
>
> *(CEO, Metallitekniikka, 2003)*

After the deal was finally concluded, Aluminum Oy had to identify new growth opportunities very rapidly. This was a great challenge because the firm's former primary markets in Eastern Europe had collapsed and the firm had also lost its main business line (i.e. aerosol package production) in the MBO deal.

4.2.2 The conquest of Scandinavia and return to aerosol package markets (years 2002–2006)

Traditionally, Aluminum Oy had sold its aluminium packages to Eastern Europe whereas its Swedish competitor, Packaging Ab, had dominated Western Europe and Scandinavia in particular. At the time of the MBO deal Eastern European markets were suffering and therefore Aluminum Oy's managers did not see other alternatives than to conquer Scandinavian markets with a very aggressive entry strategy. This was not the first time that Aluminum Oy had tried to search for new Scandinavian markets. The first attempt was executed in the 1990s but failed because the firm lacked the technology necessary for success.

> *When we tried to attack Sweden the first time, we noticed that we did not even have machines to produce packages used there. The scale was so much larger.*
>
> *(Financial and administrative director, interview, 5.5.2008)*

After the MBO deal Aluminum Oy was ready for the second attempt on Sweden. During the previous couple of years, the firm had managed to develop better machines and now they already had some features that the competitor did not. For example, they enabled Aluminum Oy to use more colours in its packages. Moreover, French methods had developed Aluminum Oy's processes, and ideologies such as continuous improvement and 5S were implemented in the firm's production.

At the same time, the Swedish competitor did not seem to believe its Finnish competitor would be a real threat. The Swedes, for example, believed that Aluminum Oy would not have enough production capacity to operate significantly in the Scandinavian markets. Nevertheless, at the same time, the Swedish competitor's own business was in a quite chaotic state.

> *They had their own troubles and things did not go too well. They changed CEOs each year and were missing the line... They faced ownership changes all the time and they were lacking solidity, which is appreciated by clients. The reason we got their clients was our delivery certainty.*
>
> *(Member of the board, interview, 13.11.2010)*

The second attempt to conquer Scandinavia became a real success. Even in 2002, Aluminum Oy won many significant clients from the Swedish competitor. The biggest deals were worth 2.5–3 million euros. As a result, in 2004 Aluminum Oy already controlled over 60 per cent of the Scandinavian market (Financial and administrative director, interview, 5.5.2008; Deputy managing director, telephone interview, 18.10.2010). The importance of the

Scandinavian markets to the firm's growth and survival can be illustrated by studying the firm's financial statements (2003, 2004 and 2005). In 2002 over half of Aluminum Oy's revenue came from Finland whereas in 2004 the figure was only about 10 per cent (Figure 9).

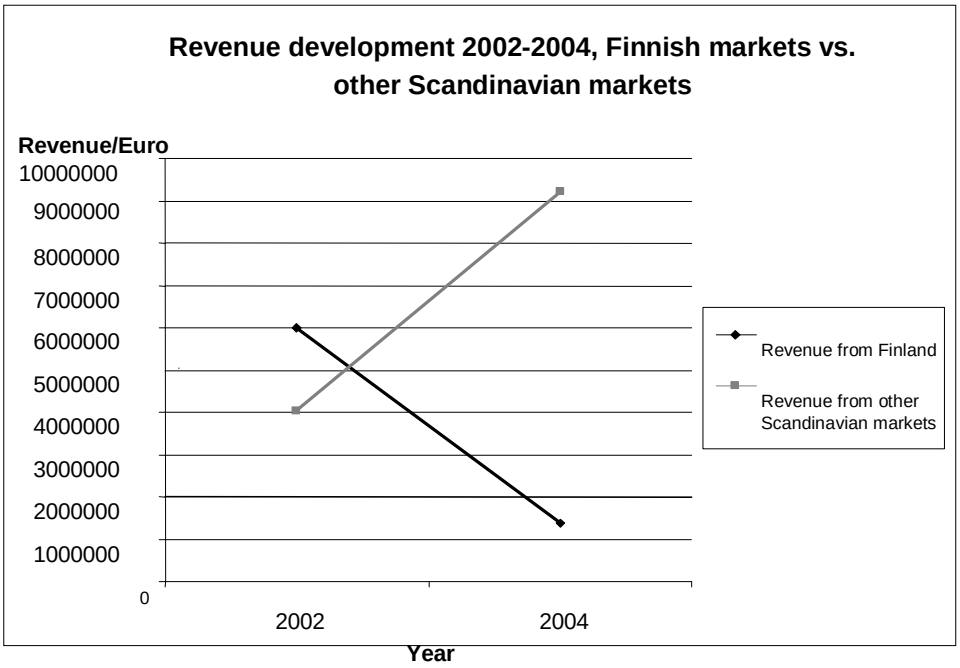

Figure 9 Aluminum Oy's revenue, Finnish markets vs. other Scandinavian markets

The Swedish competitor did not give up and soon hit back. However, their situation was not an easy one because Aluminum Oy had made long-term supply agreements with its new clients and therefore it would not be possible for the Swedes to win those clients back until the contracts terminated. The firm suffered badly and almost went bankrupt. However, Packaging Ab's counter-attack led to a price war where both firms were forced to lower their prices. Quite soon this caused problems for Aluminum Oy's finances.

> *Competition against the Swedes felt like suicide, when you remembered the good old times when markets were shared by consensus and both were doing well.*
>
> *(Production director, email, 12.9.2010)*

This was also illustrated in the interview with the financial- and administrative director when he declared that from the perspective of the firm's growth,

the competition within the industry was both unhealthy and clearly the most constricting factor (Financial and administrative director, telephone interview, 2004). After a while, the competitive environment normalised because Packaging Ab noted that they didn't have the resources to compete with Aluminum Oy in the markets with low prices. Aluminum Oy's conquest of Scandinavia can be summarised through the following comment:

> *Our business plan worked surprisingly well, but it (the Scandinavian market) was our only chance to survive. (The aluminium package) was the product we were able to buy (from the French parent firm) and we had to grow with it. Scandinavian markets were our only option and our competitor controlled the market, so we had to conquer those markets. We simply didn't have much choice.*
>
> *(Financial and administrative director, interview, 5.5.2008)*

Although the majority of Aluminum Oy's international growth after the MBO came from aluminium package sales to Scandinavian markets, the firm also resumed aerosol package production immediately after the prohibition period agreed with the French expired. Initially, Aluminum Oy managed to buy one aerosol package production line from the French. Restarting the larger production was easy because the firm had always produced small amounts of aerosol products as a subcontractor of the French. The French were also willing to sell one production line which was already located in Aluminum Oy's factory, because moving and restarting the line somewhere else would have been almost as expensive as buying a new production line.

The return to the aerosol package market had been the plan all the time although it was secured from the French during the MBO negotiations. The return soon started to irritate the French who had thought that Aluminum Oy would not have enough resources to buy several production lines and therefore make a noteworthy return to aerosol package production (Financial and administrative director, interview, 5.5.2008). This view is understandable because Aluminum Oy invested only about 10 million euros in the Finnish factory between 2002 and 2008 (Fennia-lehti, 2007). This is not very much given that the purchase of a new production line normally costs between 6 to 8 million euros (Financial and administrative director, interview, 5.5.2008). However, Aluminum Oy's management has been innovative and the firm has developed a concept that dramatically decreases the expenses related to production line investments. The core idea is simple; Aluminum Oy buys used machines from low-cost countries (e.g. from Poland) and then modifies them to meet today's demands. This can be considered a clear competitive advantage because the firm's competitors do not do likewise. Imitation of the concept is challenging because the process requires complex modernisation capabilities. Evolving environmental laws set challenges for the modernisation

of old machines. Aluminum Oy has developed these skills and routines during the firm's long history.

> *That (modernisation of machines) still improves our position. I started to work for the firm as a planner in 1979 and even then my job was to renew machines and to increase their efficiency.*
>
> *(Production director, email, 12.9.2010)*

Since 2004, Aluminum Oy's growth has come mainly from the sales of aerosol packages whereas demand for aluminium packages has remained quite stable. In 2005, the firm invested in a new (pre-owned) production line, which was bought from Sweden. Modernisation of the line took longer than expected and it was not ready until 2006. Again, in 2006 Aluminum Oy bought its third production line for aerosol packages. These investments were a clear signal that the firm's management had decided to look for their future growth from the aerosol markets. In general, investments in production lines together with the increased price of aluminium, have been the main reason that the firm's has had some unprofitable financial years. Aluminum Oy has certain currency and aluminium price indexes as express terms of its supply contracts and consequently the firm is partly protected against radical changes taking place in raw material prices and currency markets (Financial statement, 2006). Nonetheless, changes in these factors have an immediate impact on the firm's business.

> *From the client's perspective, we are naturally less attractive if the (Swedish) krona is 12 to the euro than if it is 9.30. (Clients) need more krona to pay our bills… Markets are quite hot and as a result, the prices of raw materials are increasing.*
>
> *(Deputy managing director, telephone interview, 18.8.2010)*

The return to aerosol package production meant that the geographical spread of Aluminum Oy's client base changed again, from Northern Europe to a more global structure. Whereas its aluminium packages are sold mainly to Scandinavia and the Baltic countries, aerosol packages are sold around the world. Germany is a large market for aluminium packages but Aluminum Oy's management has decided to operate on only a small scale in Central Europe because the firm does not want to attract local firms to Scandinavia (Financial and administrative director, interview, 5.5.2008).

4.2.3 Epilogue: return to profitability (2007–2009)

Aluminum Oy succeeded in keeping its revenue quite stable during the global financial crisis. It is worth noting that the firm was able to make its business

profitable at the same time. There was a small decrease in the firm's number of personnel between 2007 (166 persons) and 2008 (160 persons). In 2007, the firm's financial and administrative director (telephone interview, 2007) declared that the firm had put a damper on its growth orientations because after the growth peak it was time to stabilise the business. The limits of organic growth were near and warehouse space, for example, was reaching its limits. Global package markets are not growing anymore and radical package innovations take place very rarely. Another factor limiting firm growth is related to financing. The owners of Aluminum Oy have been quite unwilling to expand the firm's ownership (Financial and administrative director, telephone interview, 2007) and therefore options to acquire further external funding are very limited. Despite the reduction in the management's growth plans, the firm still searches for new clients and business opportunities. In 2009 Aluminum Oy again inaugurated a new production line, acquired in the same manner as its predecessors. At about the same time, Aluminum Oy also declared that the factory was changing its energy sources to more environmentally friendly variants. The firm had already promoted the environmental friendliness of its products and, for example, now its varnishes were made more ecological.

Although the firm made a profit in 2007 and 2008, in the financial statement the managers declared that they believed that during 2009 the firm's revenue and profits decreased slightly as a consequence of the recession. In addition, the price of aluminium was lower than ever before and therefore the future price developments were hard to predict (Financial statement, 2008). The prediction of forthcoming problems proved correct, and Aluminum Oy's revenue and profits had in fact decreased quite radically during 2009. The main reason was that prices of raw materials had increased much more than the firm's management had expected and it took some time to adjust the firm's prices to better reflect the new level. In addition the exchange rate of the Swedish krona was at the same time favouring the Swedish competitor (Member of the Board, interview, 13.11.2010).

By 2010, the competitive situation in Scandinavian markets had changed slightly. The Swedish competitor had won back one significant client in 2008 and as a consequence it was again the Scandinavian market leader.

> *When we poached clients, contracts were made for many years. That is how clients make their decisions, they do long supply contracts and then we just start to deliver… In the biggest hassle in 2008 we lost a major Scandinavian client. So the balance has changed again and now the Swedes have a bit more volume than we do. This will never end, you just have to always poach (clients) and clients are those who benefit from this. Both are suffering in turn a bit more.*
>
> *(Deputy managing director, telephone interview, 18.8.2010)*

> *Losing one client can change the relative strength of these two quite significantly.*
>
> *(Member of the board, interview, 13.11.2010)*

The market situation became much clearer in 2010 and according to Aluminum Oy's deputy managing director the market environment was similar to 2008. In 2009 many firms were forced to cut down their operations, but in 2010 the demand had again clearly increased. However, profits were now lower than the firms had become used to during the industry's previous growth period (Deputy managing director, telephone interview, 18.8.2010).

The main question determining the industry's future is whether plastics will replace aluminium packages. Recently plastics have been condemned owing to their larger carbon footprints than aluminium. Therefore, the rise in importance of environmental values has been a positive trend from the perspective of Aluminum Oy. The firm's management also sees that there is still growth potential in the aerosol package market and Aluminum Oy is prepared to make new investments. However, first they want to balance their finances (Member of the Board, interview, 13.11.2010).

4.2.4 Organisational processes in Aluminum Oy's MBO deal and Scandinavian market entry

When the case of Aluminum Oy's MBO deal is studied from the viewpoint of the organisational processes underpinning dynamic capabilities, it seems clear that managers of the firm had interpreted signals given by the French parent company as meaning that they had to act to ensure the firm's survival. This chapter reports the findings on the role of Aluminum Oy's organisational processes in the MBO deal and its consequences in more detail.

Opportunity search

When Aluminum Oy's opportunity search processes are studied on a general level, it is evident that the firm's management relies very much on intuition in their decision making. This has been an intentional choice.

> *It works much better when you collect the data into your head because then you are processing it. Intuitiveness is born by itself when you are saving the information. If you write it down, you don't see the whole picture.*
>
> *(Financial and administrative director, interview, 5.5.2008)*

> *This 'aluminium tube' world is very small. Everyone knows everyone...And our CEO has worked for almost everyone during his career. He has worked 30 years in the industry and been in Paris, London and the United States.*
>
> *(Member of the board, interview, 13.11.2010)*

Although the firm's managers regularly receive market reports from the industry's European association, they do not follow their market environment very intensely through official reports but tend to gather information mainly from more informal sources. These sources are, for example, discussions with clients, sales representatives, agents or suppliers and participation at exhibitions. The firm also gives its employees a chance to express their developmental ideas. Innovations and ideas coming from employees are considered in a working group. If the idea is found to be useful, the inventor is rewarded. The highest rewards so far have been worth a couple of thousand euros but according to the firm's management there are no upper limits if someone succeeds in inventing a revolutionary innovation. An example of these new ideas provided by the firm's personnel was the reorganisation of packaging processes. Absence due to illness was radically decreased after the firm's employees were given the chance to plan packaging processes by themselves.

Despite using few formal scanning systems, the firm's management seemed to be very aware of the recent changes in the industry. This reflects how management shares its thoughts on the industry frequently, albeit informally. This is possible because managers meet almost daily and the firm is operating in an industry that seems to change slowly. Another advantage is the composition of the firm's board, which currently has only three members, two of them being the firm's CEO and the deputy managing director. Therefore decisions can be made very quickly when deemed necessary. In other words, the amount of delaying bureaucracy is very low in the organisation.

> *Decision making is simple. They (management group) make a decision and call me. I don't want to resist because I have my hands full with other things.*
>
> *(Member of the board, interview 13.11.2010)*

When Aluminum Oy's opportunity search processes are studied, in particular in the context of the MBO deal (and its instant influences), the following findings are made:

Aluminum Oy's management interpreted the signals emerging from the French parent company to mean that the firm was in great danger of termination. However, the managers had already been in business for a very long time and seemed sure that there would be enough space for the firm in the markets. After all, Aluminum Oy was among the most profitable units of the corporation's aluminium division. The Finns also saw that although the French managers intended to increase the factory's effectiveness, the changes had had the opposite effect, even though Aluminum Oy had always had an entrepreneurial culture. High levels of bureaucracy increased the costs (e.g. travelling and administrative costs) and decreased employee satisfaction. Year-by-year it became more obvious that the French parent firm didn't have long-term plans for Aluminum Oy's business and sooner or later the factory would be closed. At the time, the firm's operations management started to consider alternatives for ensuring the survival of the firm. Soon the firm's CEO and financial and administrative director decided that an MBO was clearly the most promising idea.

An illustration of the firm's managerial capability to interpret its business environment was the management's decision to make long contracts with its new Scandinavian clients, so negating the threat of an immediate counter-attack by its competitor. Although there are certain risks when lengthy contracts are made (related to currencies and prices of raw materials), Aluminum Oy's management protected the firm from by astute contract drafting. The long contracts were especially important because the Swedish competitor was part of a larger corporation and might have had some comeback from its parent firm if there had been a long and price war between the firms. Now, of its longer contracts gave Aluminum Oy more time to prepare for the counter-attack. In fact, Aluminum Oy was aware of Packaging Ab's financial situation as it had at one point considered it a potential takeover target. As a result, Aluminum Oy's managers knew that on its own, Packaging Ab could not conquer the markets, at least not immediately.

Resource acquisition

It seems that the firm's managers were right when they identified a clear lack of efficiency in Aluminum Oy's operations at the time of French ownership. This is illustrated when the development of the firm's revenue and staff numbers are compared. The comparison indicates that right after the MBO deal the firm employed slightly fewer than 150 people and its revenue was less than 11 million euros. However, in 2008 the firm employed about 160 staff but the revenue was about 25 million euros. The difference is surprisingly high.

The firm's senior management has remained the same since the MBO deal. In 2006 the firm strengthened its management group by recruiting its current

deputy managing director. He had already been working with Aluminum Oy for about 25 years and had also participated in the MBO deal as a representative of one of the financiers, so knew the business and the firm very well. Most recruitment has, however, been of blue-collar workers.

Aluminum Oy's management states that working with aluminium needs to be learned in practice, so they decided to train their new employees inside the firm. The main reason for this seems to be that aluminium as a raw material is very challenging to work with and the learning-by-doing method trains employees better than any school. Aluminum Oy created its own training system in the 1980s and after the MBO the system was rationalised and updated. At the same time Aluminum Oy also utilised the ESF (European Social Fund) to finance the project where the firm retrained its aerosol package employees to learn how to produce aluminium tubes too.

> *We certainly have good schools in Finland. However, those who have come to us from the schools have said that they have not been very useful (from the perspective of working in Aluminum Oy). Aluminium is an excellent raw material. It is light and re-usable but very challenging to machine. Skilful employees do not come straight from the school.*
>
> *(Production director, Fennia, 2007)*

> *A good guy learns all the necessary things in five years; however, some never learn those… It is more like learning by themselves. Sometimes we organise courses to teach some special issues but the primary way is learning by doing.*
>
> *(Financial and administrative director, interview, 5.5.2008)*

It is interesting to observe that the management of Aluminum Oy seems to be relying on senses and experience instead of formal methods in their opportunity search processes management, whereas in the human resource development field, the firm utilises quite formal tools. An illustration of this is a know-how matrix which helps the management follow the development of an employee's skills and addresses training of the people who need it most. Aluminium Oy's training process starts at the job interview phase where current employees are involved in interviewing potential candidates. The aim is to find the most suitable tasks for each employee from the start. New candidates are asked to demonstrate their skills at the interview. For example, if the firm is hiring new packers, the job interview includes some packing and the firm's experienced packers evaluate the performance.

> *When we look for people for the packaging function, the candidates have to pack during the interview. Other employees are the best evaluators of how well the candidate is doing and on the other hand also the candidate sees what kind of job he/she is applying for.*
>
> *(Production director, Fennia, 2007)*

New employees go through an induction programme that familiarises them with the firm's people and routines. An important phase also is safety training provided by Aluminum Oy's quality manager. This training phase includes, for example, instructions concerning how to treat chemicals and how to protect their hearing. Each new employee has their own trainer who gives in depth training on every task needed in the job. After the new employee has learned a certain phase, the trainer fills in a familiarisation document. Depending on the tasks, there can be 20–40 different phases. Trainers do not take short cuts because they would suffer from mistakes made by their 'protégé'. Trainers are also rewarded for the successful completion of training stages. Aluminum Oy has also recently used external specialists for some training.

Looking at the firm's resource acquisition processes in the context of the MBO, we can see several crucial factors that played a major role in the process. After the management of Aluminum Oy had finalised the MBO plan, they had to collect sufficient resources to capitalise on the opportunity. The most essential resources were related to financing since the French seemed quite sceptical that Aluminum Oy's management would be able to gather enough capital to buy the business. Challenges concerning the financing of the MBO deal were highlighted because Aluminum Oy had always been a subsidiary of larger corporations and therefore its management had not gained any experience or know-how concerning financial issues. They first tried to gather funds by themselves but quite soon, after the recommendation of an insurance company, they decided to hire a very experienced consultant to put together a financial package needed for the MBO. This was a good decision as Aluminum Oy's management did not have even a basic knowledge of financial issues (Member of the Board, interview, 13.11.2010). The need for capital decreased significantly when the aerosol business was largely excluded from the deal. The main reason for this was that the French wanted to protect this business area, which was more important to them than the aluminium package production. Therefore, the French transferred the aerosol package production lines from Finland to the Czech republic. One production line was left in Finland and as a part of the contract, Aluminium Oy promised to act as a subcontractor of the French firm between 2002 and 2004. Immediately after the banning contract with the French expired, Aluminum Oy bought a single production line from the French, soon to be followed by two other pre-owned

production lines, which made it possible for the firm to return to the aerosol package market.

From the viewpoint of financing there are at least a couple more examples that illustrate the role of managerial capabilities in the acquisition of financial resources in Aluminum Oy's growth. First, during the MBO negotiations, Aluminum Oy's management succeeded in getting the firm's home town to guarantee a loan worth over a million euros. This kind of guarantee was very rare, but the firm's role as a local employer was so significant that the town promised to guarantee the loan, which again ensured that Aluminum Oy was able to buy the factory premises from the French. Even the town councillors admitted to the local press that they were operating in unknown legal territory (Etelän Uutiset, 2002). Yet the strategic importance of owning their premises was very significant for Aluminum Oy's future. If they had only rented the premises from the French, there would have been a continuous threat that the French would sell them to Aluminum Oy's competitors which again would have made continuing the business impossible. However, the French were also willing to sell the premises and the price was relatively cheap.

> *The French thought that Finland was a peripheral market and they needed to get rid of it (Finnish factory). Although Aluminum Oy was one of the most profitable units in their structure, it was small and in the North. They did not want it.*
>
> *(Member of the board, interview, 13.11.2010)*

The financing capability of Aluminum Oy's management was demonstrated by its targeting financing from the firm's clients.

> *Our global clients want to ensure that they will get their raw materials in the future. They are surprisingly willing to fund our investments. Of course we have to pay them back but this is clearly an easier way to gather capital than dealing with the bank. This also increases the involvement of the client.*
>
> *(Financial and administrative director, interview, 5.5.2008)*

Organising financing for new investments is challenging because the firm's products require large amounts of working capital and the client's payment terms are often long. Borrowing or getting guarantees from clients may offer a solution to this problem. In practice this has often worked so that large international clients give repurchase commitments for certain machines which again decrease the risk from the viewpoint of the financier. This is important because selling these kinds of specialised machines would be very challenging for financiers. However, the financial crisis meant clients became less willing to participate in financing the firm's investments, and unstable financial markets make it an unlikely avenue of financing for the foreseeable future.

(Deputy managing director, telephone interview, 18.10.2010; Member of the Board, interview, 13.11.2010).

> *I don't believe that we will go back to this and I think that the business is going to be much tougher. We do not know what is going to happen next, markets are playing a hard game. Suspicion towards the Euro is increasing and it may mean that margins and interest rates increase.*
>
> *(Deputy managing director, telephone interview, 18.10.2010)*

Resource reconfiguration

Aluminum Oy operates in an industry where radical innovations take place only very occasionally. Smaller adaptations are needed all the time because the legal environment becomes ever more environmentally demanding. For example, the European Union's environmental standards have forced the firm to change the formulae of its packages and also changes in recycling regulations have to be incorporated into the firm's processes. These legal issues also make it challenging to modernise the old machines. In practice, the firm has to solve how to deal with different issues related to, among others, protection of its production lines.

Although the firm's products are standardised in terms of size and safety aspects, there are also opportunities for customisation. For example, clients can choose from a range of varnishes. Aluminum Oy's product development is often conducted with clients, who are often also the source of new ideas. In addition, the firm itself has very few resources in R&D as there is only one specialist working on product development issues full-time. The firm has also cooperated with Finnish universities concerning product and process development.

Among the most significant factors supporting growth are the firm's modernisation capabilities. In this process, the firm's resource acquisition and resource reconfiguration processes are integrated and a used machine, bought cheaply, is modernised in the premises of Aluminum Oy.

> *Aluminum Oy's advantage is that it has very good capabilities for modifying used machines. It can transform four colour machines to six colour machines. Possessing this kind of know-how is very rare and it is a great advantage that their technological capabilities have been very high.*
>
> *(Member of the board, interview, 13.11.2010)*

This modernisation requires capabilities that have been developed during the firm's history therefore the process is very difficult for competitors to imitate. Apart from this, the firm's competitors seem to be more focused on their core business (production) and buy their machines from machine

suppliers. These modernisation capabilities provide a competitive advantage to Aluminum Oy because the firm has been able to build its factory cheaper than its competitors. Compared to the Swedes, Aluminum Oy's machines are faster and all their machines can print six colours whereas the Swedes have only one such machine (Member of the Board, interview, 13.11.2010).

To summarise, Aluminum Oy is operating in such a mature and slowly changing industry that the resource reconfiguration's role is not as high as it may be in high-tech industries. Consequently, the role of new product and process innovations in the firm's business is rather small and the firm's international growth is based more on the management's opportunity search capabilities than the firm's resource reconfiguration capabilities. In other words, conquering new markets has not required significant new product innovations but entrepreneurial attitude and the ability to take risks. And yet, modernisation capabilities have played a very significant role from the viewpoint of the firm's effectiveness.

4.2.5 Dynamic capabilities in the MBO and Scandinavian market entry processes

Enablers of dynamic capabilities

Several enablers of dynamic capabilities can be identified from Aluminum Oy's MBO process and its consequences.

First, Aluminum Oy's management had already worked for the firm for decades and experienced several changes of ownership. Therefore, it is argued that the firm's managers already had a clear picture of how the factory should be managed. At least it was clear that the very bureaucratic French management style was not optimal for the Finnish factory, which was used to operating in a quite flexible working culture. Managers saw that more bureaucracy lowered the effectiveness of the factory and consequently prevented Aluminum Oy from achieving better performance. In other words, managers had clearly perceived and analysed internal changes that had taken place in the firm and discovered that there were more efficient ways to manage the factory than the French style. On the other hand, the managers saw that if they did not do anything the factory would sooner or later be closed down. It is argued that the management's vision, based on their experiences of how the factory could perform better was a major motivator behind the MBO. It follows that the lengthy experience in the industry and international business of key people was very valuable during the MBO negotiations when cultural differences emerged.

Second, the successful Scandinavian market entry – an essential factor behind the international growth – was aided by the previous unsuccessful

attempt to do business in Sweden. It is clear that Aluminum Oy learned many essential things during the first venture into Sweden, so the previous experience provided knowledge of which dimensions of the business needed to be developed further to achieve a significant market position in Scandinavia. The firm managed to develop its products to better suit Swedish taste. In fact, the firm was able to produce more versatile products than its competitor and also sell them more cheaply. Another factor to note is that the earlier market attempt brought Aluminum Oy into contact with buyers in the market, and so its name was familiar when it re-entered the market later.

> *You have to be a really tough guy if you start from scratch and convince your clients immediately. I believe that it was the second round when clients started to take us seriously and to think that we really were a respectable alternative.*
>
> *(Deputy managing director, telephone interview, 18.10.2010)*

The firm's earlier unofficial negotiations related to the acquisition of the Swedish competitor had provided important knowledge concerning the resources of Packaging Ab, and therefore Aluminum Oy's management knew that the main competitor had financial problems. This was important particularly when Packaging Ab declared a price war against Aluminum Oy. It is argued therefore that the learning capabilities possessed by the firm were an essential background factor for the successful conquest of the Scandinavian market share.

The third essential enabler of the MBO deal was the financier group gathered for the purpose. Aluminum Oy's management had no experience of this kind of operation and decided to hire an experienced consultant to do the work. Particularly important was the role of the firm's home town as a guarantor of the loan that enabled the acquisition of the factory premises. However, persuading the town government required a good deal of justification and strong negotiating skills from the consultant and Aluminum Oy's management. Along with the consultant, the firm's management was able to gather enough financing to acquire premises and machines. Selling machines to the financing company and immediately leasing them back solved the main challenge, which was gathering enough working capital. Gathering enough finance was a prerequisite for the whole MBO deal and it also enabled Aluminum Oy to start its business operations as an independent firm.

Examples of dynamic capabilities

The next section of the study introduces some examples of the dynamic capabilities identified from the case.

The first example of dynamic capabilities applies to Aluminum Oy's managers at a more general level. It seems that they have been continuously

searching for new business opportunities. In practice, these studied opportunities have been product innovations, new geographical markets and opportunities for acquisitions. The search has not been very systematic but has relied more on intuition. In other words, managers gather information mainly from informal sources (e.g. discussions with clients, agents, employees etc.) and then they combine these market signals to make more holistic mental pictures. The management's intuition has guided the firm quite successfully. The concrete illustration of this is found in the firm's business plan. The plan made for the financiers of the MBO included plans concerning market entry into Scandinavian aluminium package markets as well as the return to the aerosol package arena. The firm's managers knew that the survival of the firm would require fast growth, and an aggressive entry into the Scandinavian markets was seen as the only option because other possible markets were suffering from a more dramatic downturn. Both plans were conducted soon after the MBO and reality followed the business plan surprisingly well. An indication of the management's capability to follow the developments in its industry is also the continual modifying of the business plan to meet changing market conditions. It seems that in this case the plan is not just a dusty piece of paper that can be introduced to financiers when more funds are needed. The management has also shown that they can act radically when needed. For example, in 2008, Aluminum Oy laid off 40 people when they suddenly lost an important Scandinavian customer and the management saw that production had to be modified immediately to adjust to the decreased demand. This kind of fast reaction to the changing environment is important from the perspective of minimising damages when the firm faces surprising and unpleasant challenges.

Study of the role of dynamic capabilities especially in the MBO process, reveals the following:

First, different forms of idea generation capabilities were needed to complete the deal successfully. An illustration of this is found in the negotiations between the Finns and the French. Aluminum Oy's managers knew that they had to convince their sceptical counterparts that their solution (the MBO) was the best alternative available. In practice this demanded, apart from introducing documents related to financing, that Aluminum Oy's management increased their credibility in the eyes of the French by creating more complex contracts than would have been necessary. The reason for this was that the managers' earlier experiences of negotiations and cooperation with the French had taught them that the French like to complicate things more than is necessary. In addition, analysis of Aluminum Oy's market entry into Scandinavia illustrates that the firm was able to make long-term contracts with its new clients. This suggests that the firm's managers knew their firm's compe-

tition environment well and the contracts were a strategic move to prevent the local competitor from hitting back immediately. The negative side of longer contracts is that prices of raw materials can change rapidly and the evolution of the price is challenging to predict. Although Aluminum Oy's contracts included some clauses protecting the firm from the radical changes, there is still always a time gap between price increases and the opportunity to modify contracts. Aluminum Oy's management clearly saw that the risk of radical price increases in raw materials was significantly smaller than losing new clients to the Swedish competitor.

Third, Aluminum Oy's rapid return to the aerosol package market required the integration of acquired resources with already existing capabilities. In this case, the firm would not have had enough financial resources to buy the new production lines needed. However, buying old production lines cheaply and then modernising them to meet current market demands solved the problem. This saved a significant amount of capital. This is a good example of the opportunities SMEs have to increase their growth through resource reconfiguration processes; something that is necessary because they often have very limited chances to acquire new resources. In this case, the firm's modernisation capabilities have developed over many years and are an intangible combination of resources and capabilities. As a consequence, copying this competitive advantage is very difficult. In practice, competitors have so far bought their production lines at more expensive prices and it seems that they do not possess the will or the capabilities to follow Aluminum Oy's practice of modernising machines. Another example concerning the role of the firm's technological capabilities in its international growth is its capability to improve its production technologies to better match Scandinavian requirements. The first (unsuccessful) attempt to conquer Scandinavia revealed that the firm had to be able to produce more colourful packages for Scandinavian markets than were necessary for Eastern European markets. Therefore, the firm upgraded its machines and soon Aluminum Oy produced more colourful products than its Swedish competitor.

Fourth, immediately after the MBO was completed, Aluminum Oy radically changed its training systems. Currently, training starts from the job interview and the process is standardised. Depending on the tasks, training includes about 20–40 different phases. Aluminium is a challenging raw material to handle leading to a particular emphasis on learning-by-doing during the induction programme.

Table 15 analyses Aluminum Oy's case through the three essential elements of dynamic capabilities studies suggested by Zahra et al. (2006; see Chapter 3.6).

Table 15 Three essential elements of dynamic capabilities in Aluminum Oy's international growth

Operational Capabilities	*Environmental characteristics/ Triggers for change*	*Change of operational capabilities/ Examples of dynamic capabilities*
Management capabilities (Financing capabilities)	MBO-plan	Aluminum Oy had to change its financing routines. Earlier it had been a part of a large corporation but now it had to learn how independent SMEs finance their businesses. Examples of these new funding strategies were machine leasing and finance negotiations with large clients.
Management capabilities (Strategic visions)	Collapse of Eastern European markets & expiry of prohibition period with French	Alumium Oy's strategy became more aggressive and it conquered new markets in Scandinavia. In addition, the firm conducted a strategic move and returned to aerosol package production as soon as it was possible. This expanded the firm's markets from a Northern European base to a more global one.
Management capabilities (Negotiation routines)	MBO-negotiations and contracts with new clients	Aluminum Oy's management was able to modify its contracts depending on the situation. Contracts with the French were more complicated than necessary which was seen to increase Aluminum Oy's credibility. With new Scandinavian clients, the target was to make long-term contracts to be prepared for any Swedish competitor counter-attack.
Technological capabilities (R&D)	Lack of financial resources to buy new production lines	Aluminum Oy possess good capabilities for modifying and modernising used machines. As a consequence it has been able to build its factory cheaper than its competitors. In practice, this modernisation know-how enabled for example Swedish market entry because the firm was able to transform four colour machines to six colour machines.
Human Resource capabilities (Training)	MBO	Aluminum Oy radically updated its training system right after the MBO was sealed. Currently the system is quite standardised and the main emphasis is on learning-by-doing methods.

To summarise, when compared to the definitions of the dynamic capabilities introduced in chapter 2.3 of the study (for example Teece et al.

1997 or Helfat et al. 2007) the findings presented in the current chapter clearly illustrate the dynamic capabilities possessed by the firm. Each example referred to above is clearly the firm's response to the changing business environment. For example negotiations with the French reflected Aluminum Oy's managerial dynamic capabilities while the firm's managers were able to modify their behaviour (e.g. modifying contracts) so that it increased their credibility from the perspective of the French. Acquiring old production lines and then modernising them to meet the requirements of modern markets again illustrated the firm's capabilities to overcome the financial challenges through innovative capabilities. After all, the integration of acquired resources and pre-existing knowledge resulted in a process that enabled significant cost-savings, which again made it possible to enter the market for aerosol packages. Finally, Aluminum Oy's MBO process is illustrated in the theoretical framework of the study (Figure 10).

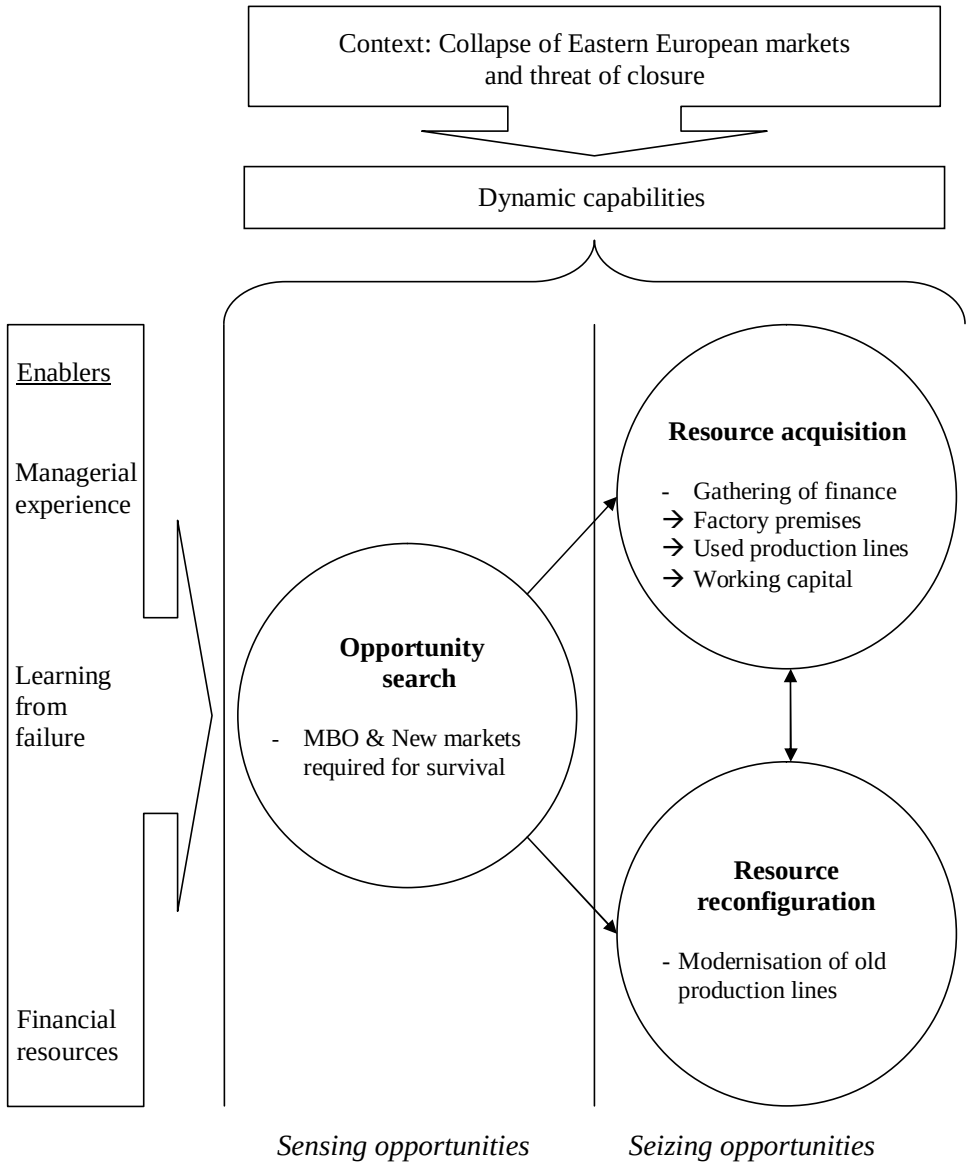

Figure 10 Aluminum Oy's MBO and its consequences in the theoretical framework of the study

In this case, the studied processes were not as intertwined as in some other cases. Instead it can be said that opportunity search processes played a crucial role in the firm's growth. The firm's management found no rational alternatives for ensuring the Finnish factory's long-term survival other than conducting the MBO deal and searching for fast growth from new markets.

Seizing these opportunities required new resources such as financing and acquiring pre-owned production lines (a one-way arrow between opportunity search and resource acquisition).

Acquiring pre-owned lines was necessary, since Aluminum Oy would not have had enough financial resources for the acquisition of new production lines needed for the return to aerosol package markets. The solution to the problem was found in the technological capabilities possessed by the firm. Aided by these capabilities, the firm was able to modernise used (and cheaper) aerosol package production lines (arrow). Aluminum Oy was also able to modernise the aluminium package production lines and therefore could obtain Scandinavian market share because a consequence of learning from the failure of the previous Swedish entry meant that the firm's machines were faster and more versatile than the Swedish production lines (one-way arrow between opportunity search and resource reconfiguration).

4.3 Findows Oy – The Swedish market: a window to international growth

Findows Oy was established in the late 1940s. The original business idea was to manufacture windows and doors to respond to the increased demand from Finnish construction markets. Finland was at the time in a post-war era and reconstruction of the country provided good business opportunities for window producers. Currently the group has two distinct business units but this study focuses only on the window manufacturing unit. The company's other business unit sells only to the Finnish market and so falls beyond the remit of a study on international business expansion.

Findows Oy's primary markets have always been in Finland although the firm has exported its products since the 1960s. The primary reason for this is that construction markets are in general focused on domestic markets because products and customer preferences vary between cultures *(CEO A, telephone interview, 5.10.2010).*

During the early phase of Findows Oy's internationalisation, its primary export markets were in the Soviet Union and there was a time when one third of the firm's revenue came from there. Business relations with the Soviet Union relied on the personal relations of the firm's founder and his expertise on the local culture.

> *At the time, our employees were guessing who was visiting Moscow more often, my father or Urho Kekkonen (Finnish president 1956–1981).*
>
> *(CEO A, telephone interview, 5.10.2010)*

Findows Oy's growth development between the years 2002 and 2006 is illustrated in Figure 11. The figure, however, presents only concern-level figures (i.e. from both the firm's business units together) because all the key figures were not available for the window-manufacturing unit alone. By combining information gathered from several data sources it can be estimated that from 2002–2006 between 16 and 20 per cent of the window unit's revenue came from international markets and that the trend was slightly upwards. However, the pace of international growth was quite slow.

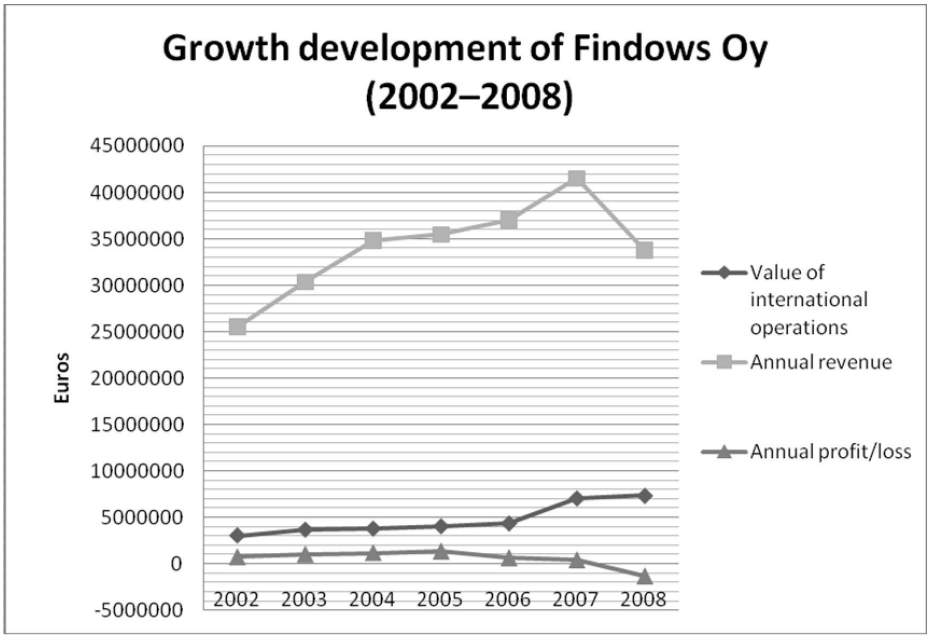

Figure 11 Findows Oy's growth development (2002–2008)[26]

The firm's number of personnel grew significantly during the first years of the 21st century. In 2002, the firm employed 223 people whereas in 2006 the figure was already 303. However, the growth was still coming mainly from Finnish markets.

26 Figure 11 shows Findows Oy's concern-level figures. However, other business units operate only in domestic markets.

4.3.1 Prologue: from Russia to Sweden

Findows Oy is a real family business where the ownership of the firm is shared between five descendents of the founder. Many of these siblings have worked for the firm but managers are also recruited from outside the family. The most important change in the firm's ownership structure took place in the late 1990s when a new generation assumed formal control. At an operational level, the generation change had taken place during the late 1980s when the founder's eldest son replaced him as CEO of the firm.

> *Operational change was done one night in 1987, but the ownership was a different matter.*
>
> *(CEO A, telephone interview, 5.10.2010)*

The ownership change was a result of a long project that the founder had already planned for over a decade before the operational change of generation was conducted. The first shares were handed over to the second generation in the middle of the 1970s and the last shares in 1998. The reason for the long time period was that the founder wanted to make sure that his children were ready to carry the responsibility of ownership, so he decided to give them enough time to grow professionally. In addition, tax issues had their own influence on the long period of generation change (Talouselämä, 2000; Chydenius, 2005; CEO A, telephone interview, 05.10.2010).

After the ownership change Findows Oy's growth rate accelerated, but it should be noted that the firm's development had been connected with economic changes. In other words, when markets have grown, Findows Oy has grown and vice versa. Although Findows Oy's main markets have been in Finland, the role of the firm's international operations was important, for example, during the Finnish recession in the 1990s when Findows Oy covered decreasing domestic sales by investing more in international business. At the time, exports to Japan and Russia in particular were clearly more essential than they are today. On the other hand, the collapse of the Russian export market was a major reason behind Findows Oy's decision to start investing more in the Swedish market.

In the 1990s Findows Oy's primary export markets were still in Russia, although the share of export operations of the firm's revenue was now clearly smaller. The local construction boom provided good growth opportunities for the Finnish construction industry, which had suffered during the Finnish recession. However, Findows Oy's growth stopped as a consequence of the political decision by the Russian government to devalue the rouble by 40 per cent (CEO A, telephone interview, 5.10.2010). During the research period, the firm's exports started to increase again although not in Russia. At the same time when the firm's sales to Russia collapsed, Findows Oy started to plan

new investments in the Swedish market and in 2005, a new sales office was established in Stockholm. This strategic investment gave a boost to the firm's Swedish sales although it had already been exporting to the country for decades. In fact, Findows Oy had established a small sales office, with only one employee, in Sweden in the late 1970s. However, the devaluation of the Swedish krona in 1982 meant that the profitability of the unit collapsed and the firm decided to shut it down.

> *The krona was devalued by 25 per cent and our competitiveness was lost overnight.*
>
> *(CEO A, telephone interview, 5.10.2010)*

Seeds for the new Swedish sales office were sown as early as 1992 when the firm's CEO A started to cooperate with a Swedish specialist on a common R&D project. The project never came to fruition but the personal relationship between the two people flourished and the specialist became Findows Oy's Swedish country manager in 2005.

> *We started to think of opportunities to cooperate in the early 1990s. Chemistry is very important in these relationships. When we noticed that the soundproofing trend started to emerge in Sweden, we understood that we had a ready-made product for this niche. In 2005 our production volume was high enough to establish a sales office in Sweden.*
>
> *(CEO A, telephone interview, 5.10.2010)*

4.3.2 Swedish sales office as a trigger to international growth (2002–2006)

Sweden has always been an important export market for Findows Oy. In the early 21st century, the firm was struggling to export to other markets, but it succeeded in increasing its market share in Sweden. In 2005, the firm established a sales office in Sweden, and as a consequence its exports started to increase rapidly. It is noteworthy that at that time, Findows Oy was already over 50 years old and this was only the second sales office in its history. However, the first sales office, established in Sweden in the late 1970s, employed only one person and was shut down after just a couple of years. In 2008, the new Swedish office employed five people. Besides a national manager there were four sales representatives focusing on selling Findows Oy's windows to the Swedish construction industry. In Sweden the firm has decided to operate only in business-to-business markets, whereas in Finland, consumer markets are important, too. As a consequence of the establishment

of an international sales office, Findows Oy was the largest Finnish window exporter in 2008.

> *From the perspective of international operations the most significant milestone has been the establishment of the Swedish sales office in Stockholm... Although we are not the largest Finnish window manufacturer, we are the largest exporter. According to statistics we were responsible for about 58 per cent of Finnish window exports last year.*
>
> *(Sales director, interview, 28.3.2008)*

While the firm's other international operations have recently mainly brought extra costs for Findows Oy, in Swedish market the firm has grown. The main factor enabling this international growth has been the excellent soundproofing of the firm's windows. After all, in windows manufacturing there are very few options for competitive differentiation; the core product has been almost the same for centuries. Totally new products do not appear, although different features, such as design, soundproofing and energy-saving, are continually upgraded. So, industrial characteristics explain the fact that Findows Oy's investment in research and development has provided only between 1% and 2% of its annual revenue (Financial Statements 2005, 2006, 2007 and 2008). However, this does not mean that the importance of research and development has not been recognised among the firm's managers.

> *In product development, there have to be such "propeller heads" that are able to see if an electric field could replace the window glass during the next ten years. People, who are able to see where our industry is going.*
>
> *(Sales director, interview, 26.3.2008)*

As a consequence of industrial characteristics, Findows Oy's opportunities for differentiation are mainly based on good soundproofing and the energy-saving qualities of the firm's windows, because it has avoided price competition.

> *There is always someone who produces cheaper. The best way to advance Finnish work is to increase our know-how.*
>
> *(CEO A, Industry Publication, 2005)*

Window producers can also try to differentiate their products by the number and design of the panes within the frame. However, differentiation through design in Sweden would be extremely challenging for Findows Oy because there are significant differences between Swedish and Finnish preferences. Finnish windows usually include two frames (the 'H-frame') whereas the Swedish market is dominated by single-frame windows that are easier to wash.

So, in practice Findows Oy's only advantage in the Swedish market is related to "technical" product features, whereas from the angle of product design, the firm is not very competitive with local rivals although it is able to make small adjustments if required by the client.

> *Our designs do not have a real demand in Sweden but thanks to our excellence in soundproofing we have gained success in the country with Finnish windows. Swedes are very advanced concerning issues related to soundproofing demands.*
>
> *(Sales director, interview, 28.3.2008)*

Despite success in the Swedish market, Findows Oy's managers are aware that competitors are constantly investing in their research and development, aiming to exceed the soundproofing qualities of Findow's products. As a consequence, the firm has to continually develop its product features further to be able to remain competitive in Sweden. If Swedish competitors achieve the advantage, Findows Oy will lose its customers to local firms because Swedish construction firms prefer buying from Swedish manufacturers. Besides better product features, other processes have to be continually developed to keep Swedish customers satisfied.

> *We have to increase our processes all the time and we have to keep all our promises. We can never be late on our deliveries. They have to be in the right place at the right time. It just is so that a Swedish construction firm will overlook small delays from Swedish manufacturers, but if we are a week late they will change supplier immediately. They will buy products from Sweden and argue that they couldn't be sure if Finns would deliver on time.*
>
> *(Sales director, interview, 28.3.2008)*

> *This is a pan-European phenomenon. Each country thinks that their own products represent the most secure and highest quality products.*
>
> *(CEO A, Industry Publication, 2005)*

> *Our product development improves our strengths all the time but so do the Swedes. There is no such thing as sustainable competitive advantage.*
>
> *(CEO A, telephone interview, 05.10.2010)*

The dominating role of the Swedish market in Findows Oy's international growth is even more apparent when the structure of the firm's export operations is studied more closely. The firm has also exported its windows to many other countries, such as Russia, the Baltic countries and Japan. As already mentioned, Russia and Japan used to play more important roles than

they do today. Russia was an important export market, especially in the mid 1990s, until its devaluation of the rouble changed local markets significantly. Exports to Japan were started during the late 1980s, and their importance was highlighted especially when the Finnish market collapsed during the local recession. However, Japanese business culture is challenging for Westerners, and Japanese exports have been decreasing for a long time, which is partly explained by Japan's unstable economy. Today exports to these countries are marginal, and the firm's sales director estimated that in 2008 about 90 per cent of the firm's international revenue was from the Swedish market.

> *We export some products to Japan but I don't know if it could even be called exporting. Amounts are so low… You understand that exporting windows from here to Japan by ship is not a very good business. We are clearly focusing on Sweden and other Nordic countries. We are opening sales channels in Norway also but Sweden is the country we love.*
>
> *(Sales director, interview, 28.3.2008)*

Despite the fact that exports to other markets are small, the firm has not given up on those markets, and the managers believe that there is still potential for sales to increase in the future. In addition, the cooperation with local agents in certain export markets has been running without problems, therefore Findows Oy has not wanted to terminate contracts, although exports to these markets cannot yet be counted as a "real" business. Good agent-relations are important because the firm's agents have to be able to take comprehensive responsibility for local projects. For example, exports to Norway have been minor so far, because Findows Oy has not been satisfied with the local agent's performance. Just selling windows to the local markets is not enough, because Findows Oy's products include guarantees.

> *We give long guarantees, just like any other window manufacturer. We can't do business just by saying 'take care', because we have a responsibility for our products years after we close the deal.*
>
> *(Sales director, interview, 28.3.2008)*

Besides, Finnish products still have a good reputation in certain markets.

> *In Russia and Sweden, Finnish products don't have to be explained. They believe in Finnish know-how. The Japanese have a fairly similar culture and they have preferred wooden constructions for centuries.... Finns are also wanted business partners because we have not lost our honesty although there have been changes in our values.*
>
> *(CEO A, Industry Publication, 2005)*

Recently the firm has clearly started to evaluate its foreign distribution channels more critically than before. An illustration of this was the management's decision to quit operations in the United Kingdom. The main reason for the decision was simple: exports to the target market were too small to provide opportunities to make real profits.

> *It demanded work, money and other endeavours… Every extra year brought more losses. For years we just waited to see if the UK market would change to being more profitable. Then last autumn [in 2007] we decided that it was over. After that you just had to have the guts to tell your clients that we did not sell anymore, and that they should go and ask from other firms. The UK was just not our territory.*
>
> *(Sales director, interview, 28.3.2008)*

Findows Oy's total revenue stopped growing then started to decrease between the years 2007 and 2008. However, the firm's international operations remained quite stable during this very challenging market situation.

4.3.3 Epilogue: end of the growth (years 2007–2009)

Because Findows Oy's business is closely intertwined with the development of the construction industry, it is not surprising that economic recession hit the firm hard and Findows Oy's revenue decreased almost 20 per cent between the years 2007 and 2008. This was the first time during the 2000s that the firm's revenue did not grow. Furthermore, the number of personnel decreased from 311 in 2007 to 237 in 2008. Reductions were justified by stating that the firm's market situation was expected to change significantly in the future, and therefore the cost structure needed to be modified (Financial Statement, 2008).

In 2008, the firm moved from profit to loss when Findows Oy made a loss of 1.3 million euros (about 4 per cent of its revenue). This was the first time in over ten years that the firm had presented negative financial results. However, in 2009 the new CEO said that he was satisfied that they had already made the most painful decisions in the previous year (CEO B, Loimaan Lehti, 2009). This made the firm's structure healthier, and prompted the planning of operations that would enable growth in the future. The first plans were realised in 2009 when the firm presented a new subsidiary which focused on selling products especially to the renovation sector.

The most significant factor in Findows Oy's negative growth development was the general economic downturn which had a direct negative impact on construction markets. When global recession hit Finland, about half of the house-building markets suddenly disappeared. Although the market downturn affected Findows Oy's business directly, it was no surprise to the firm's

management. In fact, in 2006, CEO A gave a seminar speech in which he stated that there were signs of harder times in the air. He confirmed that the building of new houses had decreased significantly during the latest decade, but that it was the large amount of renovations that made that industry successful. He was also very worried about rapid growth in the price of raw materials and wages. At the time, the price of wood had increased almost 50 per cent in the period of one and half years. Similarly, prices of other raw materials, such as glass and metal, had increased, which created challenges for windows producers, since they were not able to immediately reflect the changes in their own pricing as they had already made many contracts based on "old" prices. In addition, the CEO said that exports to Russia had dramatically decreased after the large projects of the 1990s had finished (CEO A, Oulun Eteläisen Puuviesti, 2007).

In 2008, the firm's sales director strongly believed that the market downturn would last only a couple of years. The firm had already reacted to the market change by aiming to increase cooperation with construction firms operating in the renovation sector.

> *Currently we are moving into a decreasing market and we hope that this will last only a couple of years. My opinion is that 2008 and 2009 will give us time to take a breath because the previous years have been times of rapid construction. We already decided a long time ago that the renovation sector is the one we should invest in. During the last 20 years, the building of new houses has gone up and down in certain cycles but the renovation sector has increased from 3 to 5 per cent annually.*
>
> *(Sales director, interview, 28.3.2008)*

In the future, Findows Oy's business might get some boost from new environmental policies introduced by the European Union in 2008. The EU is guiding constructors to use, for example, more energy-saving products in the future. This is good news for firms like Findows Oy who are competing with the quality features of windows. On the other hand, the recent trend in the industry has been to replace wood with plastics, and plastic windows have been successful especially in central and southern Europe. The main advantages of these windows are low cost and easy installation. Findows Oy has not produced plastic windows because they are not best suited for the challenging weather of northern Europe. However, Findows Oy has reacted to the new trend by starting to cooperate with a large German firm that specialises in the production of aluminium-based concepts (Projektiuutiset, 2010). As a result of this cooperation, Findows Oy has presented a new product family of aluminium windows. The target is to position aluminium windows higher than previous products from the perspective of price, design and appreciation.

> *We are not replacing wood with aluminium but our purpose is [to introduce a] new product family that helps us to get rid of that everlasting statement that all windows look the same and price is always decisive…*
>
> *(CEO C, e-mail, 9.9.2010)*

According to the firm's CEO C, Findows Oy still has some competitive advantage left, because although Swedes might be able to produce windows with the same soundproofing qualities, Findows Oy has capabilities to do it cheaper. However, in general it could be said that in 2010, Swedish competitors have significantly overtaken Findows Oy's lead in soundproofing quality. During the recession, Swedish competitors started to invest more in enticing clients from Findows Oy's primary segment in the country, the construction firms.

> *Partly, the situation was similar to protectionism; state-owned players reduced their [soundproofing] requirements to get more firms to make offers. Of course, I can't prove this… The challenges are the same as they were earlier. We have to have better products, better service and also better prices.*
>
> *(CEO C, e-mail, 9.9.2010)*

Findows Oy's R&D costs have remained at the same level throughout the last decade (1–2 per cent of revenue). However, the plan is to increase R&D in the near future because the firm's management believes the only way to gain profitability in saturated markets is through differentiation of products (CEO C, e-mail, 9.9.2010).

In general, the role of international operations in Findows Oy's business has recently increased, because, although the firm's total revenue has decreased dramatically, its international revenue has remained quite stable when measured in euros. Furthermore, the number of personnel in the Swedish sales office has remained the same (5 employees) over recent years. Despite the challenges caused by exchange rates between the Swedish krona and the euro, the firm achieved 40% of its unit sales of windows in international markets in 2008 (Financial Statement, 2009). However, future movements in the exchange rate between the euro and the Swedish krona will have its own influence on the future of Findows Oy's Swedish sales office.

> *In 2008 we were scared that the same thing as in 1982 [devaluation of the krona] would happen again. Then we made a conclusion that this situation cannot be permanent and we kept our sales office. Recently our competitiveness has again increased.*
>
> *(CEO A, telephone interview, 5.10.2010)*

4.3.4 Organisational processes in Findows Oy's international growth

When the case is studied from the perspective of the organisational processes underpinning dynamic capabilities, it has been stated that the firm clearly sensed an opportunity to increase its sales in the Swedish market, and this opportunity was seized through the establishment of a new sales office. In this chapter, the findings concerning the chosen organisational processes of Findows Oy are introduced in more detail.

Opportunity search

It has been stated that Findows Oy's management knows its business environment well. However, because the firm is still mainly operating in Finland they don't have to collect so much information from international markets. To gather market information, the firm utilises several data sources. Findows Oy is exceptionally active in networking, and its managers have very active roles in different associations. Besides informal knowledge, these memberships also provide regular forecasts and reports from the construction industry. In addition, the firm's management strictly follows forecasts provided by banks.

> *The reason we are following forecasts very actively is that any increase in interest rates has an instant effect on construction. Two years ago it was predicted that last year there would have been built 17000–18000 new houses. However, it decreased to be less than 15000 houses, and this year [2008] all house builders predict that it still will decrease by 10 per cent. So, if interest rates decrease this year it means that construction will increase next year and vice versa. In this business you have to study these forecasts if you want to follow your time and know what is going to happen during the next couple of years.*
>
> *(Sales director, interview, 26.3.2008)*

The firm's management has also systematically collated interesting findings. Typically this information is gathered from exhibitions, from informal discussions with personnel, clients or agents, or from official reports. When the saved data is observed from the viewpoint of international growth, it typically includes information about different business cultures and differences in consumer behaviour between different markets. Such information includes the types of windows manufactured in certain cultures, or the importance of factors like soundproofing, heat-values and price in different geographical markets. In its international operations, Findows Oy relies very much on the knowledge provided by its agents. In its agent contracts, the firm obliges the agents to provide local market information needed for such tasks as product modifications. Further to this end, the firm's Swedish subsidiary is

managed by an experienced national manager who has his own wide-reaching networks throughout the country.

The process concerning a new market entry usually starts from an initiative of the firm's sales director. The idea is then discussed in the 6-member management group which includes the CEO, Financial Controller and the directors of the business units and export sales. Decisions made by this group are based on the knowledge gathered from the target market. The firm's flexibility in decision-making is increased by the fact that several members of the management group are also board members.

Competitive positions in the industry seem to be clear to Findows Oy's management. They know how their firm is positioned in the windows market, and refer to it as a middle-sized player in the Finnish market. Recently, the firm's management has especially followed Swedish competitors' entries into Finnish markets through aggressive strategies based on acquisitions. However, according to the management of Findows Oy, such entries are good for healthy competition since the firms that the Swedes have bought had all been competing with low prices.

> *These three Finnish firms bought were all price competitors. Every time we faced them [in competition] we had to give up and tell the customers to buy from them… I believe that now it is going to change and [the entry of Swedish competitors] will have a healthy effect on the markets.*
>
> *(Sales director, interview, 26.3.2008)*

In general, there are several indications that Findows Oy's management has the capability to build a comprehensive picture of the industry's development. Experienced managers have been in the industry for decades and they clearly acknowledged signals indicating market downturn as well as market boost. An illustration of such capability is found in the firm's decision to make a strategic change towards investing more in the renovation sector. The firm's sales director said that they had been following the industry's development and found the renovation sector had been continuously growing, although the pace had not been fast. However, because market changes in the new house-building sector are much more radical, this market dimension gains much more attention. In other words, when house-building markets grow, they grow fast, but otherwise they may just stop growing at all. Therefore, Findows Oy's investments in renovation markets will probably make their business more stable in the long term.

Resource acquisition

The firm's CEOs have always had a long career in Findows Oy before being promoted. However, Findows Oy has also recruited some experienced manag-

ers from its competitors to support the firm's growth development. Many of them have gained international business experience during their earlier careers, and therefore they have already possessed existing domestic as well as international networks. For example, the firm's sales director was recruited directly from the main Finnish competitor. A good example of opportunity from the recruitment of experienced managers can be found in Norway, where the Swedish national manager's contacts were the trigger for negotiations with Norwegian firms. In addition to personal contacts, exhibitions have proved a good source of information and contacts for the firm. Besides providing useful information about current and future trends, exhibitions play a major role in Findows Oy's search for new customers. Furthermore, international agents are often solicited at these events.

> *We have found the best contacts at exhibitions. We travel to international exhibitions and meet people from the construction industry. They may sell, for example, doors or windows. Then we start to discuss if they are interested in cooperation. It is hard work and when you return home you can hardly remember your name!*
>
> *(Sales director, interview, 26.3.2008)*

From the viewpoint of financing, the establishment of the Swedish sales office was not a very significant challenge. The firm has funded its growth mainly from its own capital and has not even used any governmental support services. Besides, product modifications conducted for the Swedish market have been very minor and have not required larger investments.

> *Our finances are very healthy. Of course we have to also use bank finance because we are an industrial firm, not a banking firm.*
>
> *(Sales director, interview, 26.3.2008)*

Findows Oy's factory is located in a small town which does not have many other significant employers. Therefore there have always been enough potential employees available. The firm has recently made some new investments by arranging short training courses and by increasing cooperation with the local vocational institute.

> *The competition is getting harder the whole time. Our strength is that we are located in a small town and hence our employees are motivated. This again reflects in our productivity and keeps our employee turnover really low. On the other hand, we have to train most of our new employees ourselves.*
>
> *(CEO A, Industry Publication, 2005)*

The firm's recent R&D investments have been quite minor and they have mainly related to the development of its data administration systems. Through

such investments, Findows Oy has increased its efficiency, and currently new orders are sent directly from sales representatives to the firm's production point. As a result, the firm has been able to reduce its delivery times.

All in all, Findows Oy's international growth has not required significant investments in production, R&D or personnel. Instead, the firm relies on close relationships with international partners. Besides agents and clients, Findows Oy has also utilised partnerships such as that with the German firm specialising in aluminium concepts.

Resource reconfiguration

Findows Oy is selling quite standardised products to international markets. Although a basic product platform is utilised, small modifications can be made to meet a client's specific demands. The firm's management declares that instead of making larger modifications (which can result in large costs) it is more important to find the right arguments for selling quite standardised products. In Swedish markets this argument is soundproofing. As a consequence of long traditions in the development of soundproofing features, the firm has been able to introduce products which have better soundproofing qualities against traffic and aviation noise than Swedish competitor products have. The main reason for this competitive advantage has been the fact that Swedish factories have traditionally concentrated on manufacturing windows that are sold straight to consumers. However, Findows Oy's primary customer segment has been business-to-business where it has found a market niche. Recently, Swedish window manufacturers have invested more in the cooperation with construction firms, and therefore Findows Oy's competitive advantage has decreased. Greater competition pressures mean that Findows Oy has to continually develop its products to be able to maintain its market position. Hence, in autumn 2010, the firm's CEO declared that the firm would soon increase its investments on R&D (CEO C, e-mail, 9.9.2010).

Findows Oy's typical product development process starts from the observation of a development need concerning certain features of the product. In practice, the process may start, for example, when the firm's Swedish national manager sends an e-mail to the sales director to say that soundproofing qualities have to be further developed because competitors are reaching the current level. If this requires significant investment in new technologies or new human resources, the issue has to be first discussed in the firm's management group which again decides if operations will go further or not. However, this is the case only when investments are classified as very significant. If the required product improvements are classified as only minor, as most are, then no discussion with the management group is needed, and the

process is more straightforward. In such cases bureaucracy is avoided and decisions are made by the sales director and the firm's R&D specialist.

> *I just walk straight to our research and development person's room and say that we need to do this kind of thing. We are such a small firm that the distance between the office and the factory is 100 meters. That makes it easy for us to fix these things without making them too 'academic'. Everyone here knows everyone.*
>
> *(Sales director, interview, 26.3.2008)*

Besides product features, Findows Oy has to continually develop the efficiency of other processes. For example, efficient delivery schedules are essential for the firm's business in Sweden. Furthermore, every employee is required to know the whole manufacturing process of windows, at least in general terms. Hence, the firm has recently documented all its processes.

> *For example, our salespeople have to know this whole process starting from the wood coming to our factory to after sales… In our language this processing means that we know the whole chain; what happens and where. Everyone has the responsibility for the whole chain. Of course, sales people are focusing on selling, and production produces windows, but still everyone has to know [the process].*
>
> *(Sales director, interview, 26.3.2008)*

4.3.5 Dynamic capabilities in the international growth of Findows Oy

Enablers of dynamic capabilities

There can be identified some enablers of dynamic capabilities supporting Findows Oy's international growth. First, the firm managed to develop a product which had a clear competitive advantage over Swedish competitors. In other words, Findows Oy's know-how concerning soundproofing features of windows was a key to success in Swedish markets. This know-how had been developed together with Finnish construction firms early in the firm's history. Swedish competitors had not paid as much attention to soundproofing then.

Findows Oy's growth was also guided by very experienced managers. The firm is a family business, and its owners have followed its development through their lives. For example, the oldest son, who became the firm's CEO, had already experienced the first attempt to establish a sales office in Sweden during the early 1980s, although at the time he had not yet graduated from university. Furthermore, Findows Oy has for a long time used experienced "external" managers on the firm's board, and also hired managers from outside the family. In general, the firm's managers seem to be exceptionally

active networkers and their contacts have played a significant role in the firm's growth. For example, the Swedish subsidiary's national manager was the CEO's contact who had participated in the planning phase of the Swedish sales office.

In addition, growth was enabled by the firm's finances. Since the firm had been profitable over a ten-year period, establishing a sales office in Sweden was not a big financial risk from the perspective of its survival. Besides, the firm had not made very significant investments in production during the previous decade. For example, windows sold to Swedish markets were largely similar to the windows sold to Finnish markets. In other words, product modifications were only very minor, which enabled growth without expensive investment in technology.

Examples of dynamic capabilities

There are several examples of dynamic capabilities that can be identified in the international growth of Findows Oy.

First, the firm's managers have been able to combine knowledge gathered from formal and informal sources. In practice, these sources are banks and associations whose different forecasts are combined with knowledge gathered from the firm's own networks (clients, sales representatives, subcontractors, agents etc.). As a result, managers have been able to build successful predictions of market behaviour. For example, the firm's strategic change towards the renovation sector was mainly based on the managerial capability to interpret weak signals provided by different information sources. As a consequence of these interpretations, the firm established a new subsidiary for supporting sales in the renovation sector, and by the end of 2009 those sales had increased very promisingly thanks to the recovery policy of the Finnish government (e.g. increases in the tax reductions for households) which has increased renovation markets, although other areas of the construction industry have decreased. Therefore, it can be stated that Findows Oy had clearly modified its strategy from house-building markets towards renovation markets. Besides, the firm had already made a strategic decision to focus on selling windows in international markets solely to construction firms. In other words, Findows Oy has not even tried to sell its windows to Swedish consumers even though in Finland consumers are an important segment for the firm. The primary reason for this is that Swedish window manufacturers have been traditionally strong on consumer sales. Therefore, there are already well-known local brands in this segment. On the other hand, concentrating on business-to-business sales ensures that each deal is economically significant. This also makes the logistics from the Finnish factory to Sweden more efficient because the firm can deliver a large amount of products in the same shipment. This would not be

the case in consumer sales where amounts delivered are naturally smaller. One of the most recent illustrations of management's capability to follow its market environment was the decision to invest in aluminium windows. This investment, conducted with a German partner, provides better opportunities to change designs of windows. In other words, through this investment the firm clearly responded to the changing needs of customers.

Second, the firm's management has been able to modify its internationalisation strategies to meet the demands of different market environments. Although the firm had traditionally operated internationally only through local agents, it decided to establish its own sales office in Sweden. As previously mentioned, at the time the firm was already over 50 years old but this was only the second international sales office in its history. Besides, the first sales office was very small and it had been closed down over 20 years earlier. Investments in Sweden were influenced by the decrease in Findows Oy's Russian exports. When those exports collapsed, Findows Oy started to scan Swedish opportunities more actively. Together with the Swedish expert they realised that windows with high soundproofing qualities were attracting increasing interest in the country. Because Findows Oy already had windows with very good soundproofing features, the firm decided to invest more in Swedish markets and hired a Swedish partner to run its sales office established in Stockholm. To summarise, Swedish sales had been slightly increasing for years already, although at the same time exports to other markets had been decreasing. Managers clearly sensed the opportunity to improve the firm's Swedish sales further by increasing Findows Oy's involvement in the local markets, and the Swedish national manager, who had been familiar to the firm's CEO since 1992 and who possessed experience and contacts in local construction firms, was hired to run the subsidiary. The key factor behind the firm's success in Sweden was the capacity to produce windows with better soundproofing features than Swedish windows had. However, the management is aware that the firm has to continually develop its products and processes to be able to stay in the Swedish market. Therefore, the firm is investing further in the development of soundproofing features of its windows because Swedish competitors are achieving the competition advantage. Moreover, the firm has to continually reshape its processes, especially concerning logistics. Failures in production or logistic schedules would mean that Swedish customers would immediately change to domestic suppliers. Besides modifying the firm's international growth strategy by establishing an international sales office, Findows Oy's management has shown some dynamic capabilities by starting to assess its international sales channels more critically. For a long time the firm was quite timid about making strategic decisions to close down operations in

certain markets although they had been making losses for a while. However, now the firm has given up on the UK market.

Third, it has been stated that the firm was able to react to changing market situations by decreasing its number of personnel radically in 2008. As CEO B later stated, this made the firm's structure healthier and therefore mitigated the financial damage caused by the collapse of house-building markets. The move also allowed the firm to develop new functions to enable growth when the market situation becomes more promising. Table 16 analyses Findows Oy's case through the three essential elements of dynamic capabilities studies suggested by Zahra et al. (2006; see Chapter 3.6).

Table 16 Three essential elements of dynamic capabilities in Findows Oy's international growth

Operational Capabilities	*Environmental characteristics/ Triggers for change*	*Change of operational capabilities/ Examples of dynamic capabilities*
Managerial capabilities (Internationalisation strategy)	Increased interest in sound-proofing features of windows in Sweden & challenges faced in other export markets	Findows Oy's management changed its internationalisation strategy by establishing a Swedish sales office. Recently the firm has also started to evaluate its international distribution channels more critically than before. An illustration of this was the decision to quit operations in the United Kingdom.
Managerial capabilities (Strategic vision)	Declining house-building markets	Findows Oy's management reacted quickly to the collapse of its primary markets by decreasing its personnel. Therefore, the firm was able to minimize damages of the collapse and had resources to invest in new markets. The renovation sector was growing, although not as fast the new build sector had, and changes in the renovation sector are not usually as radical as in the new build sector.
Technological capabilities (R&D)	Competitive pressures	Findows Oy has to continuously invest in soundproofing its products because if Swedish competitors manage to reach the same value levels, the firm will soon lose its market position in local markets.
Networking capabilities (partnerships)	Changing consumer trends	Recently Findows Oy started to cooperate with a German firm that specialises in the production of aluminium-based concepts. This is an example of a capability to continuously identify new international partners to assist the development of the firm. As a consequence of the partnership, Findows Oy has presented a new product family of aluminium windows.

Finally, Findows Oy's international growth can be illustrated in the the theoretical framework of the study (Figure 12).

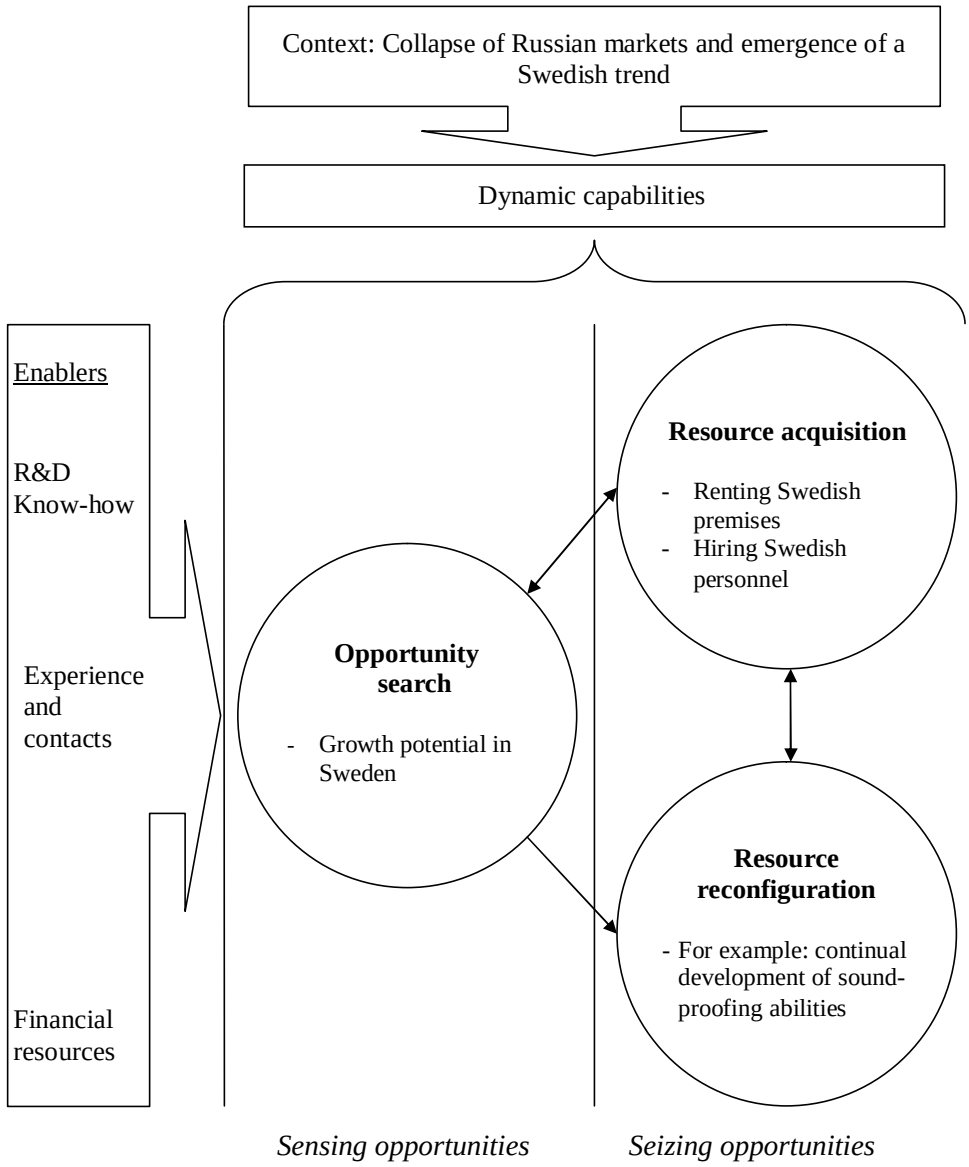

Figure 12 Findows Oy's international growth in the theoretical framework of the study

To summarise the case of Findows Oy, it has been stated that the Swedish sales office gave a real international growth boost to the firm's business. The major factor behind the decision to invest more in Swedish markets was the collapse of Russian construction markets, which meant that Findows Oy lost

its Russian clients. Therefore, international sales had to be sought from somewhere else.

Especially when Findows Oy's Swedish sales are studied, the firm's competitive advantage in the market is clearly related to its technological capabilities, supported significantly in this case by resource reconfiguration and its relationship to opportunity. Consequently, Findows Oy has been able to produce windows with better soundproofing features than those of its Swedish competitors. This achievement was also the main motivator behind the firm's decision to establish a Swedish sales office (bi-directional arrow). However, a very important information source concerning Swedish markets was the firm's current Swedish national manager who played an important role when the decision to invest in a local sales office was made. Soon, more human resources to support the local business were acquired. Therefore, again we see in this case that opportunity search and resource acquisition are closely intertwined (bi-directional arrow).

Furthermore, the Swedish national manager regularly informed Findows Oy's management of market changes emerging in Sweden. Consequently, if, for example, the firm's competitors had matched the features of Findows Oy's windows he would often make propositions related to new investments in R&D. These propositions were then evaluated and often acted on by Findows Oy's management. Therefore, we can see how, in this case, opportunity search processes can also operate as mediators between (uni-directional arrow) resource acquisition and resource reconfiguration. In other words, there is not as direct a connection between these two processes as in previous cases.

4.4 Forestry Oy: A rollercoaster of growth

Forestry Oy was established in the early 1990s, when three former employees of a bankrupt firm bought its forest machine manufacturing business from the bankrupt estate.

This chapter describes and analyses certain critical events behind the international growth of Forestry Oy during the period of study.

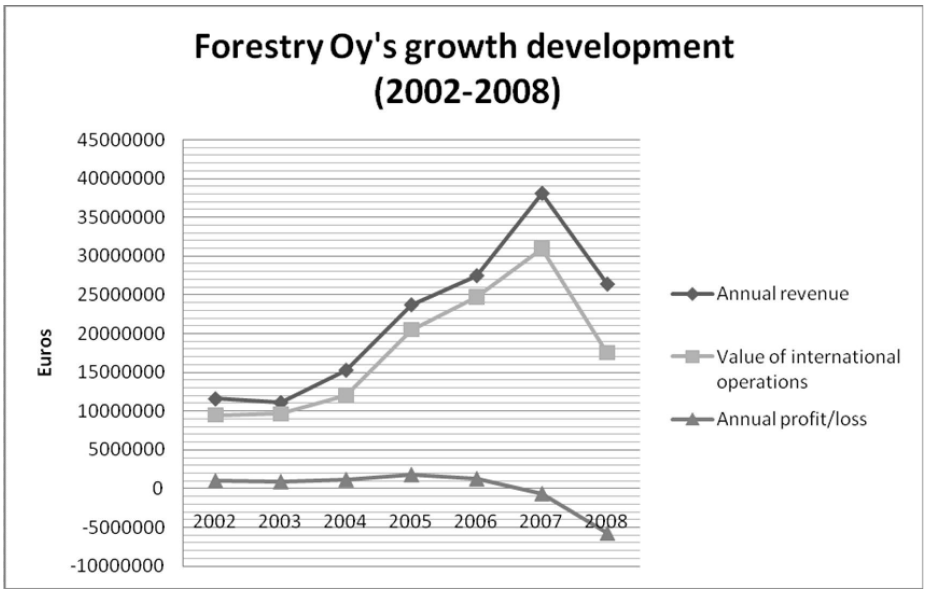

Figure 13 Forestry Oy's growth and development (2002–2008)

The firm's growth began to accelerate rapidly after the year 2004 (Figure 13). In 2008, the firm's sales director stated that the major factor behind the rapid growth was the ownership change that took place in 2005.

> *The main factor (behind the growth) was the ownership change. After the change, we began to seek out growth opportunities actively, whereas the previous owners did not take any significant risks. Perhaps I should say that under the previous owners, the firm did grow but grew quite slowly. Now we have sought out more growth and will continue to pursue it in the future.*
>
> *(Sales director, interview, 9.4.2008)*

However, this study would argue that the rapid firm growth was at least equally related to the very high market demand, which was a result of many factors; for example, there was the construction boom around the world and there were exceptional numbers of storms on several continents. Moreover, the demand for paper was also very high, and as a consequence, there was a high demand for pulp. All these events had positive impacts on the demand for forestry machines. However, Forestry Oy grew not only by responding to increased market demand but also as a result of significant investments conducted in Russia and Canada.

This interpretation is justified by a closer examination of the firm's growth and development. The firm was already growing rapidly in 2004, before the ownership change. On the other hand, the growth stopped almost completely

when the forest machine markets collapsed in 2008. The new owner's high growth orientation certainly supported the firm's growth, but it also had negative effects on the firm's finances when the market downturn started. In other words, the new owners were blinded by the fast growth, and it seems that they were so focused on searching for new growth opportunities that they did not perceive signals indicating the upcoming market change. As a consequence, in just a couple of years, the firm changed from a debt-free success story to a firm struggling to survive.

Therefore, in the case of Forestry Oy, there is no single most critical event behind the firm's international growth. Until 2005, the firm's international growth was mainly based on increasing demand in European markets where the firm already possessed a firm foothold. However, in 2005, Forestry Oy managed to increase its sales significantly abroad, particularly in the Russian and Canadian markets. The primary emphasis of this study is on these operations, but the ownership change cannot be totally ignored because it also had noticeable effects on the changes in the firm's business operations.

> *(The growth) curve started to increase when new owners took control. I don't know if the reason (for the increase) was the new owners, and whose decision it was to go to Canada and Russia, but a very large share of that growth was from Canada and Russia.*
>
> *(CEO C, interview, 21.10.2010)*

To understand how Forestry Oy was able to grow so quickly, it is necessary to examine the firm's history, and at the end of the chapter, the firm's recent development is also discussed.

4.4.1 Prologue: seeds of growth

Forestry Oy has invested in product development since its establishment, and it was able to introduce its first forestry machine in 1993. In 2002, the firm's research and development actions took a significant leap forward when Forestry Oy merged with Femic Oy. The two firms had already been cooperating for years, and as a consequence of the merger Femic Oy became Forestry Oy's R&D arm. After the merger, Forestry Oy employed about 40 people (Vasek Forum 2005, 10). The prerequisite for Forestry Oy's survival and growth is summarised in the comment made by one of the founders.

> *Large manufacturers can produce their machines at a cheaper price. Our only chance is to manufacture smarter machines.*
>
> *(Founder A, Tekniikka & Talous, 2005)*

An illustration of Forestry Oy's innovativeness is the fact that it was the first forest machine manufacturer to use industrial designers in its product development (Tekniikka & Talous, 2000). In practice, designers significantly influence the colours and shapes used in cabin production. In particular, the firm has invested in cabin ergonomics. Forestry Oy's machines also use patent protected technologies, which have provided some technical advantages to the firm, in particular in the engines, which consume less fuel than those used by its competitors (Forest Machine Journal, 2005). As a consequence, an eco-friendly "green" ideology is highlighted in Forestry Oy's brand building, and the firm is often mentioned as the most environmentally-friendly among forestry machine manufacturers.

The role of international business in Forestry Oy's history is reflected by the fact that the firm's machines are better known in international markets than in Finland (Metsätrans, 2007). According to its financial statements, Forestry Oy was already receiving about 70 per cent of its revenue from international markets in the year 1999. In 2005, the same figure was 86 per cent, but the structure of exports had changed in that target markets had expanded outside Europe (Financial Statements 1999 and 2005). The firm's internationalisation strategy has always been based on cooperation with local agents or intermediaries (i.e. dealers). The one exception to this rule has been the United Kingdom, where the firm tried to operate through its own sales office because the management was not satisfied with the market share achieved by local agents (Sales director, interview, 9.4.2008).

Although the firm's revenue had already been growing for some time, the actual growth peak started in 2004. The founders of the firm were not seeking growth very actively, but the firm grew by simply responding to the increased market demand. However, the firm's ROI (return on investment) figure (35 %) reflects the fact that the firm was very profitable at the time (Talouselämä, 2005). However, the founders' risk-averse attitude was reflected in the telephone interview conducted in 2004:

> *Growth has never been our desire. We are independent economically and administratively. We want to be profitable, but revenue growth is not our target.*
>
> *(Founder B, telephone interview, 2004)*

The same telephone interview revealed that the firm's management saw intensive competition as the most significant factor restricting the firm's growth. There are only a few firms in the industry that operate internationally and these firms mainly have different primary markets. However, compared to the major players in the industry, Forestry Oy is a small firm. For example, the market leader (about 40 per cent of global markets) employs about 50 000 people around the world. The largest Finnish competitor employs on average

about 600–800 people (depending on the year). This Finnish market leader also exports well over 60 per cent of its products and possesses a global market share of about 20 per cent.

As mentioned above, the year 2005 was very good for the forestry industry. A clear reflection of the high demand of forestry machines is the fact that Forestry Oy had already sold its entire year's production in February (Vasek Forum, 2005). The firm's main competitors also succeeded in increasing their revenue significantly at the same time. Hence, we can conclude that the forest machine markets grew rapidly between years 2004 and 2006. It is worth noting that both Forestry Oy and its main Finnish competitor announced that their growth exceeded the average growth of the industry. From Forestry Oy's perspective, a partial explanation for the firm's high growth figures was being smaller than its main competitors.

> *Thanks to good economic trends, all forest machine producers are successful. However, Forestry Oy is growing relatively faster than its larger competitors.*
>
> *(Founder A, Talouselämä, 2005)*

As is characteristic of the forestry industry, the demand is also affected by uncontrollable factors such as natural catastrophes. For example, storms have an instant effect on Forestry Oy's product demand. When a major storm occurs somewhere in the world, the region needs a large number of forest machines for the next couple of months because the wood must be collected before insects destroy it. However, the demand is only temporary and soon decreases again (Sales director, interview, 9.4.2008; CEO C, interview, 21.10.2010). The years 2004 and 2005 were exceptionally stormy around the world. For example, in 2005, the Atlantic hurricane season was the most active in recorded history, which without a doubt increased sales of forestry machines in North America.

4.4.2 New owners, new attitude (years 2005–2006)

Forestry Oy's ownership changed in 2005 when the founders sold the firm to a Finnish investor group called Investment Partners Oy. According to tax statistics, each of the three entrepreneurs made over 3 million euros (capital income) from the deal. However, founders still continued to work for the firm as managers. At the time of the ownership change, Forestry Oy's financial figures were very good. The firm was almost debt free and had a good level of profits (Financial statements, 2005 & 2006).

Investment Partners Oy's owners are very experienced Finnish investors who have diverse professional backgrounds. At the same time, the investor

group also bought other Finnish manufacturing firms. However, the owners of Investment Partners Oy continuously underlined the fact that they are not capital investors in a traditional sense. In other words, they claimed that they did not have any exit strategies, but instead, they planned to remain owners for a longer period (Investments Partners Oy's owner A, Visio, 2008). Part of the plan was that by combining the resources and capabilities of the firms bought, each firm's efficiency would be increased. The new owners also believed that their diverse experience and wide networks would help to develop and grow the acquired firms (Investment Partners Oy's CEO, Metsätrans, 2007; Investment Partners Oy's Owner A, Visio, 2008). The new owner group also declared new growth targets, according to which Forestry Oy should have increased its revenue from 23 million (in 2005) to 50–70 million euros by 2010, in a profitable manner (Primaca Partners, Owner B, Talouselämä, 2005).

> *Our (Forestry Oy's) target is to grow profitably, at a long term rate of 20–25 per cent per year. Only profitable growth makes it possible to invest in continuous development. Achieving growth goals requires tools, and we have those tools.*
>
> *(Primaca's CEO, Metsätrans, 2007)*

In 2005, Forestry Oy made significant investments in its warehouse and production capacity. The firm also invested in human resources by hiring about 20 new employees to work in production, product planning, sales and service (Tekniikka & Talous, 2005). As a consequence, Forestry Oy was employing over 70 people by the end of 2005. As mentioned above, the firm's attitude towards growth changed radically when the new owners took control. This attitudinal change is reflected by a comment of the firm's purchasing director's in 2007.

> *We want to make money. The fundamentals of the firm are good, but the size is wrong. We want to be bigger.*
>
> *(Purchasing director, telephone interview, 2007)*

Forestry Oy's new sales director also referred to the attitudinal change taking place in the firm during the in-depth interview conducted in 2008. He stated that the previous owners had been quite risk averse, but new market entries always include some uncertainty and therefore demand some risk tolerance. Besides, opening new market channels would have required investments in production volume and network development, as well as the product modifications required by different markets. However, the previous owners had considered these investments very carefully, whereas the new owners made decisions more rapidly (Sales director, interview, 9.4.2008). The sales director himself was one of the managers that the new owners brought with them to the firm. As a result of several similar recruitments, the size of

Forestry Oy's management group's increased significantly. Whereas in 2004, the firm's operative management consisted only of the three founders of the firm, in 2007 the number of key decision-makers had increased to eight (telephone interviews, 2004 and 2007). The majority of new managers had already gained experience from the fast growth of forestry machine production by working for Forestry Oy's largest domestic competitor.

At the same time, Forestry Oy started to research new geographical markets outside Europe; the Russian market was seen as particularly fascinating. In 2005, the firm announced that it had made breakthroughs in Canada and in Russia (Tekniikka & Talous, 2005). Forestry Oy had previously done some small scale business in Russia, but after the ownership change, its investments their increased significantly. The neighbouring country of Finland has enormous forest resources, and it soon became one of Forestry Oy's key markets. In Canada, Forestry Oy sealed a long-term retail contract with a large local firm. Through this contract, Forestry Oy opened new sales channels across Canada, whereas the firm had previously been operating mainly in the eastern parts of the country. The new Canadian partner had extensive experience selling forestry machines because it had previously cooperated with the industry's market leader. However, that cooperation had just ended as a consequence of changes in the supplier's ownership. Forestry Oy had already been working with the Canadian firm's subsidiary for four years, and hence, it was a natural move to expand their cooperation to cover the whole of Canada (Forest Machine Journal, 2005).

> *Canada was an excellent country for Forestry Oy between 2005 and 2007.*
>
> *(CEO C, interview, 21.10.2010)*

In Russia too, the firm sealed a similar contract with a local partner. As a result of these new operations, Forestry Oy received about one third of its annual revenue from the Russian and Canadian markets in 2005. This rapid growth meant that Forestry Oy was the fifth largest firm in the industry in 2006, controlling about 5 per cent of global markets. At the time, the firm's management stated that it was only a matter of time until the firm would be the fourth largest forestry machine producer in the world. (Primaca Partners Oy's CEO, Metsätrans, 2007)

Forestry Oy's organisational structure changed again in 2006, when Investment Partners Oy decided to merge it with PilFor Group, a new concern established by the firm. In practice, Forestry Oy became PilFor Group's business unit, but it still kept its old name. The main motives for the merge were synergy advantages found between Forestry Oy and other business units of the concern. Examples of these advantages were the units' existing Russian

networks and experience operating in that country (Primaca Partners Oy's CEO, Metsätrans, 2007).

4.4.3 Epilogue: struggling to survive (years 2007–2009)

Forestry Oy's international growth also continued in 2007, and the share of international operations in the firm's revenue was already about 90 per cent. At the time, Forestry Oy had partners (dealers) in 16 different countries and had exported its products to over 20 countries. The firm also started to seek growth opportunities in the Finnish market because the managers expected that domestic success would give more credibility to the firm's international operations (Sales director, Metsätrans, 2007). Moreover, the Finnish market was important for testing new products (CEO C, interview, 21.10.2010). There are several reasons for Forestry Oy's relatively low presence in the domestic market. The primary reason is that in the Finnish market, price competition has traditionally been high, and as a consequence, machines must be sold more cheaply than almost anywhere else in the world.

> *There (in Finland,) the competition is very tough. It has been easier to sell machines to Central-Europe.*
>
> *(CEO A, Metallitekniikka, 2007)*

Another reason for the firm's decision to focus mainly on international markets was the fact that machines are commonly traded-in against new purchases in Finland. From the perspective of Forestry Oy, these used machines are hard to get rid of, and controlling this dimension of trade is a challenge (CEO A, Metallitekniikka, 2007). The first definite actions towards the new investments in the Finnish market included the opening of a new business location in Southern Finland. The unit focuses on services, spare parts and sales. The firm hired experienced staff to kick off the business because personal relations and networks are very important in the industry.

> *Today, clients are more price-aware and machines are closer to each other than they used to be. The quality of after sales services is decisive.*
>
> *(Sales manager, Forestry Oy's new place of business, Metsätrans, 2007)*

The forestry industry faced a rapid market downturn between 2007 and 2008, and as a consequence, Forestry Oy's business also collapsed. In hindsight, it seems that the firm's founders had their exit perfectly. Selling the business made them rich men, but only a couple of years later, the firm was almost bankrupt. However, it seems that even in 2005, they already had a strong intuition that the industry's boom would be only temporary.

> *When the industry is booming, products are sold without any special innovations. Again, when we are in recession, innovations do not help us (to sell our products).*
>
> *(Founder A, Tekniikka & Talous, 2005)*

Therefore, Forestry Oy's revenue collapsed during 2007–2008, and almost 30 per cent of its annual revenue disappeared. At the same time, the firm also made heavy losses. The market downturn took Forestry Oy's new owners by surprise. In the telephone interview conducted in spring 2007, the firm's supply manager still believed that the firm's markets were growing. However, at the same time, the firm's largest competitor had already started to modify its operations to match the changing market environment better by closing down factories in North America.

> *Demand crashed in Canada in the spring of 2007, and it is still (in 2010) quiet there. Local paper mills and pulp factories are old-fashioned, and many of those have been shut down. Many saws are also closed, and construction is slow.*
>
> *(CEO C, interview, 21.10.2010)*

During the year 2008, the recession spread from North American to European and Russian markets, which had a very negative influence on the demand for Forestry Oy's products. Moreover, the price of Russian wood had increased just before the recession and this, together with uncertainty concerning local laws and policies, had already started to dampen the rapid growth of the local forestry industry. The recession also affected Forestry Oy's subcontractors, who were struggling to survive with their own financial problems. The firm had outsourced its component manufacturing to 100 specialist suppliers, many of them located near Forestry Oy's factory (Forestry Journal, 2010).

Thus, Forestry Oy's market environment changed radically in a very short time span. The firm had just recently invested in fast growth (e.g. new storage and new service centres), and this caused major financial problems. In particular, the financial year 2008 was a catastrophe, in which Forestry Oy recorded a loss of over 5.5 million euros with decreased revenue of 26 million euros. As a result, the firm almost faced bankruptcy, and its financial statement clearly addresses the fact that the firm cannot take similar losses during the following years. The firm's debts reached almost 15 million euros, whereas its equity capital was approximately 1.5 million euros (Financial Statement, 2008).

> *Sales were more or less stopped from spring 2008 to autumn 2009…Every producer crashed…Markets were temporarily lost almost everywhere in the world. In autumn of 2008, the demand for wood*

> *collapsed, and as a consequence, there was no work for contractors, the price of pulp decreased sharply, the financial crisis emerged, financing for machines was hard to get, and in many countries, interest rates for financing were crazy. All this took place at once. Contractors did not have work, and those who had work were not able to get funding. When the future is insecure, you do not buy a harvester worth 500, 000 euros…*
>
> *(CEO C, interview, 21.10.2010)*

The changed situation forced Forestry Oy to rebuild its business operations. In practice, the firm sought out significant savings; for example, it closed its subsidiary in the UK. Instead, the firm funnelled all of its UK operations through the local dealer. In addition, the firm minimised its purchases of external services and marketing and cut travelling expenditure (CEO C, interview, 21.10.2010).

Economic problems also caused the almost complete replacement of Forestry Oy's management in 2008. In practice, this meant that the product development director, purchasing director, sales director and CEO left the firm. Substitutes were found mainly from inside the firm, although the new CEO B, who had extensive experience in the industry, was recruited externally.

Forestry Oy's economic challenges also affected the financial state of its parent firm, and Investment Partners Oy was forced to sell some real estate to cover the loss made by Forestry Oy. Soon, Investment Partners Oy cancelled its investments in Forestry Oy's business.

> *Forestry Oy's forest machines are very good. However, we can't do anything about the market collapse.*
>
> *(Investment Partners Oy's owner A, Kauppalehti.fi, 2009)*

In the autumn of 2009, Forestry Oy produced only 4–5 machines per month (Kauppalehti.fi, 2010), less than half of what it had been producing during the period of rapid growth. The number of employees at the firm was about 50, whereas in 2007, the same figure was about 100 people. To ensure its survival, the firm started a five-year debt restructuring program in 2010. The program would cut off 60 per cent of the firm's debts, and because the industry had shown the first signs of recovery, the firm's new CEO believed that the firm would survive (CEO B, Kauppalehti.fi, 2010). In the spring of 2010, Forestry Oy's parent firm PilFor Group sold its other business units and became a holding company for Forestry Oy. In 2010, PilFor Group was owned by ten people. Five of them were "old" owners (e.g. founders of Forestry Oy), and the other five were those that bought the firm from its founders.

Despite its major financial problems, Forestry Oy never stopped seeking new market opportunities. For example, in 2009, the firm entered the South American market by making a new distribution contract with a Chilean firm (Kauppalehti.fi, 2010). In 2009, Forestry Oy also launched a new product innovation based on an environmentally friendly engine. In particular, savings in fuel costs and the use of bioenergy were highlighted when the new machine was introduced (Website of International Forest Industries, 2009) In 2010 Forestry Oy's CEO was replaced again. The new manager believes that the future will be brighter, and therefore, for example, he has suspended redundancies. Moreover, in the fall of 2010, the firm started to recruit new personnel.

> *The industry totally collapsed. During the next two years, there will be an upturn.*
>
> *(CEO C, Kauppalehti.fi, 2010)*

The case of Forestry Oy reveals that the founders' strategy, which was based on slow but profitable growth, was clearly more successful than the strategy of aggressive growth adopted by the new owner group. According to the firm's CEO C, the forest machine industry has characteristics that make it impossible to grow 25% annually. This growth figure was the target set by the new owner group in 2005.

> *This is an extremely conservative industry, and there are not many players. For a forest machine contractor, a forest machine is his own workplace. If you buy a car, it is your vehicle. If you buy a computer, it is your tool. They are not that critical for you, but if you buy a forest machine, your family's bread and jobs depend on it. You also often have to mortgage your house. That means that increasing market share and sales (in the industry) requires hard work, and in practice, you have to buy that market share. So, a combination where the firm grows aggressively and profitably is not feasible in this industry. It is totally impossible, and nobody has ever managed to do it. Larger firms have also tried it, but this is a special niche-business.*
>
> *(CEO C, interview, 2010)*

> *Of course, growth rates are now insane, but in this industry you cannot grow more than 10–15 per cent per year if you want to do so profitably […] These statements of Investment Partner Oy about profitable growth rates of 25 per cent are completely insane. It may work in consumer goods, but in the forestry machine business it does not work.*
>
> *(CEO C, interview, 2010)*

In the autumn of 2010, markets started to look brighter; for example, Canadian sales started again. In addition, Russian sales started to increase as a

result of the stabilisation of oil prices and the normalisation of raw material prices, among other factors. However, local customs still caused challenges for Forestry Oy's business. The firm had also changed its Russian dealer because the former dealer gave up forestry machine sales as a consequence of financial problems in 2008. In 2010 Forestry Oy announced that it had sealed a new and significant partnership with a large Russian dealer (Kauppalehti.fi, 2010; *CEO C, interview, 21.10.2010)*.

> *Our aim is to be the leading forest machine manufacturer in Russia during the next five years…We expect that Russia will already become Forestry Oy's largest single market area in the next year.*
>
> *(CEO C, Kauppalehti.fi, 2010)*

Finally, the firm has clearly returned to the ideology advocated by the firm's founders. Now, Forestry Oy aims to grow moderately but profitably. In 2010, the firm's key markets were Germany, France, UK, Russia and Canada, followed by Finland and Sweden. The share of exports in the total revenue is about 80 per cent, and the firm's target is to produce 100 machines per year. This figure is about the same as it was in 2006 and 2007. (CEO C, interview, 21.10.2010)

Forestry Oy has also reduced its management group, and in 2010, the group has six members (CEO, purchasing director, production director, R&D manager, controller and service manager). Only one of these was a member of the group in 2007. With the exception of the new CEO, everyone else has been working for the firm for a longer time.

4.4.4 Organisational processes in key events beyond Forestry Oy's international growth

When the rapid international growth of Forestry Oy is studied in terms of the processes underpinning its dynamic capabilities, it can be seen that there were several factors simultaneously influencing this development. However, in this study, the firm's entries into the Russian and Canadian markets are particularly emphasised.

Opportunity search

Examining the role of opportunity search processes in the international growth of Forestry Oy, we observe that one specific milestone clearly had an impact on the firm's operations. The firm's opportunity search process became more active after the change in the ownership of the firm.

The firm's founders had not been actively seeking new growth opportunities but rather simply responding to the increased market demand. As a

consequence of phenomena such as the mechanisation of the forestry industry, there was a clear need for new forestry machines, and therefore, the markets grew rapidly for some time. Hence, the growth was achieved without any significant investments in new markets but instead through increased sales in already existing European markets. However, the new owners started to seek out new markets on other continents to accelerate the firm's growth. Russia and Canada were natural choices for investment because they possess enormous forest resources, but thus far, their harvesting had been mainly done manually. Moreover, phenomena such as the construction boom ensured their continuously increasing need for wood products and therefore also their great need for forestry machines. Hence, it is no surprise that according to a press release of Forestry Oy's competitor in 2005, the relative consumption of twig sawn timber was increasing most rapidly in Russia and Eastern Europe, and forecasts showed that the increase would also continue in the future. For example, the Russian government had started to utilise the country's forest resources more actively, and these were seen as one alternative for decreasing the country's reliance on oil resources as its main export product. In short, Russia has enormous forest resources, the demand for wood products was increasing as a result of increased prosperity in the country, and Russia was geographically close to the large and rapidly increasing Asian markets. Therefore, the country's forestry sector had excellent prerequisites for growth and was a fascinating market for Forestry Oy as a high-tech forest technology providing firm. Russian forest technology needed to be renewed, which meant that there was high demand for modern forestry machines. Naturally other forestry machine producers were also operating in Russia, but at the time, the growth rate of the country's forestry sector was so high that there was space for several players in the market. In the Soviet Union, harvesting was mainly done manually, and therefore, the country was still lacking mechanised techniques.

Forestry Oy's management gathered their market knowledge mainly from discussions with the firm's agents, customers and their own personnel, although market research is sometimes also conducted for promising markets. The firm's machines are often customised to meet customers' requirements, and many of the options are developed as a direct consequence of customer feedback. According to the firm's CEO (C), this is an area where Forestry Oy has the advantage over most of their competitors because their customers can talk directly with the firm's R&D division if they want.

> *We like demanding customers.*
>
> *(CEO C, Forestry Journal, 2010)*

From the perspective of international business, local dealers are a primary information source. After a firm's management has identified a promising new

market, they start to search for potential local partners with whom to cooperate. Forestry Oy has often found dealers from exhibitions, but governmental support (e.g. Finpro), consultants and even the contacts of journalists have been utilised. Ideally, dealers already have experience selling forest machines or related products in the past, although new partnerships always require investments in training the dealer's staff.

> *It is always the dealer who knows these things best, and it is a strategic decision on our part to operate through dealers. On the global level, we are a pretty small firm, so it is not possible for us to know all these things.*
>
> *(Sales Director, interview, 9.4.2008)*

> *It is easier to cooperate with clients through the dealer, who certainly knows the local culture, clients and ways of doing things. Of course, in some markets it can be more cost-effective to have our own representation, but even then, we prefer to have our own men operating in the local dealers' organisation.*
>
> *(Investment Partners Oy's CEO, Metsätrans, 2007)*

Forestry Oy has developed some formal systems for scanning the business environment and for sharing information inside the organisation. For example, in 2008, the firm's management group met officially once a month, and larger strategy meetings were organised annually.

> *From the perspective of our strategy, we have this annual method where we evaluate the development of markets, our competitor's actions, new products and innovations and legal changes. We have to have a very clear picture of what will happen during the next two or three years and quite a clear picture of what will happen after five years.*
>
> *(Sales Director, interview, 9.4.2008)*

Interviews with Forestry Oy's managers show that the firm's management had a clear picture of the firm's competitive position in the industry. An illustration of this was the fact that sales director knew the market shares of the firm's competitors very accurately and had strong opinions on the industry's future. He also thought that recent acquisitions taking place in the industry were a clear sign that a couple of the industry's largest players were trying to knock out smaller firms and conquer their market shares in the near future. However, and probably as a consequence of the industry's financial problems, significant acquisitions did not take place during the next few years.

> *If we think about the whole market, the market leader has a share of roughly 40%. ...Then there are the largest Finnish manufacturer and a*

> *Swedish manufacturer, both of whom have 20%. We have 5%. Then there is one firm in Sweden that also has 5%. After that there is a huge gap until the next one …There has recently been same kind of evolution taking place that was seen in digger and earth-mover production. The market leader was purchased by a multinational corporation, and a manufacturer from Sweden has also made acquisitions. Moreover, one multinational car manufacturer announced that they are interested in forestry machines. Thus, the competition is really hard because there are these enormous global players participating.*
>
> *(Sales Director, interview, 9.4.2008)*

In addition to the competition environment, Forestry Oy has also been actively scanning other dimensions of its business environment. In the in depth interview, the sales director noted that he had recently observed changes occurring in the use of bioenergy, in the paper industry's investments and in the development of South America and Russia. In addition, the management had been closely following the challenging economic situation in North America. Changes in these factors can have a direct or indirect influence on firm's business, so it is important to acknowledge and follow them.

In the light of this information, it was not a big surprise that quite soon after the interview with the sales director conducted in 2008, Forestry Oy announced that they had invested in the use of bioenergy in their new machine model and that they had sealed a contract with a Chilean dealer. The typical decision-making process on a new market entry has roughly been as follows: after the firm's sales director finds an interesting opportunity, for example, he presents the idea to the management group. The group evaluates the idea and if it finds that it is worth of giving a shot, the idea goes to the firm's board to be accepted. Only after this acceptance are specific actions implemented.

Resource acquisition

A significant expansion of Forestry Oy's resource base took place in 2002, when the firm merged with its long-time partner Fimec Oy. The two firms had started to work together in 1996, and Fimec Oy's role in Forestry Oy's product development had increased over time. Even before the merger, the cooperation had been a real win-win situation; between 1996 and 2001, Fimec Oy's revenue increased from 400,000 to 1.1 million euros. In 1996, the firm employed only two entrepreneurs, whereas in 2001, they already had 12 personnel. As a result of the merger, Fimec Oy became Forestry Oy's R&D unit. This strengthened the firm's R&D resources significantly, which again facilitated its international growth through market-specific modifications.

From the perspective of the firm's internationalisation strategy, it seems that foreign direct investments have played only a minor role in Forestry Oy's

international growth. However, there is one exception. In the United Kingdom, the firm established a sales office because the management was not satisfied with the sales performance of local dealers. In other markets, the firm operates through local dealers. Examination of the acquisition process of Russian dealers is quite illustrative.

Forestry Oy had actively sought local dealers to sell their products in Russia but despite discussions with several candidates, a suitable firm for cooperation was not found. However, a former partner with whom the firm started its Russian operations, contacted Forestry Oy. This firm was already selling machines related to wood processing and wanted to add Forestry Oy's products to its product portfolio. Both parties were very interested in cooperation from the start, and the negotiations between the firms did not take long. As a result, the contract was signed about half a year after the first contact. After that, it took only a couple of months until Forestry Oy's first machines were sold in Russia. Naturally, Forestry Oy's management relies on that Russian dealer to know better what is going to happen in Russian markets and also to share this information with the firm. Recent and important changes occurring in Russian markets have been, for example, wood product customs tariffs, local funding and investment alternatives and Russian development of training related to forest machines.

Although the Russian operations did not require significant foreign direct investment, they did involve other costs (e.g. training of dealers and customers). The firm has invested more in Russian speaking personnel, and Forestry Oy currently employs a Russian speaking person with a technical background and another one with a commercial background. Furthermore, the firm is planning to recruit more Russian speaking people in the near future.

Forestry Oy has invested significantly in training and technical backup in Russia. Examples of these investments include training courses provided to Russian operators, Russian service personnel and Russian dealers. The courses were organised in Finland as well as in Russia. Although it brought cost, the training was required to be able to sell high-technology products in a country in which harvesting was traditionally done manually. In practice, the way this was often done was that an expert visited everyone who bought a machine and stayed with them until they got used to it.

Huge distances were also a challenge from the perspective of the Russian aftermarket, and Forestry Oy had to invest time and effort in planning how to take care of maintenance services in Russia. The rapid growth also required investments in production and storage capacities. For example, the storage capacity for spare parts was tripled in 2005 and was made more automated. EU law stipulates that manufacturers must provide aftersales support for machines for 10 years (Forestry Journal, 2010), and therefore, the availability

of spare parts must be guaranteed. However, Forestry Oy's Russian dealer faced significant financial problems in 2008, and as a consequence, it decided to remove forestry machines from its product range. Over a short time span, the number of dealer personnel decreased from 1200 to 200. After losing their Russian dealer, Forestry Oy first ensured that their clients would be able to get spare parts and services by using smaller local dealers. However, they continued to seek out potential larger Russian partners and reviewed their Russia strategy. According to the firm's CEO C, there are two alternative strategies to operate in the Russian forest machine market. Either the firm relies on smaller local dealers, or it finds one large partner (a so called "one stop shop"). Forestry Oy chose the latter strategy.

> *Both of these have pros and cons. If you look for many smaller dealers, a firm of our size has difficulties in supporting all of them because we lack resources. Thus, cooperating with one larger dealer could be quite good for our business, but on the other hand, this also requires quite a lot of resources. However, we decided to search for a one stop shop, a large distributor who covers all of Russia*
>
> *(CEO C, interview, 21.10.2010).*

Forestry Oy held negotiations with a few possible Russian partners. However, in the spring of 2010, the firm's management heard rumours that a very large Russian distributor was searching for a new forest machine producer partner to expand its product offerings. Forestry Oy contacted the distributor, who evaluated four forest machine producers before choosing their new partner. The evaluation was based on three criteria: 1) products were required to have good references and a good reputation in Russia, 2) the partner's production and organisation were required to be at a high level and 3) the products were required to be technologically advanced. Forestry Oy managed to meet the criteria and the new partnership was sealed. One of the main factors behind the decision was that Forestry Oy's machines sold to Russia before the market downturn had a good reputation in the country. The negotiation process was quite challenging, and the parties negotiated every week over a five month period.

The ownership change had also provided Forestry Oy with access to new resources and capabilities. Some of the new owners had previously worked in the forestry industry and hence had contacts and experience with the international growth of similar firms. When the firm became a business unit of PilFor Group, many routines and tools that had already been tested in the other units were also applied to Forestry Oy's business. Examples were a new human resource development program, scorecards, customer satisfaction surveys and an incentive bonus system. Other business units had already operated in Russia, so some benchmarking took place. Furthermore, the new owners

recruited new managers from one of Forestry Oy's major competitors to support the firm's growth. Therefore, Forestry Oy got new and experienced managers, new networks and new knowledge, which were believed to help it to maintain and control its growth process. In particular, PilFor Group aimed to increase the effectiveness of its business units through synergy opportunities found from the supplier networks used.

> *We soon noticed that it is much wiser to merge because there were so many factors supporting it. Synergies in management and purchasing were much larger. It was a surprise how many common subcontractors there were between forestry- and piling machines.*
>
> *(Investment Partners Oy's CEO, Metsätrans, 2007)*

However, in hindsight it can be observed that these synergy advantages were not realised.

> *The strategy didn't work. Forest and piling machines are totally different businesses. The products, clients and know-how are totally different. The strategy was completely wrong.*
>
> *(CEO C, interview, 21.10.2010)*

Furthermore, the firm acquired new resources at a time when it should have been slowing down its investments. In other words, instead of hiring new personnel and building new warehouses, Forestry Oy should have prepared for a decreasing market situation. However, the firm reacted too slowly and started laying off in October 2008.

> *Each business decision is justified when it is made. It would have required some "balls" to react (sooner). On the other hand, it is stupid not to react, if the figures indicate otherwise. We just did not believe it, but neither did our competitors. This is a crazy industry. There are only a few industries where firms can suddenly lose 50–70 per cent of their revenue just like that*
>
> *(CEO C, interview, 21.10.2010).*

When Forestry Oy was owned by its founders, its growth was financed mainly by its cash-flow. However, the new owners relied significantly more on loan money. In just three years, Forestry Oy's financial structure changed from almost debtless to very indebted, and this almost killed the business when heavy investments (for example, in 2007, the firm built a new service shed and recruited almost 20 new employees) were made at a time when the market downturn had already started. Forestry Oy has not used governmental financing. In fact, the firm's management is very sceptical, for example, towards finance provided by Finnvera plc, whose money is seen to be too expensive and as requiring too much bureaucracy.

Because forestry machines are high-tech products, the firm uses hundreds of suppliers. The firm's CEO C evaluated that there are about 50 key suppliers who produce critically important components. When Forestry Oy was growing rapidly, they lacked resources and therefore outsourced many functions. However, the firm has recently taken a step back and again increased the manufacture of its own components.

> *When you are growing fast, you outsource a lot. However, you also outsource your profits. You don't feel it when you are growing, but when the growth stops, you notice that you have outsourced your profits, and then you take the work back.*
>
> *(CEO C, interview, 21.10.2010).*

Forestry Oy seems to have quite a good reputation as an employer, and there are still employees who have worked for the firm since its establishment. The turnover of personnel has been surprisingly low although the firm's economic situation was very uncertain and a great majority of the personnel were made redundant. In fact, many of the people who left the firm during the economic downturn are now returning to Forestry Oy. According to the firm's CEO, finding good employees has been very easy.

> *Forestry Oy has a good reputation and we've had lots of applications. Recently, there has also been positive news, and people are no longer scared, although we went quite deep (into debt). This is a good firm with good products. We just had a wrong strategy and a recession.*
>
> *(CEO C, interview, 21.10.2010)*

Resource reconfiguration

Forestry Oy operates in a very competitive high-technology industry and must therefore continuously modify its machines to meet changing customer demands in order to survive. However, this only rarely requires very large investments in production technologies because the great majority of these modifications can be implemented with already existing technologies. In other words, new technological platforms are not often developed, but instead, small refinements take place continuously.

> *Our production is renewed all the time and we introduce a couple of new machine models each year. We are the forerunners especially in the development of control systems.*
>
> *(R&D Manager, Vasek Forum 2005)*

> *Small producers will not survive if products are not up-to-date and different (from those of competitors).*
>
> *(CEO C, interview, 21.10.2010)*

These continuous product improvements play an important role in the international growth of Forestry Oy because its customers operate in very different geographical areas, and therefore, each machine needs to be tailored to meet the client's individual needs. For example, there are significant differences between the harvesting of different wood species, and eucalyptus trees cannot be harvested with the same machines as conifer trees. An illustrative example of resource reconfiguration can be found from the firm's Russian market entry. In Russia, distances can be very large, and there is a clear lack of good forest roads. Hence, small machines cannot get into the forests, especially during the very wet spring time. Forestry Oy reacted to this by developing a larger machine than any other that it had launched before. This model has increased stability features and a more effective motor, which enables it to operate in very challenging environments. The same model has also become a great success in Canada. Forestry Oy has invested in particular in the development of its motors since its establishment. The firm's motors are more fuel efficient than its competitors' motors, and Forestry Oy holds several patents in motor technologies. Using patents to protect the firm's innovations is understandable because it can take many years to achieve the required quality level with new products.

> *Producing a new machine takes about 2–3 years. In general, it can take 3–4 years before things start to work in a new target country.*
>
> *(Sales Director, interview, 9.4.2008)*

There are about 100 different options from which the customer can design the machine. In practice, for example GPS systems need to be tailored for each machine because the maps used by the firm are country-specific. In addition customer needs, changes to the laws and regulations also force Forestry Oy to modify its products. For example, fire safety systems are compulsory in some countries, whereas they are voluntary in some others.

Another illustration of the firm's reconfiguration capabilities was the decision to hire an industrial designer to reformulate the appearance of Forestry Oy's forestry machines. In practice, the designer shaped the forms and colours of the cabins, giving the firm's machines a more futuristic design and improved ergonomics. This differentiated the firm from its competitors at the time.

The great majority of the significant process improvements took place after the ownership change. In particular, after Forestry Oy had become a business unit of PilFor Group, many reconfigurations were conducted. For example, supplier relationships were reorganised so that several business units used the same suppliers. This reorganisation aimed to increase the firm's effectiveness through scale advantages. Some overlapping functions between business units were also integrated. Hence, for example, the majority of administrative

services of business units were moved to a common centre. The plan was that there would be corporate-level specialists in certain technologies. In other words, same people could work for different business units and research and development could be done in common. Synergic advantages were also pursued in after sales services and quality systems of different business units. However, in hindsight, it appears that these synergic advantages did not work very well because the business units were too different.

4.4.5 Dynamic capabilities in the international growth of Forestry Oy

Enablers of dynamic capabilities

Some enablers of dynamic capabilities can be identified from the international growth of Forestry Oy.

The previous owners did not take high risks, and their investments were financed mainly by its cash-flow. This was possible because the firm's financial position was very good and because it had already been profitable for a long time. As a consequence of these investments, Forestry Oy was able to increase its international business, particularly in Europe. Furthermore, these European dealer relationships taught the firm what is required to create successful cooperation with international dealers or agents. Hence, Forestry Oy had clear criteria to guide its search for new partners in Russia and Canada.

The firm's R&D was also significantly strengthened when Forestry Oy merged with Fimec Oy. Therefore, the firm was able to modify its products to meet the changing requirements of different international customers. Innovations and development actions (e.g. fuel-sparing engines and ergonomic cabins) made in the past provided a good platform for the further development of forest machines. Forestry Oy's culture has always highlighted the importance of being different from its larger competitors. As one of firm's founders stated, Forestry Oy's products need to be smarter than the competitors' products because the firm cannot beat its larger competitors on price. Because the firm's employee turnover has been rather low and there still are employees who have been working for the firm since its founding, one can assume that a culture encouraging innovation has remained in the organisation despite the firm facing many changes.

After the ownership of the firm changed, Forestry Oy started to invest more aggressively in production, service and new markets. However, these investments were financed by debt. It can be assumed that the new owners had good relationships with financiers and thus had access to large amounts of funds. Thus, the new owner's very high growth orientation accelerated the

firm's growth, and new business opportunities were sought out more actively than before. This was supported by the wide networks and multi-industrial experience of the new owners and the managers they hired to guide the firm's growth. For example, a new CEO A was recruited from the managing group of Forestry Oy's main competitor. While the founders of the firm also continued working for Forestry Oy, the firm's resource base included much of the know-how and experience needed in international growth. After all, the new owners and managers had already seen in their previous jobs what the fast international growth of a manufacturing SME requires.

Examples of dynamic capabilities

Several examples of dynamic capabilities can be identified from the processes behind the firm's international growth. However, there are also clear signs of missing dynamic capabilities when the firm's markets changed significantly. At the end of this chapter, we also discuss this side of the dynamic capabilities.

The first example of dynamic capabilities identified from the case is the firm's ability to support international growth in new markets by recruiting new experts and by modifying its products to fit local circumstances. For example, to support growth in Russia, Forestry Oy recruited a Russian expert to train and provide backup for the Russian dealer's staff and local customers. However, to be able to provide good service in new geographical markets, Forestry Oy also had to modify its products to meet the requirements of the local environment. In Canada and Russia, forestry machines must be able to operate in challenging circumstances because distances are very long, and especially in Russia, the road infrastructure is often very poor. Forestry Oy reacted to this by introducing a new, larger model that was specifically designed for the firm's new markets. The machine had a more effective engine and better stability features than the firm's other models. This model became a great success in Russia and in Canada.

The second example of dynamic capabilities is more general and not related to specific markets. It is the firm's ability to see the increased importance of a "green" ideology. In other words, the firm's products have been more environmentally friendly than its competitors since its founding, and Forestry Oy has built its brand so that it is known as an environmentally-friendly alternative among forestry machine producers. This is an illustration of the firm's capability to understand market evolution because forestry as an industry has been closely followed by institutions such as Greenpeace for a long time now. Because firms cannot afford to risk losing their reputation because of environmental scandals, the role of environmental friendliness has clearly increased so as to become a significant factor behind purchasing decisions.

Forestry Oy applies its "green" ideology through investments in the development of more fuel-efficient engines. Actually, these fuel-saving features constitute a technological advance for the firm because fuel costs are currently very significant from the perspective of contractors. According to Forestry Oy's CEO C, the firm's machines are the most fuel efficient in the market. The firm has also participated in research projects on the possibilities of bioenergy. As a result of these research operations, Forestry Oy has recently introduced new bioenergy accessories as a part of their machines. This reflects the firm's ability to acknowledge environmental friendliness as an increasingly popular trend around the world.

Third, Forestry Oy has also modified its internationalisation strategy to match changing market environments. An illustration of this dynamic capability is found in the strategic changes taking place in the UK market. The firm started to conquer the local market by sealing partnerships with local distributors. However, Forestry Oy's management was not satisfied with the market share achieved there, and therefore, it decided to cancel one of these partnerships. Instead, the firm hired local staff and established its own sales office in southern England. The subsidiary employed an average of six people. This was the firm's first international subsidiary, and in other markets, Forestry Oy operates through dealers. In addition to the subsidiary, Forestry Oy maintained its partnership with a dealer who took care of the northern part of the UK. However, as part of its economy drive, Forestry Oy decided to shut down this international sales office in 2009, and today, its partner in northern England sells Forestry Oy's machines to the whole UK.

> *Markets decreased. The local markets matured, the price level is very challenging and the subsidiary was not profitable.*
>
> *(CEO C, interview, 21.10.2010)*

In addition to the UK, Forestry Oy has also been refining its strategy in Russia. After the firm was forced to change its local dealer as a consequence of its first partner's financial problems and rearrangements, Forestry Oy first ensured its continued existence in the country by sealing several partnerships with smaller local firms. At the same time, the firm continuously sought partnerships with larger Russian dealers, and in 2010, Forestry Oy sealed a significant new partnership with a very large Russian distributor. The firm is currently centralising all its Russian operations through this partner.

Fourth, Forestry Oy lacked dynamic capabilities when the first signals appeared of the market downturn. In hindsight, there were signals in the air indicating the start of a market downturn as early as in 2006. One example of these signals was that North American construction slowed down. Moreover, the price of wood decreased radically in 2006, which again reflected on the purchasing of new forestry machines. In the in-depth interview conducted in

the spring of 2008, Forestry Oy's sales director had already acknowledged challenges emerging in North America because the firm's Canadian trade had rapidly collapsed as a result of the US recession that started at the end of 2007.

> *Canadian sales stopped in the spring of 2007, a year before European sales stopped. Our number of orders in Canada started to decrease dramatically in April 2008.*
>
> *(CEO C, interview, 21.10.2010)*

The speed of the Canadian market downturn is also reflected in a comment of the country's Finance minister (Colin Hansen) in the autumn of 2008.

> *I think you'd never find a case where the volume has dropped off as fast as it has.*
>
> *(Finance Minister of Canada, Vancouver Sun, 2008)*

The Finance Minister was referring to the volume of timber harvested from Crown land, a key measure of economic activity in the provincially managed forests of Canada. This had a direct influence on the demand for forestry machines. One major factor behind the decrease in wood demand can be found from the crash of the US construction industry. Because Canada exports the great majority of its forest products to the US market, the downturn of the US industry hit the Canadian forestry industry very hard. At the same time, the exchange rate between the euro and the dollar changed, which also had a negative effect on Forestry Oy's exports to North America. Therefore, the Canadian market, which had been expected to be one of Forestry Oy's primary markets in the future, totally collapsed during a very short time span.

All forestry machine producers suffered from the market downturn, but when we examine Forestry Oy's larger competitors, it seems that many of them were able to adapt their operations to the changed market environment more quickly. Moreover, although the competitors' annual revenues and personnel numbers also decreased significantly, many of them were able to avoid major economic losses. One possible explanation is that some larger producers had also invested in maintenance services, which are needed even in a recession.

In summary, Forestry Oy's new owners were too growth oriented. Growth blinded them so badly that they perceived too late that the market environment was changing rapidly. Hence, their opportunity search and resource reconfiguration processes failed badly. Some of the firm's larger competitors had already started to modify their operations before the markets really crashed. Therefore, although Forestry Oy's management clearly knew their industry well, they ignored the signs of the upcoming changes in the global economy. When they finally woke up, it was almost too late. Given the management's extensive experience, it is very surprising that they missed strong signals

reflecting the start of a market downturn. In fact, it is probable that the firm's management understood that the markets were starting to decrease, but they were clearly surprised that the downturn was so fast and furious. According to CEO C, nobody in the industry could believe that the markets would significantly decrease because the forest machine markets had been growing for twenty years. Aragon-Correa and Sharma (2003, 77) have labelled this phenomenon as *"organisational effect uncertainty"* which occurs when managers have difficulty understanding or predicting the impact of changes in the general business environment on their organisations.

> *I claim that there were signs in the air. Each manufacturer's orders started to decrease during the second quarter of 2008. Of course, everyone still had orders for the summer and autumn because the order books were so long. However, in 2009, there was nothing… We reacted too slowly. Our Swedish competitor was the first one to react, and they dismissed 200 people… They reacted in time, but nobody else believed it. We spent six months thinking about what we should do. We should have slowed down immediately.*
>
> *(CEO C, interview, 21.10.2010)*

Table 17 analyses Findows Oy's case through the three essential elements of dynamic capabilities studies suggested by Zahra et al. (2006; see Chapter 3.6).

Table 17 Three essential elements of dynamic capabilities in Forestry Oy's international growth

Operational Capabilities	*Environmental characteristics/ Triggers for change*	*Change of operational capabilities/ Examples of dynamic capabilities*
Human resource capabilities (Recruiting)	Russian market entry	Forestry Oy reconfigured its human resources by recruiting Russian-speaking experts to provide backup and training for local dealers and clients.
Technological capabilities (R&D)	Challenging circumstances of new geographical markets	Forestry Oy invested on the development of motor technologies and stability features to be able to present a new machine model which was planned especially from the viewpoint of Russian and Canadian markets.
Management capabilities (Strategic vision)	Increased importance of green ideology	Forestry Oy's management reacted to the increased importance of eco-friendly products by developing for example more fuel-efficient engines and introducing new bioenergy accessories as a part of their machines
Management capabilities (Internationalisation strategy)	Challenges in the United Kingdom and Russia	Depending on markets, Forestry Oy has been able to refine its internationalisation strategies. For example in the United Kingdom, the firm used to have own sales office but currently Forestry Oy is again operating through local dealer. In addition, the firm has modified strategies used in Russia several times during the last years.

Finally, Forestry Oy's international growth can be illustrated in the theoretical framework of the study (Figure 14).

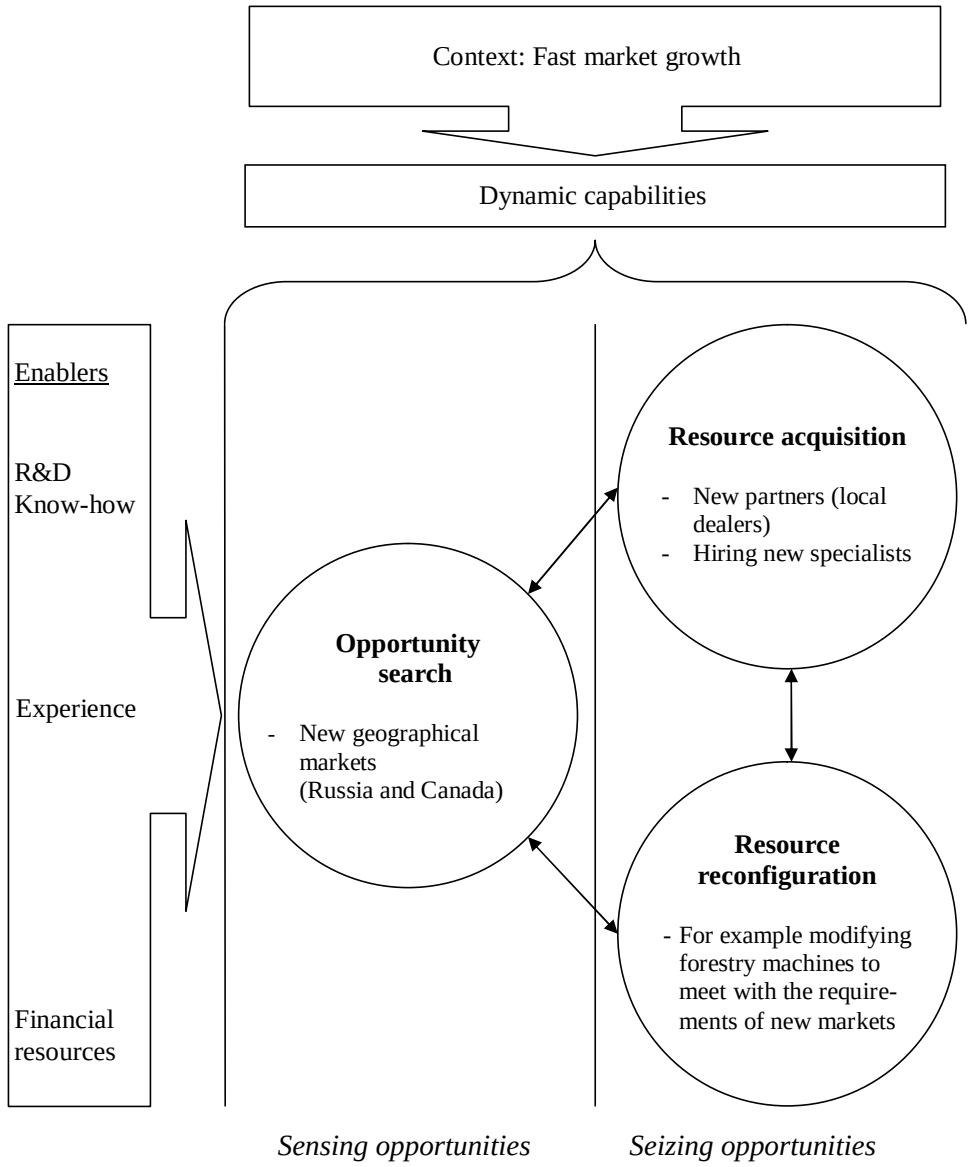

Figure 14 Forestry Oy's case in the theoretical framework of the study

To summarise the case of Forestry Oy, the firm's market entries into Russia and Canada were major factors behind its international growth. Regarding the relationships between opportunity search, resource acquisition and resource reconfiguration processes, especially on these markets, it is clear that the processes underpinning dynamic capabilities were strongly intertwined (bidirectional arrows). Therefore, in this case, it was challenging to identify

processes that clearly played the more essential roles. Instead, in this case, each process had its own role in the firm's international growth in Russia and Canada.

Examples of close relations between different processes include Forestry Oy's opportunity search processes, which were strongly influenced by the information provided by the firm's Russian and Canadian partners. The firm also acquired new human resources to support its market growth in Russia. On the other hand, the resource acquisition and resource reconfiguration processes were clearly intertwined. For example, the firm developed a new product model to serve the Russian and Canadian markets in particular because those markets required larger machines and more efficient engines. Finally, the opportunity search and resource reconfiguration were also intertwined because, for example, products developed for certain markets often also offer new opportunities in some other markets with similar circumstances. Therefore, features developed for the Russian market could be easily transferred to the Canadian market and vice versa.

4.5 Cross-case analysis of dynamic capabilities and their enablers in the international growth of studied SMEs

4.5.1 Enablers of dynamic capabilities in the international growth of SMEs

First, how experienced the senior management team is in managing a business on an international scale is important in determining the development of dynamic capabilities when it comes to international growth. Each of the firms that were studied had very experienced management teams, especially in terms of industry-specific experience. The vast majority of managers also had experience of managing business at an international level. Telephone interviews confirmed that each management group had experience of the relevant industry that totalled between 30 and 100 years. Majority of Information Technology Oy's management had earlier worked for the multinational Mobile Oyj and therefore they already knew the industry. Findows Oy's growth was also guided by very experienced managers. The firm is a family business, and its owners have followed its development throughout their lives. For example, the oldest son, who became the firm's CEO, had already experienced the first attempt to establish a sales office in Sweden during the early 1980s, although still at university. Similar examples can be found in the other two cases. Accordingly, it is argued that previous international experience and networks improve management's opportunity

search processes and provide better opportunities to identify promising international opportunities. The recession clearly accelerated the rate of labour turnover within the SMEs that were studied, for instance each manager interviewed at length in 2008 had moved to a new position by 2010. Usually these managers had left operational management voluntarily[27]. This high turnover of managers is a challenge for SMEs because it means that they lose capabilities. The key issue is how important these capabilities are to the future of the firm and how easily the management team can be replaced, either externally or internally. It is not uncommon for an SME to operate with limited staffing, but recruiting new, experienced management can be difficult.

Internationally grown SMEs seem often to recruit their experienced managers from larger competitors or partners. In this study, Information Technology Oy recruited many managers from the multinational, Mobile Oyj whereas Aluminum Oy recruited its new deputy managing director from one of its financial backers. Many of Forestry Oy's managers again had earlier worked for the firm's main competitor and also Findows Oy's sales director was hired directly from a larger competitor. As a consequence, these people already have access to industry-specific networks and they have gained the experience needed to supports the firm's international growth. This is in line with the findings of Rindova and Taylor (2002), which suggests that identifying and gaining access to "top talent" in areas important for a firm's business is an essential factor from the perspective of dynamic capabilities.

Another determining factor in the development of a firm's dynamic capabilities is its ability to learn. The *learning capabilities* of a firm are measured by its ability to utilise its previous experiences of international business. Learning capabilities are not only measured by a firm's ability to learn from mistakes, but also by how much they invest in training. Of the SMEs that were studied, those that had expanded internationally had invested in the relevant training to support international growth.

The findings of this study, and other related studies show that there does seem to be a clear correlation between a firm's investment in training and its success in international growth (e.g. Levinthal and March 1993; Hitt et al. 2001). Training employees can increase their ability to question prevailing norms and routines (e.g. Tushman and Anderson 1986) and think 'outside the box'. This can result in a "creative mind-set" (Faltin 2007), which helps employees to create new ideas and bring these to the market in a way that could be of value to the firm. This value could come in the form of new processes, product innovation, or ideas for a new target market. When the case

[27] Findows Oy's sales director retired and Information Technology Oy's director of personnel found another interesting job. Aluminum Oy's financial and administration director sold his shares and made a radical career change. Forestry Oy's sales director left the firm, while the firm's management was almost totally changed during the short period of time.

firms are reviewed from the viewpoint of training, Information Technology Oy for example can be seen to have invested significantly in training focused on the development of international sales and marketing capability, as well as in the managerial capability within the firm (e.g. encouraging MBA studies). This marketing and sales training has influenced the firm's routines and its way of searching out new business opportunities by fostering the use of tools created by strategic management researchers (e.g. VRIN, Blue Ocean). This finding is supported by the suggestion of Zucchella and Scabini (2007, 128) that management training courses are particularly important because they allow participants to expand their vision and entrepreneurial orientation, in terms of searching for and evaluating new opportunities as well as reconfiguring resources and competencies Of course, training blue-collar workers is important too. Information Technology Oy decided that every young Indian employee without prior professional experience should undertake six-months of training to ensure that new employees learnt the skills needed to produce quality products. Similar training routines, based on learning-by-doing were also identified in the other SMEs studied in this research. Aluminum Oy had recently updated its training programme to include up to 40 different phases, depending on the role. Furthermore, Findows Oy has recently invested in arranging short training courses and by increasing cooperation with the local vocational institute and also Forestry Oy has infrequently arranged short training courses for its personnel.

Some of the studied SMEs were also capable of learning from the failures and mistakes that they had made in the past in their international operations. For example, Aluminium Oy would not have been able to conquer the Swedish market without learning from the mistakes made some years earlier. Their first attempt, although unsuccessful, clarified issues on product features and technological resources that needed to be addressed before international growth could be achieved. Furthermore, it is assumed that Information Technology Oy's management was already rather prepared to face cultural differences during the acquisition of Load Measurement Ltd. because the firm had recently established international subsidiaries around the world. As a consequence, many potential culture clashes could be avoided during that acquisition.

The strength of a firm's *R&D capabilities* also seems to be crucial in developing dynamic capabilities in the context of international growth. It is obvious that being competitive in international markets requires some form of competitive advantage. It is rare for a Finnish SME to base their competitive 'edge' on low production costs, so the focus tends to be on the range, and quality of the services or products offered. Competitiveness in these areas comes from experience and knowledge, developed overtime, throughout a

firm's history. It could be suggested then, that path dependency plays a particularly significant role in terms of the value of a firm's research and development programme.

When looking at the output of each SME that was researched in this study, it was found that their product families rely on platforms[28]. These platforms enable SMEs to customise their products to meet the individual needs of their customers. Previous studies have already shown that product platforms can help firms save significant amounts of money on their production and R&D costs. For example, Volkswagen saved almost 1.5 billion euros by using the same technology platform in four different brands (Volkswagen, Seat, Audi and Skoda) and in 19 different models (Bremmer 2000). In practice, clients can often build their products from hundreds of different options and modules. Forestry Oy's clients, for instance, may live in very different climates and so their needs will differ greatly. It is important that Forestry Oy can meet their customers' needs, whatever they may be, if they wish to remain competitive on the international market. SMEs operating in more traditional industries, however (e.g. Findows Oy's window manufacturing and Aluminum Oy's package production), may use a basic product platform, which they can then modify according to the needs of their customers Information Technology Oy also developed a new multi-technology platform for its best selling product line. Its product platforms have lengthy lifecycles although the platforms will be reviewed regularly and slightly modified and improved as appropriate. The company's aim is to convince the client to buy its technology platform for new technology, so the client will use the supplier's technology across all forthcoming product upgrades. This is in line with the idea behind dynamic capabilities; that it is essential for a firm to continuously reshape its resources to meet the ever-changing needs of the market. Clearly product platforms can be utilised as a specific tool to bring dynamic capabilities into use. Product platforms are generally created in the same way. SMEs will develop a product as the result of a long-term R&D project, which will then form the basis of all of their products. The product platform can then be modified according to the needs of the customer, which may be identified through a number of avenues, such as an opportunity search process. Modifying a product platform can usually be achieved with a firm's existing resources, but the acquisition of additional resources is sometimes needed. However, it should be noted that the development of new technology or products does not in itself guarantee commercial success for firms. Instead, the technological expertise the business possesses needs to be balanced against business skills and capabilities

[28] A product platform is understood to be a common design, formula, or a versatile product, based on which a family (line) of products is built over time (see e.g. Meyer and Lehnerd.1997; McGrath 2001).

(Nummela et al. 2009). It has been suggested that technology-based firms have to go through a transformation of management philosophy. The business has to change its inward perspective that focuses on technical innovations, towards an outward perspective. This means that managers must start to devote attention to the needs of customers and the market (Berry 1996; Nummela et al. 2009). To cope with these changes, a firm must possess dynamic capabilities. To illustrate this, one should consider the example set by Information Technology Oy. In this case, the firm's product managers (who understood both the technological and commercial aspects of the business) saw that a mutual understanding between their R&D and sales department was crucial to the firm's success.

Financial resources are, of course, important if a firm is to have dynamic capabilities, and achieve international growth. This study found that financially strong SMEs were better placed to react quickly to new opportunities because they did not need to negotiate with financiers to raise the necessary funds. Previous studies have already shown that there is a strong correlation between the amount a firm invests in R&D and their potential for launching new products (see e.g. Vanderbyl and Kobelak 2007). The SMEs that were researched in this study tended to use their profits to fund smaller investments, such as setting up international sales offices, but used external financiers to fund larger investments. The MBO of Aluminium Oy, for instance, would not have been possible without sourcing finances from an external financier. If funds had not been raised in this way, the factory would have probably closed down. Also Forestry Oy's boosted international growth was mainly funded by external finance. Conversely, the acquisition made by Information Technology Oy and the establishment of Findows Oy's Swedish sales office required the firms to have strong financial resources. However, the role of the companies' own capital (i.e. that generated from their earlier profits) was more significant in these cases than in the two others investigated in the study.

It has been suggested that changing the *ownership* of a business can develop dynamic capabilities and support its international growth. Bell et al. (2001) found that a management change can help a firm internationalise rapidly after several years of domestic operations. The results of this study were somewhat similar to the findings of Bell et al., although there were some differences, for example, the SMEs that were used in this research had all begun to operate internationally long before they had changed ownership. For some of the SMEs (Aluminum Oy, Forestry Oy) that were studied, ownership change had a very influential effect. In this sense, change can be said to create change. New owners bring with them new ideas and in so doing accelerate the development of dynamic capabilities. Change often comes in the form of new management and a change in strategy. The findings of this study show that

ownership change is not uncommon amongst firms that are looking to achieve international growth. In the last decade Aluminium Oy went through an MBO, Forestry Oy was sold to a Finnish investor group, and Information Technology Oy was sold to a foreign corporation.

4.5.2 Dynamic capabilities in the international growth of SMEs

Managers of SMEs that have already achieved international growth tend to gather information from several sources; official or unofficial. Official information may come from banks, associations, or research institutes, whilst unofficial information may come from general discussions with employees, subcontractors, clients or agents. Often, it is information that comes from unofficial sources that has the biggest impact on strategic decisions made at senior management level. It could be stated therefore, that in order to build up an inclusive and extensive picture of an industry's development, the senior management team should include socially active people who are prepared to talk to people in order to gather information. Furthermore, it makes a difference who these managers are talking to. In other words, by being active members of different associations and the boards of other firms, they can access information through their contacts that it would be very difficult for their competitors to obtain. Therefore, the quality and nature of the information gathered matters too, and in this sense unofficial information is often more valuable than formal information, which is commonly available also to competitors. Each of the SMEs that were studied had managers who also possessed confidential posts in different associations and/or were members of the board in other firms. Networking in this way is particularly useful as it provides a business with other sources of information. Blyler and Coff (2003, 678) argue that *"social capital[29] is essential for a dynamic capability in terms of facilitating the acquisition, integration and release of resources"*. They go on to say that social capital provides for valuable internal and external social links that allow for information sharing, innovation and novel ways of thinking, which help managers to better understand resource acquisition, integration and release. Previous studies have also indicated that entrepreneurs with good cultural and social networks can attract higher levels of capital and are more likely to be successful than those with limited networks. In addition, competent entrepreneurs draw on personal networks to extend strategic competencies and to resolve acute operating problems by supplementing

[29] Social capital is "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or a social unit" (Nahapiet and Ghoshal 1998, 43).

internal resources (Birley et al. 1991; Shaw 1998, Macpherson et al. 2004). In the context of this study, it is arguable that for example Information Technology Oy's very close and informal relationships with the management of Mobile Oyj (the market leader in its own industry), provided essential information that helped the firm to develop technologically very advanced products at a time when the firm's markets faced a significant change in standards. In fact, when the new standard was launched, Information Technology Oy had already finalised the development of its first new products based on the standard. As a result, Information Technology Oy had a long-term technological advantage and the firm was able to make high profits. It seems evident that Information Technology Oy's management had been able to gather more detailed knowledge concerning the requirements of the new standard and characteristics valued by clients. Therefore, the firm's products were technically clearly more advanced than the products of its competitors were at the time.

Just as it is important for managers to focus on collecting information relevant to their industry, it is also important to consider higher-level changes. It may be that signals from financial markets or emerging megatrends require an SME to modify their processes. A megatrend could come in the form of an increase in ecological thinking among consumers, globalisation, or an aging population. Some of the SMEs that were looked at in this study (i.e. Forestry Oy and Aluminum Oy) have started to position their products as environmentally friendly, which may be a reaction to attitudinal change amongst Finnish consumers over the last two decades. Ecological thinking has increased substantially amongst Finnish consumers and so it follows that firms targeting this market should acknowledge the importance of producing environmentally friendly goods that are recyclable. It was also noted that SMEs have made a point of highlighting all aspects of their business that could be considered environmentally friendly, in their bid to become recognised as environmentally responsible by their consumers.

Manufacturing SMEs may also face environmental issues as a result of changes in the law or regulation, such as the EU's REACH[30]- which imposes regulations around the use of raw materials and chemicals.

Of course, it is not just collecting information that is important. Senior managers should be able to take meaning from the information they collate, and use it to aid high level decision-making.

It is important for a senior management team to have an extensive picture of their business if they are to accurately identify new business opportunities and evaluate whether they are worth seizing. The kinds of business opportunities

[30] The **R**egistration, **E**valuation, **A**uthorisation and Restriction of **Ch**emical substances. The new law entered into force on 1 June 2007.

that may present themselves are acquisitions, product innovations, or perhaps a new geographical market. To be able to realise these opportunities a business must be able to question its usual practices. For example Information Technology Oy modified its growth strategy by adding international acquisitions to the "tool box", Aluminum Oy regenerated its business strategy by switching its market focus from Eastern Europe to Scandinavia and Findows Oy started to invest in the renovation market too.

Those managers that have been able to achieve international growth for their business have been able to do so because they have been able to collect information from a variety of sources whilst building up a broad overall picture of their business environment. The managers of such firms have also been able to adjust their processes using the knowledge they have acquired so that they are better placed to take advantage of new opportunities. This particular dynamic capability has been labelled, '*knowledge absorbing* capability', for the purposes of this study. This finding comes close to that of Zahra's and George's (2002, 188), in which they term a similar dynamic capability, "absorptive capability".

'Absorptive capability' can be understood to be a dynamic capability that influences a firm's ability to create and deploy the knowledge it has gained whilst giving it the flexibility to change and compete in dynamic and changing markets. If an SME possesses this kind of dynamic capability, then its ability to respond to changing market conditions is increased, thus improving its chances of achieving international growth. However, it should be borne in mind that the effectiveness of knowledge absorbing capabilities depends on the quality of operational capabilities possessed by the firm. In other words, if for example, a firm's opportunity search processes are not efficient enough, it is unlikely that the firm's managers could create useful views to guide the strategy. In the worst case, management may totally misinterpret the future development of its own industry, to fatal effect. The results of this study show that factors such as financial resources have a major role to play in advancing an SME's international growth because financial strength enables a firm to take advantage of new opportunities as they arise. The ability of a firm to seize the right opportunity for the business however, depends on its knowledge absorbing capabilities, as it is these capabilities that guide a firm's strategic decision-making. These dynamic capabilities help a firm to identify what kinds of changes need to be made and to what extent in order for them to take advantage of the right opportunities at the right time.

For a firm to be successful in achieving change, it should be able to move away from the business practices that are not working for them, whilst maintaining those that are. Keeping processes that run smoothly can also have the added effect of making employees feel a little safer and more stable in

their jobs. A firm should be able to utilise their existing resources effectively, whilst being able to identify the processes that need changing. If a firm lacks the ability to do this then its very existence could be under threat, as seen in the case of Forestry Oy.

The ability to acquire information and use it alongside existing resources in such a way that supports the international growth of an SME can be considered to be a dynamic capability. As a consequence of these *acquisition and integration capabilities*, the firm is able to offer more versatile products and services to its customers. This is especially important for SMEs operating in manufacturing industries, since the recent trend amongst large customers has been to decrease the number of suppliers used. If manufacturing SMEs want to keep their customers, growth may be their only option. To achieve growth in any way, a firm should be able to expand and reconfigure its resource base. The SMEs that have been studied had brought in new experts and new technology to support their growth. The SMEs that were studied have also shown that they possess dynamic capabilities in their ability to modify their internationalisation strategies to match different markets. An SME may, for instance, have the internationalisation strategy of indirect exporting but because the potential for market growth in another market has been identified, has decided to set up an international sales office (as Findows Oy did in Sweden).

Sometimes it is better for a business to stop their exports to certain markets if they find that the operation costs more than it makes (as Findows Oy found in the United Kingdom). This is in line with the findings of Helfat et al. (2007, 6) who stated that dynamic capabilities can apply to the downsizing of a business, as well as its growth.

It seems clear from the findings of this study, that for an SME to achieve international growth, it must be able to evaluate how appropriate its strategies are in targeting particular markets. Not only this, but a firm should be able to change and modify their strategies to meet the changing nature of their target market. If an SME wants to optimise its potential for international growth, it must acknowledge that different market environments require a different approach. A firm may have to deal with cultural differences or an increase in competition. Kakati (2003) found that 'knowledge-intensive' firms appear to follow multiple patterns of strategic behaviour. Kakati (ibid) suggests that a firm's performance is improved when two or more strategies are used in conjunction with each other.

The ability of an internationally grown SME to evaluate and modify its own strategies evidently shows that the firm has dynamic capabilities. In this study these particular capabilities are referred to as '*dynamic internationalisation capabilities'*. Dynamic internationalisation capabilities are often closely linked to other dynamic capabilities, because how successful a firm is in changing its

internationalisation strategy will depend on how good its knowledge of the target market is. Changes in internationalisation strategy often require new resources and it is important that a firm can integrate those with its existing resource base. Establishing an international sales office, for instance, will usually require new resources in the form of employees that are local to the area. For example, Findows Oy recruited a local manager to run Swedish operations and Information Technology Oy invested in recruiting local sales people and technical experts to work at its international sites. Apart from international sales offices, other internationalisation modes also often require investment in human resources. An illustration of this is that Forestry Oy hired Russian-speaking experts to provide training and technical backup for its local dealers.

This study also supports the findings of Ambrosini and Bowman (2009), who suggest that deploying dynamic capabilities can sometimes lead to failure. This aspect of dynamic capabilities is understudied, however, as most of the research on the subject focuses only on the positive effects that dynamic capabilities can bring a business. The 'darker side' of dynamic capabilities can be seen in the case of Forestry Oy, who changed their resources too much and at the wrong time. Forestry Oy faced significant financial problems as a result of their actions.

Furthermore, when the relationship between the different processes that underpin dynamic capabilities was studied more closely, it was found that searching for new opportunities was particularly relevant to international growth. If a firm can identify and assess new business opportunities it can then make decisions about acquiring new resources and how to reconfigure the resources it already has. It could be said then that dynamic capabilities cannot exist without having an opportunity search process.

Since dynamic capabilities are context-dependent, the role of the context should not be forgotten when the role of dynamic capabilities is considered beyond its effect on international growth. This study has found that the international growth of an SME is highly dependent upon general market growth and macroeconomic changes. Dynamic capabilities can accelerate an SME's international growth if the market situation is favourable but if the market collapses it is very difficult for an SME to grow even if it retains its dynamic capabilities and is able to modify its operational capabilities. However, in this context dynamic capabilities can help SMEs to minimise their losses. A firm possessing knowledge absorbing capabilities, will be better able to react to emerging market changes. When a firm's management is able to predict market downturn or radical market change (like, for example, a devaluation of currency in certain markets or an increase in raw material prices) they will have more time to adjust their operations to deal with a

changing market environment. These adjustments could come in the form of a reduction in personnel or the postponement of an investment. Figure 15 briefly summarises the discussion above. The figure aims to cement the framework of this study by illustrating the factors that enable dynamic capabilities and the organisational processes that underpin them.

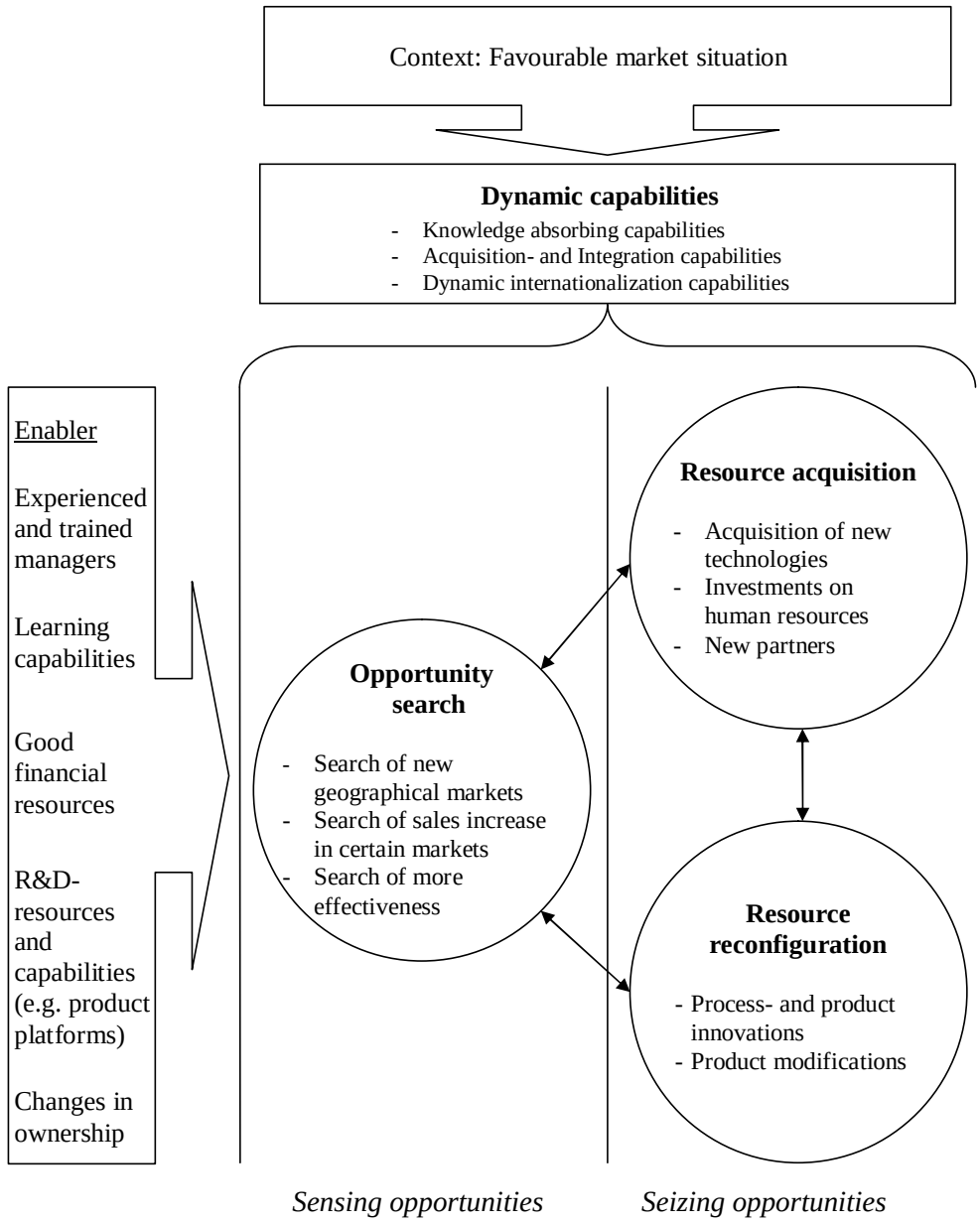

Figure 15 Dynamic capabilities, their enablers and underpinning processes in the international growth of SMEs

Summarising the study's key ideas one more time, it is argued that dynamic capabilities are born from the interplay between constructs presented in Figure 15. Opportunity search processes, resource acquisition processes and resource reconfiguration processes are composed of operational capabilities and

resources. Dynamic capabilities are a firm's ability to change these resource bases. In other words, a firm's opportunity search processes represent its operational capabilities, but its ability to change those processes demonstrates dynamic capabilities. Furthermore, it is assumed that factors like financing, managerial experience, and R&D-resources have their own influence on a firm's ability to create dynamic capabilities. For example, an SME might have operated through local dealers in Sweden for decades, when the firm's opportunity search process reveals an interesting new business opportunity in the country. However, efficient exploitation of the opportunity may require that the firm increases its presence in Sweden and therefore firm changes its internationalisation strategy and establishes its first international sales office in Stockholm. This change in internationalisation routines represents dynamic capabilities (i.e. dynamic internationalisation capabilities). However, such a significant change in internationisation policy will often require the firm to have some spare financial resources and strong know-how on certain dimensions of product development among other things. Those enablers cannot be overlooked when we search for tangible examples of dynamic capabilities in real commercial life.

Bi-directional arrows in the figure illustrate that processes are not independent. Instead they often overlap with each other. As the study is especially interested in the international growth of SMEs, it should be noted that this growth requires that a firm is operating in a favourable market situation. In other words, it is argued that if the market situation is challenging, the international growth of an SME is very difficult even though it might possess the dynamic capabilities reported in the study. Like Zahra et al. (2006, 944) suggest: *"…the realized value of dynamic capabilities depends on environmental conditions and organisational knowledge."*

5 SUMMARY AND DISCUSSION

This study aimed to illustrate the role of dynamic capabilities in the international growth of SMEs. It should be noted that previous studies on dynamic capabilities have often left the relationship between dynamic capabilities and its underlying processes unstated or implicit (Helfat et al. 2007, 30). The study also made the distinction between a firm's international and domestic growth. This is quite exceptional since international growth is only very rarely made explicit in previous internationalisation or growth studies.

This study found that SMEs could achieve the goal of dynamic capabilities through analysing how some dimensions of their chosen processes (opportunity search, resource acquisition and resource reconfiguration) took place in the events identified as critical for the international growth and development of those SMEs. In practice, the identification and description of those critical events was done through the integration of data gathered from several primary and secondary sources during the research period.

In addition, the study also paid attention to the role of people (i.e. managers) in making strategic decisions. According to Helfat et al. (2007) this dimension, which plays a significant role in the development of a firm's specific dynamic capabilities, requires further investigation. It can be seen that the people involved in a firm's strategies can either hinder or promote organisational change and so their involvement should also be considered when analysing the development of dynamic capabilities. Helfat et al. (2007) underline that the behaviour of senior executives in dynamic business environments is one factor in particular that should be looked at in more detail. This study does look at this factor to the extent that the empirical part of the study is mainly based on interviews with the senior managers of the studied SMEs. Hence, in addition to interpretations made by the researcher, the interpretations offered by senior managers have clearly affected the creation of case descriptions introduced in the empirical part of the study (Chapter 4).

This study touches on several research fields but in particular the study discusses international business, strategic management and entrepreneurship. Dynamic capabilities regarding resource-based theories have been given particular credence. To this day, the majority of reading material available on dynamic capabilities comes in the form of qualitative research and is largely discussion-based, as opposed to being drawn from an empirical study that examines the underlying processes that exist within an organisation and that

lead to dynamic capabilities (Macher and Mowery 2009) Any studies that have looked at such underlying processes in this way have concentrated on larger organisations rather than SMEs (Lydiksen 2009). Furthermore, there has been lack of studies applying a dynamic capabilities approach to studying the international growth of firms. Hence, *the purpose of the study was to describe how SMEs can achieve growth from international markets whilst exploring the role dynamic capabilities can play in an SME's international growth.* The purpose was further sub-divided to create the following sub-targets, and accordingly, the objectives of the study have also been broken down to meet the following aims:

1 To identify the events that should be considered critical and to empirically analyse their impact on the international growth of SMEs
2 To identify the factors that enable the development of dynamic capabilities in the context of the international growth of SMEs
3 To show examples of dynamic capabilities identified from critical events beyond the international growth of SMEs

In the light of the findings presented in Chapter 4, it can be stated that these aims have been achieved. First, the most critical events behind each firm's international growth were identified, described in detail and analysed through case study methods. Second, the analysis phase of the study revealed several factors that can be seen to advance the development of dynamic capabilities in the context of the international growth of SMEs. These were managerial experience, financial resources, R&D capabilities and resources, learning capabilities and ownership changes. Third, specific examples of dynamic capabilities identified from the international growth of studied SMEs were presented at the end of each case by showing how certain operational capabilities were modified to better match changing market environments. Furthermore, by comparing findings derived from the study of the firms and by increasing the abstraction level of analysis, three reflections of dynamic capabilities shared by the internationally grown SMEs studied in this research were identified. These shared dynamic capabilities are called knowledge absorbing capabilities, acquisition and integration capabilities and dynamic internationalisation capabilities. All of these reflect management's capabilities to modify a firm's operational capabilities.

First, knowledge absorbing capabilities reflect management's capability to continuously collect useful information from different sources and then combine it to build a broad overall picture of the SME's business environment. The managers of such firms have also been able to adjust their processes using the knowledge they have acquired so that they are better placed to take advantage of new opportunities.

Second, acquisition and integration capabilities reflect managerial capability of supporting a firm's international growth purposes by acquiring new resources and then reconfiguring them with pre-existing resources. However, sometimes new combinations of pre-existing resources and capabilities provide new business opportunities and, for example, new product innovations can sometimes be launched without any significant investments in new technologies or other resources. From the perspective of international growth human resources for example have to be continually modified because operating effectively in markets that differ significantly from a home-market (e.g. markets characterised by high uncertainty) often requires hiring local employees who know local business culture and already possess local networks.

Third, dynamic internationalisation capabilities address management's capabilities to change and modify a firm's internationalisation strategy. From the viewpoint of international growth, a firm might have previously relied purely on indirect exporting but then an international business opportunity requiring a more intensive presence in the target market is identified. As a consequence, the firm's management decides to establish a new international sales office. Therefore, the international growth strategy of the firm is changed to enable it to seize upon the perceived opportunity.

5.1 Theoretical contributions

This study's contribution to dynamic capabilities and international growth literature is discussed next. Furthermore, managerial implications that have emerged from the studied cases are introduced at the end of the chapter.

5.1.1 Contributions to dynamic capabilities literature

This study's first contribution to the existing research on the topic of dynamic capabilities is to provide a modified classification as a basis for studying them. This is important because process approaches often fail to operationalise dynamic capabilities properly or treat them as simple constructs (Jekel, 2009). The findings of the study suggest that dynamic capabilities can be studied qualitatively by focusing on the three essential processes (opportunity search, resource acquisition and resource reconfiguration) underpinning them. These processes are seen to consist of operational capabilities and the management's capability to modify these processes to reflect the dynamic capabilities possessed by the firm. This classification is then empirically tested in the

context of the international growth of (manufacturing) SMEs. Although this method of classification has some similarities to the classification introduced by Alsos et al. (2007), it is different in that it goes further to allow the study of dynamic capabilities to be carried out using qualitative means. Therefore, this classification is able to provide more specific examples of the role of dynamic capabilities in the international growth of SMEs than classifications used previously. The classification developed in this study could easily be adapted for use in other contexts because of the flexibility of empirical analysis it affords. The factors that either enable dynamic capabilities, or that may impact upon them are also considered using this method of research.

This study also contributes to the theoretical discussion of dynamic capabilities by providing examples of dynamic capabilities identified from SMEs that have already achieved growth in international markets. These dynamic capabilities are often specific to the type of business and the type of industry a firm operates in, but similarities can be seen amongst those of the various companies that were studied. This was not unexpected as, according to Eisenhardt and Martin (2000), dynamic capabilities exhibit commonalities across different firms. The authors explain the emergence of such commonalities by suggesting that they are a consequence of multiple, similarly effective, routes to achieving the same goal as the dynamic capability in question. According to this view, whilst the dynamic capabilities across different firms may not be exactly the same, there are multiple routes available to achieve the same result.

The findings of this study do, in part, challenge the notion that dynamic capabilities are solid and industry specific (e.g. Teece et al. 1997), and support the view that there are at least some common features amongst all dynamic capabilities across different organisations. Whilst there may be some dimensions of dynamic capabilities that are specific to a firm or an industry, it seems clear that there are also dimensions of these capabilities that are found across any firm regardless of the industry in which they operate (Barreto 2010, 273). Briefly, it is suggested that these common dynamic capabilities identified from the case firms are knowledge absorbing capabilities, acquisition and integration capabilities and dynamic internationalisation capabilities and these are discussed in detail in chapter 4.5.2.

As most studies on the topic of dynamic capabilities are largely conceptual and theoretical (Macher and Mowery 2009; Barreto 2010), this study contributes to the literature available on the subject because it offers empirical evidence about the role of dynamic capabilities beyond their effect on the international growth of a business. Furthermore, Ambrosini and Bowman (2009, 44) state that *"for dynamic capabilities to be a useful construct it must be feasible to identify discrete processes inside the firm that can be...linked to*

resource creation".The kind of discreet processes that Ambrosini and Bowman are referring to are introduced and discussed in chapter 4. In addition, Ridder et al. (forthcoming) highlight the need to unpack the micro-foundations of dynamic capabilities, but these processes still have to be conceptualised more precisely and differentiated from dynamic capabilities. The study acknowledges this dimension of the studied phenomenon too by aiming to differentiate dynamic capabilities from operational capabilities. In general, this study contributes to existing research because it develops our understanding of the processes behind dynamic capabilities and introduces a qualitative perspective based on the processes underpinning them.

Furthermore, there are few studies that examine the development of dynamic capabilities in SMEs to any great extent, this study, however, contributes to contemporary research in the area of dynamic capabilities because it goes as far as identifying several factors that could enable their development. Whilst some of the factors that this study identifies have been touched on before in previous research, there are some that have never been looked at in as much detail.

Finally, this study also offers an additional contribution in focusing on SMEs in contrast to most dynamic capabilities research that concentrates on larger firms (Lydiksen 2009).

5.1.2 Contributions to international growth literature

The study also contributes to the research conducted in the field of international growth since it can be seen to represent resource-based internationalisation studies a group generally lacking research conducted in SMEs (Ruzzier et al. 2006). This study's findings confirm the findings of Peng (2001) suggesting that international knowledge and experience are VRIN-resources that differentiate firms in a global competition. Indeed, these resources are essential when observed from the viewpoint of developing dynamic capabilities and the processes underpinning them. To date research settings integrating dynamic capabilities and the international expansion of SMEs are rare. Consequently, the study starts out with a certain novelty in its setting and reinforces it by testing its theoretical framework empirically. This chapter reviews the contributions the study makes to the literature on international growth.

First, the study draws a distinction between firm's domestic and international expansion or growth. Usually international growth is researched implicitly as a part of growth or internationalisation studies (see e.g. Jones 1999; Nummela et al. 2009) but in this study the international dimension of

firm growth is separated from the domestic one. In other words, the study takes the rare step of making international growth explicit. The study also provides a useful definition for the international growth of SMEs by defining it to be a positive change in the share of international operations of the firm when compared to its total annual revenue. The definition is also operationalised in this study (see Chapter 3.4) and therefore it was able to guide the search for suitable firms for case studies.

The second finding specifically concerning the international growth of Finnish SMEs is not very surprising: SMEs that have expanded internationally prefer competing on quality than on price. The Finnish business environment rarely permits companies to compete on price with foreign counterparts since production costs (i.e. wages, raw materials etc.) are high. On the other hand, in many industries Finland can provide skilled staff and, together with the country's highly developed infrastructure, there are good opportunities to produce modern high-quality products. However, to maintain competitive advantages in rapidly changing markets, it is a necessity that firms possess dynamic capabilities and continuously improve their product development and process efficiency. In other words, although firms may produce products, they still have to fight against price pressure applied by competitors. As a result, Finnish manufacturing industry has increasingly transferred production to cheaper countries either by using foreign direct investments or by increasing the share produced by foreign suppliers. However, the SMEs studied in this research were still relying mainly on domestic manufacturing and only Information Technology Oy had established manufacturing units in cheaper countries. In addition, Aluminum Oy had made some plans concerning establishment of a factory in Eastern Europe but this had been postponed owing to the recession.

Third, many internationalisation studies have focused on orientations and attitudes towards international growth (e.g. Dichtl et al. 1984; Nummela et al. 2004). However, this study focuses on SMEs that have already achieved growth in international markets. Therefore, this study is considered to provide more robust knowledge concerning SMEs international growth and the factors affecting the process than studies concentrating solely on attitudes, or beliefs. On the other hand, recently there have been numerous studies concentrating on firms that start to internationalise from inception, known as. born globals or international new ventures (e.g. Knight and Cavusgil 1996; Madsen and Servais 1997; Weerawardena et al. 2007; Jantunen et al. 2008; Lydiksen 2009; see chapter 2.1.2). This study again is more interested in the international growth taking place in the latter phases of SME development. As Nummela et al. (2009) suggest, further profitable growth in international markets necessitates different types of managerial capabilities and skills than does

early phase growth. These are reflected in timely and appropriate decisions as well as in the ability to act proactively and to change the organisation accordingly. In other words, it is suggested that the latter phase of international growth requires different dynamic capabilities than the early phase. Each SME expanding in international markets at some point faces trajectories that it cannot overcome without the capability to change its processes. The idea is not new; decades ago Edith Penrose (1959) suggested that entrepreneurial growth firms lack the capability to capitalise on the entire growth potential of the firm. Penrose considered the primary reason for the failure to be the restricted managerial capabilities of entrepreneurs, and proposed the recruitment of new managers and the establishment of a management group as a solution. The new management group would then lend its experience of areas like marketing and technology to the firm so the firm becomes capable of realising its growth potential.

Fourth, previous studies have revealed that rapidly growing firms often choose to use low-commitment entry modes in their internationalisation and that successful high-growth firms are very risk-averse, especially when investing their own money (Mullins and Forlani 2005; Aspelund et al. 2007). Although this study was especially interested in international growth, rather than growth in general, the comparison between results of this study and earlier findings of the growth literature are justified since international growth is often an essential dimension of firm growth. The comparison shows that this study only partially supports the finding presented above. The SMEs studied were growing rapidly, but instead of operating just through exports (a low-commitment entry mode) they also committed higher levels of investment to operation modes, such as international sales offices and even foreign manufacturing units. These investments were often financed mainly with the firm's own money and they also required that managers were able to tolerate the uncertainty concerning outcomes of their investments. On the other hand, the previous findings were supported in the case of Forestry Oy's international expansion where the firm's founding fathers were risk-averse and able to make good profits with quite moderate investments. However, their successors again took high risks which brought failure when markets started to decline. These partially contradictory results indicate that differences in contexts should be noted before comparing results of growth studies. Although the four SMEs featured in this study represent Finnish manufacturing SMEs, there were clear differences between their business environments. There were also differences between the development phases the firms were in when researched. Therefore, this study does not aim to make direct comparisons between four cases but instead provides examples from typical international growth paths among manufacturing SMEs. However, as Madhoc and

Osegowitsch (2000) have stated, the country of origin shapes firms' experiences and as a consequence the knowledge and capabilities they acquire (see chapter 2.2).Therefore, since all studied firms were Finnish SMEs, it can be assumed that, although there were differences, there were also some characteristics common to their business environments (e.g. infrastructure, currency, governmental support etc.)

Fifth, this study's findings also support many findings presented in the field of international entrepreneurship studies. An example of this is a notion put forward by Zucchella and Scabini (2007, 173) who suggested that the dynamic capabilities approach (when integrated with international entrepreneurship studies) seems to best explain international firms' entrepreneurial behaviour. Authors state that capabilities to coordinate and integrate internal and external resources, to reconfigure the firm's asset structure in terms of product portfolio and/or internal processes and personal or organisational experience, coupled with a personal or organisational network, seem to be the most important resources and capabilities able to explain and to identify international entrepreneurial firms. Indeed, the findings of this study too highlighted roles of for example organisational learning, social capital and resource reconfiguration processes behind the international growth of SMEs. In addition, for instance Keupp and Gassmann (2009, 614) suggested that international entrepreneurship research would benefit from more longitudinal research designs. The same authors (2009, 615) also stated that international entrepreneurship research could employ more qualitative studies of the international entrepreneurship process. Such studies could model the entrepreneurship-driven internationalisation process as a sequence of stages that begins with the firm identifying opportunities and wealth creation potential from possible internationalisation moves and continues with the seizing of these opportunities. Keupp and Gassmann (2009, 618) also underline that future research should emphasise studies of capabilities and resource configurations of entrepreneurial and internationalising firms, irrespective of firm size. Hence, this study can be seen to contribute to international entrepreneurship research by studying issues that according to researchers in the field (e.g. Keupp and Gassman 2009) are still lacking research.

5.2 Managerial implications

It is seen as crucially important that the study also provides useful practical implications for managers of Finnish SMEs who are currently seeking growth opportunities from international markets. It is expected that the study will assist those SMEs consider which processes they should particularly pay

attention to while aiming to grow in international market environments. Besides, the empirical part of the study refers to good practices which can easily be adopted by other firms too.

In general, international business environments are more turbulent than the domestic markets of SMEs. Factors that increase the turbulence can be for example changes in policy in the target market (e.g. a devaluation of the local currency or new customs tariffs), more competitors, differences in consumer behaviour and so on. This again means that international growth requires SMEs to possess more capabilities to conduct changes in their processes successfully than growth in home markets. In fact, these changes can be seen as a necessity for surviving in the international market environment since the inability to change will mean that SME soon looses the battle of customers "souls" to the competitors who are more capable of sensing changes emerging in customer's hopes and expectations.

So, maintaining and achieving competitiveness requires that the firm is able to continuously modify its products and services to meet the changing needs of the market. In support of the findings presented in this study, the phenomenon can be also illustrated through an example provided by Motorola. The mobile phone manufacturer was able to develop its massively successful Razr-mobile phone family, first introduced in 2004. As a result of the booming sales of these phones, the firm became world's second largest mobile phone producer. However, Motorola was too satisfied with this product and neglected to invest enough in new product development. As a result, it was not able to respond to the new feature-rich touch screen and 3G phones released by its competitors (e.g. Apple's iPhone) and Motorola's market share started to decline rapidly. As a consequence of lacking capabilities to renew (i.e. dynamic capabilities), the firm was forced to lay off 7500 people during the spring of 2007.

Possessing dynamic capabilities as presented in chapter 4.5 does not necessarily guarantee SMEs international success, but it certainly increases a firm's potential to derive profits from international markets. The results of this study suggest that there are some factors which help the firm to build dynamic capabilities and these should be paid attention before making significant investments or commitments to international markets. These factors are introduced below.

First, an SME should have sufficient experience in its management group because experienced managers already know what international growth requires. They have made their own mistakes in the past and therefore have probably already learnt their lessons. Of course, finding these people can be very challenging but often SMEs that have expanded internationally have recruited managers directly from their competitors or customers. This has guaranteed that they are already familiar with the characteristics of their

chosen industry and therefore do not need as much time before they are ready to start working efficiently for the new employer. Recruiting experienced managers gives the firm access to their personal networks and therefore also new business opportunities may arise. In terms of international sales offices, SMEs have often relied on local managers who know local business culture, local languages and usually have existing networks in the country.

However, the results of this study indicate that SMEs who have grown internationally could still invest more in knowledge sharing inside their organisations. After all, a firm's knowledge resources play a major role beyond the development of dynamic capabilities. Best practices for sharing knowledge (and tacit knowledge) inside the organisation include various programs where experienced managers mentor young prospects. In addition, young managers would perhaps benefit from spending time working abroad, since such placements increase skills and the know-how needed for the successful management of SMEs in their international operations. Many firms deliberately transfer expatriates between subsidiaries and national boundaries in order to create and disseminate capabilities (Chung et al. 2006). Besides, the importance of a manager's social skills should never be underestimated when SMEs are seeking growth. In addition, this study's results show that managers of the studied SMEs are very often members of different associations which are again seen to be a good source of useful information and new business opportunities. It is good to keep in mind that many business opportunities still emerge from informal discussions with people who are familiar from the past.

Sparrow et al. (2004) noted that a strong emphasis on training and development creates the flexibility and dynamism that enables firms to compete successfully in global markets. Although international business seems to include some intangible factors which are usually learnt only through learning-by-doing, there are also some factors which can be learnt through training courses. SMEs that have grown internationally have often invested for example in language, negotiation, presentation and marketing skills. A comment by Forestry Oy's sales director illustrates that language skills are essential from the perspective of international sales.

> *Someone has said that when you are buying stuff you can do it in English. However, when you are selling it you have to use the local language. Therefore, our sales and marketing group speaks eight different languages.*
>
> *(Sales director, interview, 9.4.2008)*

Before an SME invests significantly in international growth, the firm's managers should be sure that the firm really possesses a competitive advantage compared to its main competitors. The results of this study confirm

that in Finnish SMEs that competitive advantage is often related to the high quality of products. The natural explanation for this is that Finnish labour and raw material costs are so high that local firms simply cannot build their strategies upon selling at the industry's cheapest prices. Because international competition requires that the firm is able to react rapidly to the changing needs of customers, SMEs that have grown internationally have usually invested in product platforms in particular because they guarantee that each new product does not need to be built from scratch but can still meet the client's individual needs through mass-customisation. Although development of a new product platform can take time and it always costs more than development of a single new product, it can also be used for a long time. This study shows that SMEs can rely on the same platforms for over a decade, if they just have the capability to continuously develop new modules to complement basic technologies. Recently software firms, amongst others, have started to release open source-platforms which are then further developed by people interested in the topic. The volunteer programmers build their own applications upon the platform, making the basic platform more popular, and preserving the company's R&D budget.

After management has ensured that the firm possesses sufficient know-how to enable the development of dynamic capabilities, it must think how resources and capabilities could be combined to support the firm's international growth. Results of the study suggest that there are at least three dynamic capabilities supporting an SME's international growth. First, the SME must gather and collate many kinds of information. Sources for that information can be formal (e.g. research reports) but informal information sources (discussions with agents, dealers, clients etc.) are at least equally as important. As mentioned above, it is important that managers in the firm are socially active networkers. For example, participation in exhibitions is important because information gathered from these events helps managers to identify changes taking place in the market environment. Good sources for this market-specific information could also be discussions with the management of non-competitors who have already operated in markets to which the firm is planning to enter. These discussions might reveal cultural differences that could be very surprising from the perspective of a Finnish SME. For example, Indian employees seem to be motivated only by the salary on offer and they are used to work in very hierarchical organisations. Therefore, investing significantly in the training of local employees can be a waste of money, since Indian employees will change employer as soon as they get a better salary offer from a competitor. Indian employees also seem to need to be given clear instructions concerning what they are expected to do because the local culture does not encourage them to make independent decisions.

In addition to gathering diverse information and combining it to create useful knowledge, the SME also needs to take care that it is able to spread this knowledge through its organisation. A rapid international expansion can put a particular strain on internal communications as the firm establishes new sales offices abroad. However, it is important to invest in vertical as well as hierarchical flows of information between different units. Currently there is more information available than ever before, but it is important that managers pick the most essential pieces of information from the huge mass because this gives them more time to understand what emerging changes can mean to their business. In other words, it is important to realise that understanding how significant emerging changes are to the firm's business, requires having time to process the information coming from different sources. During a growth period, a firm is well advised to build more formalised information sharing routes (e.g. an intranet). In future Finnish SMEs are likely to face such challenges more often because it seems obvious that many will have to move part of their production offshore to cheaper countries. Finnish software firms have already started this by transferring routine-level programming to countries like India, the Baltic countries and Russia. Development of communication technology has made it possible to utilise off-shoring also in quite surprising industries. For example, US private health services have started to send X-rays to be analysed in Asia because health service costs have increased significantly in the United States. Therefore, entrepreneurs have started to seek cost-effectiveness by transferring some of their processes to Asian subcontractors. In short, the future of SMEs will be multicultural and that may present communication challenges.

One solution to the constraints of international growth faced by SMEs may be found in changes of ownership. In fact, some form of ownership change had occurred quite recently in each of the SMEs studied in this research. New owners often provide new capital, new networks, new growth-orientation and more business experience (i.e. "smart money") to the firm. As a result of the change, SMEs often start to question their old routines and to search more actively for new business opportunities. However, in the Finnish context, the challenge seems to be entrepreneurs' unwillingness to give up any share of their ownership. There is a clear difference between for example Finland and the United States where firms are established for money making and entrepreneurs are prepared to sell their firms at some point of its development. The contrasting Finnish unwillingness to share the control of the firm makes finding international financiers very challenging. For example American financiers will seldom be interested in a Finnish SME, headed by an entrepreneur unwilling to permit the financiers to really influence the firm's development. On the other hand, Finland is a small country and has a very

limited number of Finnish venture capital investors. International growth requires time and money and if Finnish firms were more willing to share the ownership, this might accelerate the international growth of Finnish SMEs significantly. However, this does not have to mean that Finnish SMEs would need to sell their entire ownership to international investors. In fact, it might be wiser for the founding entrepreneurs to continue working for the firm, because they know their own business better than anyone and their abilities should not be wasted. Another potential solution to financing challenges is to try to gather investment funding directly from large clients. In addition to increasing the commitment to the business relationship, such funding has the added advantage of being more flexible than the financing offered by banks.

Finally, the results of the study also suggested that SME managers should evaluate their international growth strategies more critically. It is not uncommon for firms to continue exporting to countries where there is no realistic opportunity for significant growth in sales. There can be many reasons for this. Local markets can be for example already be shared between reputable local firms, leaving a Finnish SME with no real competitive advantage over those firms. If a foreign firm cannot beat local firms either on quality or price, conquering market share is impossible. Misguided attempts to do so can be costly and so firms should be continuously evaluating if the income generated by certain international markets really exceeds the expenses incurred by local operations.

5.3 The limitations of the study and further research opportunities

Some limitations of this study should also be mentioned. First, the research design led to a small sample of only four cases. Therefore, the findings have a strong intuitive and conceptual appeal and statistical generalisability from such a small sample is not appropriate (see discussion in chapter 3.7). This study researched only SMEs and transferring some of the findings as such to the context of large firms would be inappropriate, especially if they are operating in an industry other than manufacturing. It should be also borne in mind that the majority of the data was gathered at the time of an economic boom, which certainly influenced results.

There are some research topics or areas that are omitted from this study. Although the roots of the dynamic capabilities approach are in the resource-based view (Wernerfelt 1984; Barney 1991; Peteraf 1993) and they are associated closely[31], in this study the resource-based view is not given much space. Both approaches do focus on competencies/capabilities and firm

[31] Helfat et al. (2007) term the resource-based view a “sister” of the dynamic capabilities view.

performance, for example, however dynamic capabilities emphasises dynamics. On the other hand, there have been articles central to the resource-based view that have dynamic elements as well (e.g. Wernerfelt 1984; Dierickx and Cool 1989). Moreover, Helfat and Peteraf (2003) suggested that there can be a "dynamic resource-based view". In spite of these more dynamic versions of resource-based view, this study strongly emphasises the dynamic capabilities approach because the phenomenon is increasingly gaining the attention of management scholars and practitioners around the world. In addition, there are also processes other than just those related to opportunity search, resource acquisition and resource reconfiguration that may underpin dynamic capabilities. This is especially the case concerning the content of these processes. For example, when resource acquisition processes are studied the emphasis could be placed on networks and resource acquisition through alliances instead of on investments in human resources, new technology and gathering financing. However, in this study networking capabilities are not afforded much attention since the phenomenon has already been studied from several perspectives and the research data would not have been able to provide anything new to the network-research.

Furthermore, this study has not devoted a great deal of attention to the relationship between environmental turbulence and dynamic capabilities. Researchers within the field are divided into those who relate dynamic capabilities with highly dynamic environments (Teece et al. 1997), those who acknowledge the relevance of the concept in both stable and dynamic environments (Eisenhardt and Martin 2000; Zollo and Winter 2002), and those who simply ignore the characteristics of the specific environment (e.g. Makadok 2001). Although, the issue has been very popular among dynamic capabilities researchers, in this study it was not dwelt upon because the studied firms were operating in international markets and it was assumed that those markets are always quite dynamic from the perspective of SMEs. There were clear differences between for example the intensity of competition between different industries (e.g. windows production vs. software production) but examples of dynamic capabilities were identified from the international growth of each studied firm. Therefore this study's findings respond to the requirement set by Barreto (2010, 276) who proposed that empirical studies should explicitly compare the effects of similar dynamic capabilities in two or more clearly distinct environmental conditions. Suggesting that, for example, dynamic internationalisation capabilities alone would manifest as international growth of an SME would be a clear overstatement but dynamic capabilities introduced in the study may provide a starting point for such comparisons.

From the perspective of international growth, the dimension of time is hardly emphasised explicitly in this study. According to Jones and Coviello

(2005) time is fundamental to internationalisation research in that each firm has a history composed of internationalisation events occurring at specific points in time. For example, establishing a new type of cross-border relationship is a landmark in the firm's chronology of internationalisation, as is the establishment of a relationship in new country. In this study, the most significant cross-border relationships in the international growth processes of the SMEs are mentioned, often also with the year when the relationship started. In addition, basic facts like the indicative years of foundation of the studied firms are introduced in the study. However, dimensions of time such as the duration of certain cross-border negotiations or exact durations of certain cross-border relations have not been to the forefront in this study. In other words, time-related dimensions of international growth are reported somewhat loosely because when the development of processes is studied, the exact measuring of time would be very challenging, and in some cases impossible.

This study focuses only on the outward dimension of international growth (i.e. exports and foreign direct investment) and hence the inward dimension (i.e. imports) is, excluded from the study, in spite of being an element that could be seen as a part of the international growth process of the firm. Furthermore, it should also be noted that the international growth of SMEs was measured by relying mainly on subjective evaluations made by managers, which could be said to reduce the credibility of these figures. The reason behind the choice of source was simple; objective data was not always available. However, by studying numerous secondary sources, it was ensured that each case firm really had achieved growth from its operations in international markets. Moreover, tests conducted with the precise numbers received from secondary data sources (when available), suggest that these evaluations are indicative.

The limitations suggest avenues for future research. It would be interesting to follow the studied SMEs in the longer term. The retrospective glance at the firms recent evolution revealed that the recession brought many challenges to each of them. Currently it seems that the firms are surviving and none have gone bankrupt. However, there have already been changes in ownership and the market downturn clearly increased the dynamics in the firms and in their business environments.

When the impact of recession is studied, it will be interesting to see whether the studied SMEs have been able to maintain those capabilities identified from their operations at the time of international growth. In other words, financial problems may reduce firm-specific dynamic capabilities since the maintenance of them can demand investment in supporting processes. Examples can include employing new specialists, investment in R&D or in training. However, the recession forced many SMEs to cut expenditure, which may

have meant that firms lost some of their dynamic capability. This again highlights how challenging the management of an SME can be. Management are expected to simultaneously plan for tomorrow and be able to modify their resource-base to cope better with the current business environment. So, the managerial dilemma is to decide which resources or capabilities are essential to maintain while the firm's business is suffering, and which resources or capabilities are less vital to the business and can be cut. For example, taking care of employees during the recession will probably pay back when the new growth starts and there is lack of skilled personnel. However, sometimes SMEs just need to decrease their costs and this usually requires that people have to be laid off.

Finally, although the SMEs studied here had achieved international expansion during the research period, the focus of the study was not on the relationship between dynamic capabilities and a firm's performance. However, it would be interesting also to study those SMEs whose international operations decreased during the same period. What kind of dynamic capabilities could be identified from these firms? If the firms shared very similar processes with SMEs that did expand internationally, could it be argued that a firm's performance is more dependent on the industry it operates in than on its dynamic capabilities? On the other hand, if failed SMEs clearly lacked dynamic capabilities, could it be argued that dynamic capabilities play an important role in a firm's performance?

The above examples just go to show that there still remain many questions to be answered on the study of dynamic capabilities in the context of international growth.

REFERENCES

Adner, Ron – Helfat, Constance, E. (2003) Corporate Effects and Dynamic Managerial Capabilities. *Strategic Management Journal*, Vol. 24 (10), 1011–1025.

Aharoni, Yair (1966*) The Foreign Investment Decision Process*. Harvard University, Boston, MA.

Ahokangas, Petri (1998) *Internationalisation and Resources. An Analysis of Processes in Nordic SMEs.* Dissertation, Acta Wasaensia, No. 64, Business Administration 24, Management and Organization. Vaasa: University of Vaasa.

Ahokangas, Petri – Juho, Anita – Haapanen, Lauri (2010) Against all odds: Towards the theory of temporary competitive advantage in internationalization. In: *Enhancing Competences for Competitive Advantage (Advances in Applied Business Strategy, Volume 12)* ed. Aime Heene, 121–144. Emerald Group Publishing Limited.

Alasuutari, Pertti (1994) *Laadullinen tutkimus*. 2nd edition. Vastapaino, Tampere.

Alasuutari, Pertti (2000) *Researching Culture: Qualitative methods and cultural studies.* Sage, Thousand Oaks, CA.

Alsos, Gry Agnete – Borch, Odd-Jarl – Ljunggren, Elisabet – Madsen, Einar Liar (2007) The Dynamic Capability Concept and its Operationalization. *Paper presented at the Babson College Entrepreneurship Research Conference*, IE Business School, Madrid, Spain, June 7–9, 2007.

Alvarez, Sharon – Barney Jay (2007) Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, Vol. 1, 11–26.

Amaratunga, Dilanthi – Baldry, D. (2001) Case study methodology as a means of theory building: performance measurement in facilities management organisations. *Work Study*, Vol. 50 (3), 95–104.

Ambrosini, Véronique – Bowman, Cliff (2009) What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews*, Volume 11 (1), 29–49.

Ambrosini, Véronique – Bowman, Cliff – Collier, Nardine (2009) Dynamic Capabilities: An exploration of how firms renew their resource base. *British Journal of Management*, Vol. 20, 9–24.

Amit, Rafael – Schoemaker, Paul J. H. (1993) Strategic Assets and Organisational Rent. *Strategic Management Journal*, Vol. 14 (1), 33–46.

Andersen, Otto (1993) On the internationalisation process of firms: A critical analysis. *Journal of International Business Studies*, Vol. 24 (2), 209–231.

Ansoff, Igor (1965) *Corporate Strategy*. McGraw-Hill, New York, NY.

Aragon-Correa, Alberto – Sharma, Sanjay (2003) A contingent natural-resource based view of proactive environmental strategy. *Academy of Management Review*, Vol. 28 (1), 71–88.

Ardichvili, Alexander – Cardozo, Rickhard N. – Harmon, B. – Vadakath, S. (1998) Towards a Theory of New Venture Growth. In: *Frontiers of Entrepreneurship Research*, eds. P. D. Reynolds – W. D. Bygrave – N. M. Carter – S. Manigart – C. M. Mason – G. D. Meyer – K. S. Shaver. Wellesley, MA: Babson College.

Ardichvili, Alexander – Cardozo, Rickhard N. – Ray, Sourav (2003) A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, Vol. 18 (1), 105–123.

Aspelund, Arild – Madsen, Tage Koed – Moen, Oystein (2007) A review of the foundation, international marketing strategies, and performance of international new ventures. *European Journal of Marketing*, Vol. 41 (11/12), 1423–1448.

Augier, Mie – Teece, David J. (2006) Understanding complex organization: The role of know-how, internal structure and human behavior in the evolution of capabilities. *Industrial Corporate Change*, Vol. 15 (2), 395–416.

Augier, Mie – Teece, David J. (2007) Dynamic Capabilities and Multinational Enterprise: Penrosean Insights and Omissions. *Management International Review*, Vol. 47 (2), 175.

Augier, Mie – Teece, David J. (2009) Dynamic Capabilities and the Role of Managers. *Organization Science*, Vol. 20 (2), 410–421.

Autio, Erkko – Sapienza, Harry – Almeida, James (2000) Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, Vol. 43 (5), 909–924.

Bamberger, Ingolf (1983) Value systems, strategies and performance in small and medium sized firms. *International Small Business Journal*, Vol. 1 (4), 25–39.

Barney, Jay (1991) Firm Resources and Sustained Competitive Advantage. *Journal of Management*, Vol. 17 (1), 99–120.

Barney, Jay (2001a) Is the resource-based "view" a useful perspective for strategic management research? Yes. *Academy of Management Reviews*, Vol. 26, 41–56.

Barney, Jay (2001b) Resource-based theories of competitive advantage: a ten year retrospective on the resource-based view. *Journal of Management*, Vol. 27, 643–650.

Barreto, Ilídio (2010) Dynamic Capabilities: A Review of Past Research and an Agenda for the Future. *Journal of Management*, Vol. 36, 256–280.

Barringer, Bruce R. – Greening, Daniel W. (1998) Small Business Growth Through Geographic Expansion: a comparative case study. *Journal of Business Venturing*, Vol. 13, 467–492.

Bell, Jim – McNaughton, Rod – Young, Stephen (2001) "Born-again global" firms- an extension to the "born global" phenomenon. *Journal of International Management*, Vol. 7 (3), 173–189.

Benner, Mary J. – Tushman, Michael L. (2003) Exploitation, exploration and process management: the productivity dilemma revisited. *Academy of Management Review*, Vol. 28 (2), 238–256.

Bernard, H. Russel (1988) *Research methods in cultural anthropology*. Sage, Newbury Park, CA.

Berry, Maureen (1996) Technical entrepreneurship, strategic awareness and corporate transformation in small high-tech firms. *Technovation*, Vol. 16, 487–498.

Bettis, Richard – Hitt, Michael (1995) The new competitive landscape. Special Issue. *Strategic Management Journal*, Vol. 16, 7–20.

Bhaskar Ray (1978) *A Realist Theory of Science*. Harvester Press, Hassocks.

Bilkey, Warren – Tesar, George (1977) The export behaviour of smaller-sized Wisconsin manufacturing firms. *Journal of International Business Studies*, Vol. 8 (1), 93–98.

Bingham, Christopher – Eisenhardt, Kathleen – Furr, Nathan (2007) What makes a process a capability? Heuristics, strategy and effective capture of opportunities. *Strategic Entrepreneurship Journal*, Vol. 1, 27–47.

Birley, Sue – Cromie, Stan – Myers, Andrew (1991) Entrepreneurial networks: their emergence in Ireland and overseas. *International Small Business Journal*, Vol. 9 (4), 56–74.

Blyler, Maureen – Coff, Russell W. (2003) Dynamic capabilities, social capital, and rent appropriation: ties that split pies. *Strategic Management Journal*, Vol. 24, 677–686.

Bonoma, Thomas V. (1985) Case research in marketing: Opportunities, problems and a process. *Journal of Marketing Research*, Vol. 22 (2), 199–208.

Borch, Odd-Jarl – Madsen, Einar Lier (2007) Dynamic Capabilities Facilitating Innovative strategies in SMEs. *International Journal of Technoentrepreneurship*, Vol. 1 (1), 109–125.

Bowman, Cliff – Ambrosini, Véronique (2003) How the resource-based and the dynamic capability views of the firm inform competitive and corporate level strategy. *British Journal of Management*, Vol. 14, 289–303.

Bremmer, R. (2000) Big, bigger, biggest. *Automotive World*, June 2000, 36–44.

Brown, Shona – Eisenhardt, Kathleen (1998) *Competing on the Edge*. Harvard Business School Press, Boston, MA.

Bruni, Daniele – Verona, Gianmario (2009) Dynamic marketing capabilities in science-based firms: an exploratory investigation of the pharmaceutical industry. *British Journal of Management*, Vol. 20, 101–117.

Brush, Candida G. – Vanderwerf, Pieter A. (1992) A Comparison of Methods and Sources for Obtaining Estimates of New Venture Performance. *Journal of Business Venturing*, Vol. 7 (2), 157–170.

Buckley, Peter J. – Chapman, Malcolm (1996) Theory and Method in International Business Research. *International Business Review*, Vol. 5 (3), 233–245.

Buckley, Peter J. – Ghauri, Pervez N. (1993) Introduction and overview. In: *The internationalization of the firm: A Reader*, eds. Peter J. Buckley – Pervez N. Ghauri, ix–xxi. London: Academic Press.

Calof, Jonathan L. – Beamish, Paul W. 1995. Adapting to Foreign Markets: Explaining Internationalisation. *International Business Review*, Vol. 4 (2), 115–131.

Cantwell, John (2000/2001) *Innovation, Profits and Growth: Schumpeter and Penrose*. Working Papers (Economics and Management Series) DP No. 427, Vol. XIII (2000/2001). United Kingdom: Reading University Business School.

Castrogiovanni, Gary J. (1991) Environmental munificence: A theoretical assessment. *Academy of Management Review*, Vol. 16, 542–563.

Cavusgil, S. Tamer (1980) Organisational Characteristics Associated with Export Activity. *Journal of Management Studies*, Vol. 21 (1), 1–22.

Cepeda, Gabriel – Vera, Dusya (2007) Dynamic capabilities and operational capabilities: A knowledge management perspective. *Journal of Business Research*, Vol. 60, 426–437.

Chakravarthy, Balaji S. – White, Roderick E. (2002) Strategy Process: Forming, Implementing and Changing Strategies. In: *Handbook of Strategy and Management*, eds. Andrew Pettigrew – Howard Thomas – Richard Whittington, 182–205. London: Sage Publications.

Chell, Elizabeth (1998) Critical Incident Technique. In: *Qualitative Methods and Analysis in Organisational Research: A Practical Guide*, eds. Gillian Symon – Catherine Cassell, London: Sage Publications.

Chell, Elizabeth – Allman, Kurt (2003) Mapping the motivations and intentions of technology oriented entrepreneurs. *R&D Management*, Vol. 33 (2), 117–136.

Chell, Elizabeth – Haworth, Jean (1992). A typology of business owners and their orientation towards growth. In: *Small Enterprise Development*, ed. K. Caley, 96–105. London: Chapman.

Christensen, Clayton (1997) *The Innovator's Dilemma*. Boston: Harvard Business School Press.

Christie, Michael – Rowe, Patricia – Perry, Chris – Chamard, John (2000) Implementation of realism in case study research methodology. In: *Proceedings of Entrepreneurial SMES - engines for growth in the millenium: International Council for Small Business. World Conference ICSB*, Brisbane, Qld., 7–10 June, ed. E. Douglas.

Chung, Lai Hong – Gibbons, Patrick T. – Schoch, Herb (2006) The management of information and managers in subsidiaries of multinational corporations. *British Journal of Management*, Vol. 17, 153–165.

Churchill, Neil C. – Lewis, Virginia L. (1983) The Five Stages of Small Business Growth. *Harvard Business Review*, Vol. 3, 30–50.

Cillo, Paola – Verona, Gianmario – Vicari Salvio (2007) The interlink between resources and capabilities: towards a theoretical frame for the development of dynamic capabilities. *International Journal of Learning and Intellectual Capital*, Vol. 4 (1), 111–131.

Coffey, Amanda – Atkinson, Paul (1996) *Making sense of qualitative data: Complementary research strategies*. Sage Publications, Thousand Oaks, CA.

Coh, Marko – Salmi, Pekka – Torkkeli, Marko (2005) Dynamic Capabilities in SMEs - The integration of external competencies. *Paper presented at the Strategic Management Society conference*, Orlando, FL, USA, October 23–26, 2005.

Collis, David J. (1994) Research note: how valuable are organizational capabilities? *Strategic Management Journal*, Vol. 23, 1095–1121.

Cooper, Robert G. (1979) The dimensions of industrial new product success and failure. *Journal of Marketing*, Vol. 43 (4), 93–103.

Coviello, Nicole – McAuley, Andrew (1999) Internationalisation and the smaller firm: a review of contemporary empirical research. *Management International Review*, Vol. 39 (3), 223–240.

Crossan, Mary – Lane, Henry – White Roderick (1999) An organizational learning framework: from intuition to institution. *Academy of Management Review*. Vol. 24 (3), 522–537.

Cyert, Richard – March, James G. (1963) *A Behavioural Theory of the Firm*. Prentice Hall, Englewood Cliffs.

Czinkota, Michael R. (1982) *Export Development Strategies: U.S Promotion Policy*. Praeger, New York.

D'Aveni, Rickhard A. (1994*) Hypercompetition: Managing the Dynamics of Strategic Maneuvering.* Free Press, New York.

Daft, Rickhard L. – Sormunen, Juhani – Parks, Don (1988) Chief executive scanning, environmental characteristics and company performance: an empirical study. *Strategic Management Journal*, Vol. 9, 123–139.

Daniels, John D. – Cannice, Mark V. (2004) Interview studies in international business research. In: *Handbook of qualitative research methods for international business*, eds. Rebecca Marschan-Piekkari – Catherine Welch, 185–204. Cheltenham: Edward Elgar Publishing.

Danneels, Erwin (2002) The dynamics of product innovation and firm competences. *Strategic Management Journal*, Vol. 23, 1095–1121.

Danneels, Erwin (2008) Organizational antecedents of second-order competences. *Strategic Management Journal*, Vol. 29, 519–543.

Das, T. K. (2006) Strategic alliance temporalities and partner opportunism. *British Journal of Management*, Vol. 17 (1), 1–22.

Davidsson, Per – Kirchhoff, Bruce – Hatemi-J, Abdulnasser – Gustavsson, Helena (2002) Empirical Analysis of Business Growth Factors Using Swedish Data. *Journal of Small Business Management*, Vol. 40 (4), 332.

Day, George S. (1994) The capabilities of market-driven organisations. *Journal of Marketing*, Vol. 58 (4), 37–61.

Delmar, Frédéric (1997) Measuring growth: methodological considerations and empirical results. In: *Entrepreneurship and SME Research: On its Way to the Next Millenium*, eds. Rik Donckels – Asko Miettinen, 199–216. Aldershot: Ashgate.

Denrell, Jerker – Fang, Christina – Winter, Sidney G. (2003) The Economics of Strategic Opportunity. *Strategic Management Journal*, Vol. 24 (10) Special Issue, 977–990.

Denzin, Norman K. (1989) Interpretative interactionism. *Applied Social Reseach Methods Series*, Vol. 16. Newbury Park: Sage.

Denzin, Norman K. – Lincoln, Yvonne S. (2003) Introduction: The discipline and practice of qualitative research. In: *The Landscape of Qualitative Research*, eds. Norman Denzin – Yvonne Lincoln, 1–46. London: Sage.

Denzin, Norman K. – Lincoln, Yvonne S. (2005) Introduction. In: *The Handbook of Qualitative Research*, eds. Norman Denzin – Yvonne Lincoln, 1–32. London: Sage.

Dhanaraj, Charles – Beamish, Paul W. (2003) A Resource-Based Approach *to* the Study of Export Performance. *Journal of Small Business Management*, Vol. 41 (3), 242–261.

Dichtl, Erwin – Leibold, M. – Koglmayr, H.-G. – Muller, S. (1984) The Export Decision of Small and Medium-Sized Firms: A Review. *Management International Review*, Vol. 24 (2), 49–60.

Dierickx, Ingemar – Cool, Karel (1989) Asset Stock Accumulation and Sustainability of Competitive Advantage. *Management Science*, Vol. 35 (12), 1504–1511.

Dubois, Anna – Gadde, Lars-Erik (2002) Systematic combining: An abductive approach to case research. *Journal of Business Research*, Vol. 55, 553–560.

Dunning, John H. (1980) Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, Vol. 11 (1), 9–31.

Easterby-Smith, Mark – Lyles, Marjorie A. – Peteraf, Margaret A. (2009) Dynamic Capabilities: Current Debates and Future Directions. *British Journal of Management*, Vol. 20 (s1), S1–S8.

Easterby-Smith, Mark – Prieto, Isabel (2008) Dynamic capabilities and knowledge management: an integrative role for learning? *British Journal of Management*, Vol 19 (3), 235–249.

Easterby-Smith, Mark – Thorpe, Richard – Lowe, Andy (1991*) Management research, an introduction.* Sage, London.

Eisenhardt, Kathleen M. (1989) Building Theories from Case Study Research. *Academy of Management Review*, Vol. 14 (4), 532–550.

Eisenhardt, Kathleen M. – Martin, Jeffrey A. (2000) Dynamic Capabilities: What Are They? *Strategic Management Journal*, Vol. 21, 1105–1121.

Eisenhardt, Kathleen M. – Graebner, Melissa E. (2007) Theory Building From Cases: Opportunities and Challenges. *Academy of Management Journal*, Vol. 50 (3), 8.

Elfring, Tom – Hulsink, Willem (2003) Networks in entrepreneurship: The case of high-technology firms. *Small Business Economics*, Vol. 21, 409–422.

Eriksson, Päivi – Kovalainen, Anne (2008) *Qualitative Methods in Business Research*. Sage, London.

Erminio, Fina – Rugman, Alan M. (1996) A Test of Internationalisation Theory and Internationalisation Theory: The Upjohn Firm. *Management International Review*, Vol. 36 (3), 199–215.

European Union (2003) Extract of Article 2 of the Annex of Recommendation 2003/361/EC. Accessed 6.5.2009.

Faltin, Günter (2007) *Erfolgreich gründen Der Unternehmer als Künstler und Komponist.* Deutsche Industrie- und Handelskammer, Berlin.

Flanagan John C. (1954) The Critical Incident Technique. *Psychological Bulletin*, Vol. 51 (4), 327–359.

Fletcher, Richard (2001) A holistic approach to internationalisation. *International Business Review*, Vol. 10 (1), 25–49.

Gabrielsson, Mika – Kirpalani, Manek – Dimitratos, Pavlos – Solberg, Carl Arthur – Zucchella, Antonella (2008) Born globals: Propositions to help advance the theory. *International Business Review*, Vol. 17, 385–401.

Gabrielsson, Peter – Gabrielsson, Mika – Darling, John – Luostarinen, Reijo (2006) Globalizing Internationals: Product Strategies of ICT Manufacturers. *International Marketing Review*, Vol. 23 (6), 650–671.

Gankema, Harold G. J. – Snuif, Henoch R. – van Dijken, Koos (1997) The internationalisation process of small and medium sized enterprises: an evaluation of the stage theory. In: *Entrepreneurship and SME Research: On its Way to the Next Millenium*, eds. Rik Donckels – Asko Miettinen, 185–197. Aldershot, UK: Ashgate.

Gankema, Harold – Snuif, Henoch R. – Zwart, Peter S. (2000) The internationalization process of small and medium-sized enterprises: an evaluation of stage theory. *Journal of Small Business Management*, Vol. 38 (4), 15–27.

Garnier, Gerard (1982) Comparative export behavior of small Canadian firms in the printing and electrical industries. In: *Export Management: An International Context*, eds. Michael R. Czinkota – George Tesar, 113–131. New York: Praeger.

George, Alexander L. – Bennett, Andrew (2004) *Case studies and theory development in the social sciences*. MIT Press, Cambridge, MA.

Ghanam, Denise – Cox, Philip (2007) Dynamic capabilities: the strategy-HRM intersect? *International Journal of Learning and Intellectual Capital*, Vol. 4 (1), 57–74.

Ghauri, Pervez (2004) Designing and conducting case studies in international business research. In*: Handbook of qualitative research methods for international business*, eds. Rebecca Marschan-Piekkari – Catherine Welch, 109–124. Cheltenham: Edward Elgar Publishing.

Gibb, Allan – Davies, Leslie (1990) In pursuit of frameworks for the development of growth models of the small business. *International Small Business Journal*, Vol. 9 (1), 15–32.

Gilbert, David C. – Morris, Lisa (1995) The Usefulness of the Critical Incident Technique Analysis in Isolating Travel Satisfactions. *International Journal of Contemporary Hospitality Management*, Vol 7 (4), 5–7.

Giroux, Isabelle (2009) Problem Solving in Small Firms: An Interpretative Study. *Journal of Small Business and Entreprise Development*, Vol. 16 (1), 167–184.

Gold, Jeff – Holman, David – Thorpe, Richard (2002) The Role of Argument Analysis and Storytelling in Facilitating Critical Thinking. *Management Learning*, Vol. 33 (3), 371–388.

Grant, Robert (1991) The Resource-Based Theory of Competitive Advantages; implications for strategy formulation. *California Management Review*, Vol. 33 (3), 114–135.

Grant, Robert (1996) Towards a knowledge-based theory of the firm. *Strategic Management Journal*, Vol. 17, 109–122.

Greiner, Larry (1972) Evolution and revolution as organizations grow. *Harvard Business Review*, Vol. 50 (4), 37–46.

Griffith, David A. – Harvey, Michael G. (2001) A Resource Perspective of Global Dynamic Capabilities. *Journal of International Business Studies*, Vol. 32 (3), 597–606.

Grünbaum, Niels N. (2007) Identification of ambiquity in the case study research typology: what is a unit of analysis? *Qualitative Market Research: An International Journal*, Vol. 10 (1), 78–97.

Grönroos, Christian (1999) Internationalization strategies for services. *Journal of Services Marketing*, Vol. 13 (4/5), 290–297.

Guba, Egon – Lincoln, Yvonna (2005) Paradigmatic controversies, contradictions and emerging confluences. In: *The Sage Handbook of Qualitative Research*, eds. Norman Denzin – Yvonna Lincoln, 191–215. Beverly Hills: Sage.

Guba, Egon – Lincoln, Yvonna (1994) Competing paradigms in qualitative research. In: *The Sage Handbook of Qualitative Research*, eds. Norman Denzin – Yvonne Lincoln, 99–117. Beverly Hills: Sage.

Gummesson, Evert (1991) *Qualitative Methods in Management Research.* Sage Publications Inc., USA.

Gummesson, Evert (2003) All Research is Interpretive. *Journal of Business & Industrial Marketing*, Vol. 18 (6/7), 482–492.

Halinen, Aino – Törnroos, Jan-Åke (1995) The meaning of time in the study of industrial buyer-seller relationships. In: *Business Marketing: An interaction and network perspective*, eds. K. Möller – D. Wilson, 493–429. Boston: Kulwer Academic Publishers.

Hansen, David J. – Shrader, Rodney – Monllor, Javier (2011) Defragmenting Definitions of Entrepreneurial Opportunity. *Journal of Small Business Management*, Vol. 49 (2), 283–304.

Harreld, Bruce J. – O'Reilly, Charles A. – Tushman, Michael L. (2007) Dynamic Capabilities at IBM: Driving Strategy into Action. *California Management Review*, Vol. 49 (4).

Hashai, Niron – Tamar, Almor (2004) Gradually internationalizing 'born global' firms: an oxymoron? *International Business Review*, Vol. 13 (4), 465–483.

Hätönen, Jussi (2008) *Managing the process of outsourcing. Examining the process of outsourcing product-development activities in software firms. Dissertation.* Turku: Turun kauppakorkeakoulun julkaisuja A–8.

Haywood-Farmer, John (1988) A conceptual model of service quality. *International Journal of Operations & Production Management*, Vol. 8 (6), 19–29.

Hedlund, Gunnar – Kverneland, A. (1984) *Investing in Japan- Experience of Swedish Firms.* IBB, Stockholm School of Economics, Stockholm, Sweden.

Heinonen, Jarna (2005) Miksi tutkia kasvuyrittäjyyttä? In: *Kasvun olemus ja reitit. Fokuksessa suomalaiset pk-yritykset*, ed. Jarna Heinonen. Publications of Small Business Insitute, Turku School of Economics, Tampere, Finland.

Helfat, Constance E. (1997) Know-how and Asset Complementarity and Dynamic Capability Accumulation: The Case of R&D. *Strategic Management Journal*, Vol. 24 (10), 997–1010.

Helfat, Constance E. – Eisenhardt, Kathleen M. (2004) Inter-temporal economies of scope, organizational modularity, and the dynamics of diversification. *Strategic Management Journal*, Vol. 25 (13), 1217–1232.

Helfat, Constance E. – Finkelstein, Sydney – Mitchell, Will – Peteraf, Margaret – Singh, Harbir – Teece David J. – Winter, Sidney G. (2007) *Dynamic Capabilities- Understanding Strategic Change In Organizations*. Blackwell Publishing.

Helfat, Constance E. – Peteraf, Margaret.A. (2003) The Dynamic Resource-based View: Capability Lifecycles. *Strategic Management Journal*, Vol. 24, 997–1010.

Hellman, Pasi (1996) *Internationalization of the Finnish Financial Service Sector*. Turku: Publications of Turku School of Economics and Business Administration A–6.

Hirsjärvi, Sirkka – Remes, Pirkko – Sajavaara, Paula (2001) *Tutki ja kirjoita*. Kustannusosakeyhtiö Tammi, Helsinki.

Hitt, Michael A. – Ireland, Duane – Hoskisson, Robert E. (2001) *Strategic Management: Competitiveness and Globalisation* (4th ed.). South West College Publishing, Cincinnati.

Holbrook, Daniel – Cohen, Wesley – Hounshell, David – Klepper, Steven (2000) The nature, sources, and consequences of firm differences in the early history of the semiconductor industry. *Strategic Management Journal*, Special Issue 21, 1017–1041.

Holmlund, Maria – Kock, Sören – Vanyushyn, Vladimir (2007) Small and Medium-sized Enterprises' Internationalization and the Influence of Importing on Exporting. *International Small Business Journal*, Vol. 25 (5), 459–459.

Håkansson, Håkan (1982) *International Marketing and Purchasing of Industrial Goods: An Interaction Approach*. John Wiley & Sons, Chichester, UK.

Håkansson, Håkan – Johanson, Jan (1992) A Model of Industrial Network. In: *Networks, A New View of Reality*, eds. B. Axelsson – G. Easton, 145–149. Industrial London: Routledge.

Huber, George P. (1991) Organizational Learning: The Contributing Processes and the Literatures. *Organization Science*, Vol. 2 (1), 88–115.

Hurmerinta-Peltomäki, Leila (2001) *Time and Internationalisation. The Shortened Adoption Lag in Small Business Internationalisation.* Dissertation. Turku: Turun kauppakorkeakoulun julkaisuja A–7.

Hurry, Dileep (1994) Shadow options and global exploration strategies. In: *Advances in Strategic Management. Interorganizational relations and interorganizational strategies*, eds. P. Shrivastava – A. Huff – J. Dutton, 229–248. Greenwich, CT: JAI Press Inc.

Hägg, Ingemund – Hedlund, Gunnar (1978) Case-studies in Social Science Research. *Working paper no. 78–16, April.* Brussels: European Institute for Advanced Studies in Management.

Iansiti, Marco (1995) Shooting the rapids: managing product development in turbulent environments. *California Management Review*, Vol. 38 (1), 37–58.

Ireland, Duane – Hitt, Michael A. – Sirmon, David G. (2003) A model of strategic entrepreneurship: the construct and its dimensions. *Journal of Management*, Vol. 29 (6), 963–989.

Jaffe, Eugene D. – Pasternak, Hanoch – Nebenzahl, Israel (1988) The export behavior of small Israeli manufacturers. *Journal of Global Marketing*, Vol. 2 (2), 27–49.

Jantunen, Ari (2005) *Dynamic Capabilites and Firm Performance*. Dissertation. Lappeenranta: Lappeenranta University of Technology: Acta Universitatis Lappeenrantaensis 221.

Jantunen, Ari – Nummela, Niina – Puumalainen, Kaisu – Saarenketo, Sami (2005b) Strategic Orientations and International Performance. *Research paper presented in Global Entrepreneurship Research Conference*, San Francisco, USA, March 9–12, 2005.

Jantunen, Ari – Nummela, Niina – Puumalainen, Kaisu – Saarenketo, Sami (2008) Strategic orientations of born globals – Do they really matter? *Journal of World Business*, Vol. 43 (2), 158–170.

Jantunen, Ari – Puumalainen, Kaisu – Saarenketo, Sami – Kyläheiko, Kalevi (2005a) Entrepreneurial Orientation, Dynamic Capabilities and International Performance. *Journal of International Entrepreneurship*, Vol. 3 (3).

Jekel, Robert (2009) *The Quality Aspects of Dynamic Capabilities: Succesful Practices of German Manufacturers in China*. Dissertation. Konstantz: University of St.Gallen.

Jobber, David (1991) Choosing a Survey Method in Management Research. In: *The management Research Handbook*, eds. N. C. Smith – P. Dainty, 174–180. London: Routledge.

Johannessen, John-Arild – Olaisen, Johan – Olsen, Björn (1999) Kunnskapsdelse: Fra industrisamfunnet til kunnskapssamfunnet. In: *Underveis til fremtiden. Kunnskapsledelse i teori og praksis* eds. K. Friedman – J. Olaisen. Fagbokforlaget.

Johanson, Jan – Vahlne, Jan-Erik (1977) The Internationalisation Process of the Firm - A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, Vol. 8, 23–32.

Johanson, Jan – Vahlne, Jan-Erik (1990) The mechanism of internationalization. *International Marketing Review*, Vol. 7 (4), 11–24.

Johanson, Jan – Wiedersheim-Paul, Finn (1975) The Internationalisation of the Firm: Four Swedish Cases. *Journal of Management Studies*. Vol. 3 (3), 305–322.

Jones, Gary K. – Lanctot, Aldor – Teegen, Hildy J. (2001) Determinants and performance impacts of external technology acquisition. *Journal of Business Venturing*, Vol. 16 (3), 255–283.

Jones, Marian V. (1999) The Internationalisation of Small High-technology Firms. *Journal of International Marketing*, Vol. 7 (4), 15–41.

Jones, Marian V. – Coviello, Nicole E. (2005) Internationalisation: conceptualizing an entrepreneurial process of behaviour in time. *Journal of International Business Studies*, Vol. 36 (3), 284–303.

Järvensivu, Timo – Törnroos, Jan-Åke (2010) Case study research with moderate constructionism: Conceptualization and practical illustration. *Industrial Marketing Management*, Vol. 39, 100–108.

Kakati, M. (2003) Success criteria in high-tech new ventures. *Technovation*, Vol. 23, 447–457.

Karim, Samina (2006) Modularity in organizational structure: the reconfiguration of internally developed and acquired business units. *Strategic Management Journal*, Vol. 27, 799–823.

Karim, Samina – Mitchell, Will (2000) Reconfiguring business resources following acquisitions in the U.S. medical sector, 1978–1995. *Strategic Management Journal*, Special Issue, Vol. 21, 1061–1081.

Kay, Neil (2010) Dynamic capabilities as context. *Industrial and Corporate Change*, Vol. 19 (4), 1205–1223.

Kaynak, Erdener – Ghauri, Pervez – Olofsson-Bredenlow, Torbjörn (1987) Export behavior of Swedish firms. *Journal of Small Business Management*, Vol. 25 (2), 26–32.

Kellogg, Deborah – Chase, Richard B. (1995) Constructing an empirically derived measure for customer contact. *Management Science*, Vol. 41 (11), 1734–1749.

Keupp, Marcus – Gassmann, Oliver (2009) The past and the future of international entrepreneurship: a review and suggestions for developing the field. *Journal of Management*, Vol. 35, 600–633.

Kim, Chan W – Mauborgne, Renée (2004) Blue ocean strategy. *Harvard Business Review*, Vol. 82, 76–85.

Kincaid, Harry V. – Bright, Margaret (1957) The Tandem Interview: A Trial of the Two-Interviewer Team. *Public Opinion Quarterly Summer57*, Vol. 21 (2), 304–312.

King, Nigel (1994) The qualitative research interview. In: *Qualitative methods in organisational research. A practical guide*, eds. C. Cassell – G. Symon, 14–36. London: Sage Publications.

Kirk, Jerome – Miller, Mark L. (1986) *Reliability and validity in qualitative research.* Sage Publications, Thousand Oaks, CA.

Kirkeby, Ole-Fogh (1990) Abduction In: *Vetenskapsteori och metodlära. En introduktion*, ed. H. Anderson. Studentlitteratur.

Kjellman, Andreas – Eriksson, H. (2001) Verksamhetsförutsättningar i västra Nyland. *Aronia Business Papers.* Ekenäs: Ekenäs Tryckeri Ab.

Knight, Gary (2000) Entrepreneurship and marketing strategy: The SME under globalization. *Journal of International Marketing*, Vol. 8, 12–33.

Knight, Gary – Cavusgil, Tamer (1996) The born global firm: a challenge to traditional internationalization theory. *Advances in International Marketing*, Vol. 8, 11–26.

Koh, A. C. (1989) An evaluation of the current marketing practices of United States firms. *Developments in Marketing Science*, Vol. 12, 198–203.

Korhonen, Heli – Luostarinen, Reijo – Welch, Lawrence (1996) Internationalization of SMEs: Inward-Outward patterns and government policy. *Management International Review*, Vol. 36 (4), 315–329.

Kotler, Philip – Armstrong, Gary (1994) *Principles of Marketing*. Prentice-Hall, Englewood Cliffs, NJ.

Kraaz, Matthew S. – Zajac, Edward J. (2001) How organizational resources affect strategic change and performance in turbulent environments: Theory and evidence. *Organization Science*, Vol. 12, 632–657.

Kuemmerle, Walter (2002) Home base and knowledge management in international ventures. *Journal of Business Venturing*, Vol. 17 (2), 99–122.

Kuemmerle, Walter (2005) The Entrepreneur's Path to Global Expansion. *MIT Sloan Management Review*, Vol. 46 (2), 42–49.

Kumar, Nirmalya – Stern, Louis – Anderson, James (1993) Conducting interorganizational research using key informants. *Academy of Management Journal*, Vol. 36 (6), 1633–1651.

Kuratko, Donald F. – Ireland, Duane – Covin, Jeffrey G. – Hornsby, Jeffrey (2005) A model of middle-level managers' entrepreneurial behavior. *Entrepreneurship Theory & Practice*, Vol. 29 (6).

Kuuluvainen, Arto – Paavilainen, Eriikka (2009) Kansainvälistyminen ja kasvu. In: *Yrityskasvun mekanismit (Mechanisms of Firm Growth)*, eds. J. Heinonen – A. Kovalainen. Turku: Turku School of Economics, TSE Entre, CRE, Tutkimus- ja koulutuskeskus, Uniprint.

Kuuluvainen, Arto – Pukkinen, Tommi – Stenholm, Pekka – Brutton, Garry. (2009) *The Role of Acquisition and Reconfiguration of Resources: A Longitudinal Examination of Firm Growth*. Unpublished Research Paper.

Learned, Edmund – Christensen, Roland – Andrews, Kenneth – Guth, William (1965) *Business Policy - Text and Cases.* Irwin, Homewood, IL.

Lee, Jeho – Lee, Kyungmook – Rho, Sangkyu (2002) An Evolutionary Perspective on Strategic Group Emergence: A Genetic Algorithm-Based Model. *Strategic Management Journal*, Vol. 23 (8), 727–747.

Leonard-Barton, Dorothy (1995) *Wellsprings of knowledge. Building and sustaining the sources of innovation*. Harvard Business School Press, Boston, MA.

Levinthal, Daniel – March, James (1993) The Myopia of Learning. *Strategic Management Journal*, Vol. 14, 95–112.

Liao, Jianwen (2004) Entrepreneurial Growth: Predictors and Indicators. In: *Entrepreneurship. The Way Ahead*, ed. H. P. Welsch, 117–131. Routledge Taylor & Francis Group. New York and London.

Lim, Jeen-Su – Sharkey, Thomas W. – Kim, Ken I. (1991) An Empirical Test of an Export Adoption Model. *Management International Review*, Vol. 31 (1), 51–62.

Lincoln, Yvonna – Guba, Egon (1985) *Naturalistic inquiry*. Sage Publications, Beverly Hills, CA.

Lockett, Andy (2005). Edith Penrose's Legacy to the Resource-Based View. *Managerial and Decision Economics*, Vol. 26, 83–98.

Lu, Jane W. – Beamish, Paul W. (2001) The Internationalisation and Performance of SME's. *Strategic Management Journal*, Vol. 22, (6–7), 565–586.

Luo, Yadong (2000) Dynamic capabilities in international expansion. *Journal of World Business*, Vol. 35 (4), 355–378.

Luostarinen, Reijo – Welch, Lawrence (1990) *International Business Operations.* Kyriiri Oy, Helsinki.

Luostarinen, Reijo – Gabrielsson, Mika (2006) Globalization and Marketing Strategies of Born Globals in SMOPECs. *Thunderbird International Business Review*, Vol. 48 (6), 773–801.

Lydiksen, Rene Tristan (2009) *Dynamic Capabilities of International New Ventures; Toward a Theory*. Unpublished dissertation. University of Southern Denmark.

Macher, Jefferey T. – Mowery, David C. (2009) Measuring Dynamic Capabilities: Practices and Performance in Semiconductor Manufacturing. *British Journal of Management*, Vol. 20, 41–62.

Macpherson, Allan – Jones, Oswald – Zhang, Michael (2004) Evolution or revolution? Dynamic capabilities in a knowledge-dependent firm. *R&D Management*, Vol. 34 (2), 161–175.

Madhoc, Anoop – Osegowitsch, Thomas (2000) The international biotechnology industry: a dynamic capabilities perspective. *Journal of international business studies*, Vol. 31 (2), 325–336.

Madsen, Einar-Liar (2010) A Dynamic Capability Framework- Generic dimensions of Dynamic Capabilities and Their Relationship to Entrepreneurship. In: *Strategic Reconfigurations: Building Dynamic Capabilities in Rapid-Innovation-Based Industries*, eds. S. Wall – C. Zimmermann – R. Klingebiel – D. Lange. Chaltenham: Edward Elgar.

Madsen, Tage Koed – Servais, Per (1997) The internationalisation of born globals: An evolutionary process? *International Business Review*, Vol. 6, 561–583.

Mahoney, James – Goertz, Gary (2006) A tale of two cultures: Contrasting quantitative and qualitative research. *Political Analysis*, Vol. 14, 227–249.

Mainela, Tuija (2002) *Networks and social relationships in organizing international joint ventures. Analysis of the network dynamics of a Nordic-Polish joint venture*. Universitas Wasaensis, no. 103. Doctoral dissertation. Vaasa: University of Vaasa .

Makadok, Richard (2001) Toward a Synthesis of the Resource-Based View and Dynamic-Capability Views of Rent Creation. *Strategic Management Journal*, Vol. 22, 387–401.

March, James G. – Simon, Herbert A. (1958) *Organizations*. Wiley, New York.

McDougall, Patricia P. (1989) International versus domestic entrepreneurship: New venture strategic behavior and industry structure. *Journal of Business Venturing*, Vol. 4, 387–399.

McDougall, Patricia P. – Shane, Scott – Oviatt, Benjamin, M. (1994) Explaining the Formation of International New Ventures: The Limits of International Business Research. *Journal of Business Venturing*, Vol. 9, 469–487.

McDougall, Patricia P. – Oviatt, Benjamin M. (2000) International entrepreneurship: the intersection of two research paths. *Academy of Management Journal*, Vol. 43 (5), 902–906.

McGrath, Micheal E. (2001) *Product Strategy for High Technology Companies- Accelerating your business to web speed.* McGraw-Hill.

McKelvie, Alexander – Davidsson, Per (2006) From Resource Base to Dynamic Capabilities: An investigation of new firms. *Paper submitted to workshop on the practice of dynamic capabilities: Theory development and research.* Lancaster University Management School, UK.

McKelvie, Alexander – Davidsson, Per (2009) From Resource Base to Dynamic Capabilities: An Investigation of New Firms. *British Journal of Management*, Vol. 20 (1), S63–S80.

McKinnon, Jill (1988) Reliability and validity in field research: some strategies and tactics. *Accounting, Auditing and Accountability*, Vol. 1 (1), 34–54.

Melin, Leif (1992) Internationalisation as a Strategy Process. *Strategic Management Journal*, Vol. 13, 99–118.

Merriam, Sharan B. (1988) *Case study research in education: A qualitative approach*. Jossey-Bass Publishers, San Francisco.

Meyer, Klaus E. – Gelbuda, Modestas (2006) Process Perspectives on International Business Research in CEE. *Management International Review*, Vol. 46 (2), 143–164.

Meyer, Marc H. – Lehnerd, Alvin P. (1997) *The Power of Product Platforms- Building Value and Cost Leadership*. Free Press.

Miesenbock, Kurt J. (1988) Small Business and Exporting: A Literature Review. *International Small Business Journal*, Vol. 6 (2), 42–61.

Miles, Matthew B. (1983) Qualitative data as an attractive nuisance: the problem of analysis. In: *Qualitative Methodology*, ed. J. Van Maanen, 117–134. Beverly Hills: Sage Publications.

Miles, Matthew B. – Huberman, Michael A. (1994) *Qualitative data analysis*. Sage, Thousand Oaks, CA.

Miles, Raymond E. – Snow, Charles C. (1978) *Organizational strategy, structure, and process*. McGraw-Hill, New York.

Ministry of Trade and Industry (2006) *Pienten ja keskisuurten yritysten toimintaympäristö ja tulevaisuuden näkymät*. May–June 2006.

Mintzberg, Henry – McHugh, Alexandra (1985) Strategy formation in an adhocracy. *Administrative Science Quarterly*, Vol. 30 (2), 160–197.

Mishler, Elliot (1990) Validation in inquiry-guided research: the role of exemplars in narrative studies. *Harvard Educational Review*, Vol. 60 (4), 415–442.

Mitchell, Ronald K. – Smith, Brock –Seawright, Kristie – Morse, Eric (2000) Cross-cultural cognitions and venture creation decision. *Academy of Management Journal*, Vol. 43, 974–993.

Moliterno, Thomas – Wiersema, Margareth (2007) Firm Performance, Rent Appropriation, and the Strategic Resource Divestment Capability. *Strategic Management Journal*, Vol. 28, 1065–1087.

Moon, Junyean – Lee, Haksik (1990) On the Internal Correlates of Export Stage Development: An Empirical Investigation in the Korean Electronics Industry. *International Marketing Review*, Vol. 7 (5), 16–26.

Morrow, J. F. (1988) International entrepreneurship: A new growth opportunity. *New Management*, Vol. 3, 59–61.

Mullins, John W. – Forlani, David (2005) Missing the boat or sinking the boat: A study of new venture decision making. *Journal of Business Venturing*, Vol. 20 (1), 47–69.

Myers, Sumner – Marquis, Donald G (1969) *Successful Industrial Innovation*. National Scence Foundation**.**

Nahapiet, Janinen – Ghoshal, Sumantra (1998) Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, Vol. 23 (2), 242–266.

Nelson, Richard R. – Winter, Sidney G. (1982) *An Evolutionary Theory of Economic Change.* Belknap Press of Harvard University Press, Cambridge, MA.

Neuman, Lawrence W. (1988) *Social research methods*. Allyn and Bacon. Needham Heights.

Noordhaven, Niels G. (2004) Hermeneutic methodology and international business research. In: *Handbook of qualitative research methods for international business*, eds. R. Marschan-Piekkari – C. Welch, 84–104. Cheltenham: Edward Elgar Publishing.

Nummela, Niina – Puumalainen, Kaisu – Saarenketo, Sami (2004) A Global Mindset – A Prerequisite for Successful Internationalization? *Canadian Journal of Administrative Sciences*, Vol. 21 (1), 51–64.

Nummela, Niina – Saarenketo, Sami – Hätönen, Jussi –Ruokonen, Mika (2009) The Challenge of Accelerated International Growth: A Focus on Winners and Losers in the Finnish Software Sector. In: *Contemporary Challenges to International Business*, eds. K. Ibeh – S. Davies. Palgrave MacMillan.

Olsen, Morten J. S. (1992) *Kvalitet i Banktjänster: Privatkunders Upplevda Problem med Banktjänster—en Studie med Hjälp av Kritisk-Händelse-Metoden* [Quality in Retail Banking: Customers Perceived Problems with Bank Services—A Study Using Critical-Incident-Method]. Doctoral thesis. Karlstadt: University of Stockholm and Center for Service Research (CTF).

Orava, Markus (2005) *Internationalisation Strategies of Knowledge-intensive Professional Service Firms in the Life Sciences.* Dissertation. Turku: Turun kauppakorkeakoulun julkaisuja A–4.

Oviatt, Benjamin – McDougall, Patricia P. (1994) Toward a Theory of International New Ventures. *Journal of International Business Studies*, Vol. 25 (1), 45–64.

Oviatt, Benjamin – McDougall, Patricia P. (2003) Some fundamental issues in International Entrepreneurship. *Coleman White Paper Series*, *2*, 1–27. <http://www.usasbe.org>, retrieved January 2010.

Paavilainen-Mäntymäki, Eriikka (2009) *UNIQUE PATHS – The international Growth Process of Selected Finnish SMEs*. Dissertation. Turku: Turun kauppakorkeakoulun julkaisuja A–17/2009.

Paavilainen, Eriikka – Kuuluvainen, Arto (2008a) The International Growth Orientation of SME Managers and Entrepreneurs- a three-year follow-up study. In: *Proceedings of the RENT XXII – Research in Entrepreneurship and Small Business Conference*, Covilhã, Portugal, 20–21.11.2008

Paavilainen, Eriikka – Kuuluvainen, Arto (2008b) International growth of Finnish Small and medium-sized enterprises. *Paper presented at ICSB 2008 –conference*, Halifax, Canada, June 22–25. *Published in conference proceedings, CD-ROM.*

Patton, Michael Q. (1990) *Qualitative Evaluation and Research Methods*, Sage, Newbury Park, CA.

Peirce Charles, Sanders (1903) Pragmatism as the logic of abduction. *The essential Peirce: Selected philosophical writings*, Vol. 2, 226–242.

Peng, Mike (2001) The resource-based view and international business. *Journal of Management*, Vol. 6, 803–829.

Penrose, Edith T. (1959) *The theory of the Growth of the Firm*. Basil Blackwell, Oxford, Great Britain.

Perren, Lew – Ram, Monder (2004) Case-study method in small business and entrepreneurial research: mapping boundaries and perspectives. *International Small Business Journal*, Vol. 22 (1), 83–101.

Perry, Chad (1998) Processes of a case study methodology for postgraduate research in marketing. *European Journal of Marketing*, Vol 32 (9/10), 785–802.

Peter, J. Paul – Olson, Jerry (1983) Is science marketing? *Journal of Marketing*, Vol. 47 (2), 111–125.

Peteraf, Margaret A. (1993) The Cornerstones of Competitive Advantage: A Resource-Based View. *Strategic Management Journal*, Vol. 14 (3), 179–191.

Pett, Timothy L. – Wolf, James A. (2009) SME opportunity for growth or profit: what is the role of product and process improvement? *International Journal of Entrepreneurial Venturing*, Vol. 1 (1) 5–21.

Pettigrew, Andrew M. (1997) What is a Processual Analysis? *Scandinavian Journal of Management*, Vol. 13 (4), 337–348.

Pettigrew, Andrew M. (2002) The character and significance of strategy process research. *Strategic Management Journal*, Vol. 13, 5–16.

Pfeffer, Jeffrey – Salancik, Gerald (1978) *The External Control of Organizations: A Resource Dependence Perspective*. Harper and Row, New York, NY.

Piekkari, Rebecca – Welch, Catherine – Paavilainen, Eriikka (2009) The Case Study as Disciplinary Convention: Evidence From International Business Journals. *Organizational Research Methods*, Vol. 12 (3).

Pierce, Lamar – Boerner, Christopher – Teece, David J. (2002) Dynamic capabilities, competence and the behavioral theory of the firm. In: *The Economic of Choice, Change and Organization: Essays in Honor of Richard M Cyert*, eds. M. Augier – J. G March, 81–95. Edward Elger, Cheltenham, UK.

Preece, Stephen B. – Miles, Grant – Baetz, Mark C. (1999) Explaining the International Intensity and Global Diversity of Early-Stage Technology Based Firms. *Journal of Business Venturing*, Vol. 14 (3), 259–281.

Ragin, Charles C. (1987) *The comparative method. Moving beyond qualitative and quantitative strategies*. University of California Press, Berkeley, Los Angeles & London.

Ragin, Charles C. (1992) Introduction: Cases of ‘‘what is a case?’’ In: *What is a case? Exploring the foundations of social inquiry*, eds. C. C. Ragin – H. S. Becker, 1–17. Cambridge, UK: Cambridge University Press.

Ragin, Charles C. (1997) Turning the tables: How case-oriented research challenges variable-oriented research. *Comparative Social Research*, Vol. 16, 27–42.

Ramachandran, J. – Mukherji, Sourav – Sud, Mukesh (2006) Strategic entrepreneurship in a globalizing economy: evidence from emerging economies. *IIMB Management Review*, Vol. 28 (3), 291–302.

Rao, T. R. – Naidu, G. M. (1992) Are the Stages of Internationalisation Empirically Supportable? *Journal of Global Marketing*, Vol. 6 (1/2), 147–170.

Rautkylä, Ritva (1991) *Developing SME capabilities for the European market. A socio-ecological framework*. Helsinki: Helsinki School of Economics Working papers F-262.

Remenyi, Dan – Williams, Brian – Money, Arthur – Swartz, Ethne (1998) *Doing Research in Business and Management*. Sage Publications, London.

Ridder, Hans-Gerd – Hoon, Christina – McCandless, Alina (Forthcoming) *Microfoundations of Dynamic Capabilities: The relationship between dynamic capabilities, underlying processes and their drivers*. Unpublished manuscript, University of Hannover, Germany.

Rindova, Violina – Kotha, Suresh (2001) Continuous Morphing: Competing Through Dynamic Capabilities, Form, and Function. *Academy of Management Journal*, Vol. 44, 1263–1280.

Rindova, Violina – Taylor, Susan (2002) *Dynamic Capabilities as Macro and Micro Organizational Evolution*. Maryland: University of Maryland, Robert H. Smiths School of Business. Accessed: 20.9.2009.

Romano, Claudio A. (1990) Identifying factors which influence product innovation: a case study approach. *Journal of Management Studies*, Vol. 27 (1), 75–95.

Root, Franklin (1994) *Entry Strategies for International Markets.* 2nd edition. Lexinton Books, Lexington, Ma.

Roth, Kendall (1995) Managing international interdependence: CEO characteristics in a resource-based framework. *The Academy of Management Journal*, Vol. 38 (1), 200–231.

Rumelt, Richard P. (1984) Towards a Strategic Theory of the Firm. In: *Competitive Strategic Management*, ed. Robert Lamb, 556–570. Englewood Cliffs, NJ: Prentice-Hall.

Rumelt, Richard P. (1995) Inertia and Transformation. In: *Resource Based and Evolutionary Theories of the Entreprise*, ed. C. Montgomery, 101–132. Boston, MA: Kluwer Academic.

Ruzzier, Mitja – Hisrich, Robert – Antoncic, Bostjan (2006) SME internationalization research: past, present, and future. *Journal of Small Business and Enterprise Development*, Vol. 3 (4), 476–497.

Sapienza, Harry – Autio, Erkko – George, Gerard – Zahra, Shaker (2006) A Capabilities Perspective on the Effects of Early Internationalisationon Firm Survival and Growth. *Academy of Management Review*, Vol 31 (4), 914–933.

Sarasvathy, Saras D. – Venkataraman, Sankaran – Dew, Nick – Velamuri, Rama (2003) Three views of Entrepreneurial Opportunities. In: *Handbook of Entrepreneurship Research*, eds. Z. Acs – D. Audretsch, 141–160. Kluwer: Dordrecht, NL.

Schreyögg, Georg – Kliesch-Eberl, Martina (2007) How dynamic can organizational capabilities be? Towards a dual-process model of capability dynamization. *Strategic Management Journal*, Vol. 28, 913–933.

Schumpeter, Joseph A. (1934) *The Theory of Economic Development. An inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Harvard University Press, Cambridge. Translated from the German by Redvers, Opie.

Schumpeter, Joseph A. (1949) Economic theory and entrepreneurial history. Prepared by the Harvard University Research Center in Entrepreneurial History. *Change and the Entrepreneur*, 63–84. Harvard University Press, Boston.

Schwandt, Thomas A. (2001) *Dictionary of Qualitative Inquiry*. Sage, London.

Scott, Mell – Bruce, Richard (1987) Five stages of growth in small business. *Long Range Planning*, Vol. 20 (3), 45–52.

Shane, Scott – Venkataraman, Sankaran (2000) The Promise of Entrepreneurship as a Field of Reseach. *Academy of Management Review*, Vol. 25 (1), 217–226.

Shank, Gary (2002*) Qualitative Research. A Personal Skills Approach.* Merrill Prentice Hall, Upper Saddle River, NJ.

Shaw, Eleanor (1998) Social networks: their impact on the innovative behaviour of small service firms. *International Journal of Innovation Management*, Vol. 2 (2), 201–222.

Shaw, Eleanor (1999) A guide to the qualitative research process: evidence from a small firm study. *Qualitative Market Research: An International Journal*, Vol. 2 (2), 59–70.

Shoham, Aviv (1998) Export Performance: A Conceptualisation and Empirical Assesment. *Journal of International Marketing*, Vol. 6 (3), 59–61.

Short, Jeremy C. – Ketchen, David J. – Shook, Christopher L. – Ireland, Duane R. (2010) The Concept of "Opportunity" in Entrepreneurship Research: Past Accomplishments and Future Challenges. *Journal of Management*, Vol. 36 (1), 40–65.

Silverman, David (2003) *Interpreting Qualitative Data.* 2nd edition. Saga Publiciations, London, UK.

Sirmon, David G. – Hitt, Michael A. – Ireland, Duane R. (2007) Managing firm resources in dynamic environments to create value: Looking *inside the* black box. *Academy of Management Review*, Vol. 32, 273–292.

Smallbone, David – North, David – Leigh, Robert (1993) The growth and survival of mature manufacturing SMEs in the 1980s: an urban and rural comparisons. In: *Small firms in urban and rural locations*, eds. J. Curran – D. Storey, 79–131. Routledge, London.

Somaya, Deepak – Teece, David J. (2007) Patents, licensing and entrepreneurship: effectuating innovation in multi-invention contexts. In: *Entrepreneurship, Innovation and the Growth Mechanism of the Free-Market Enterprise*, eds. E. Sheshinski – R. J. Strom – W. J. Baumol, 185–212. Princeton NJ: Princeton University Press.

Sørensen, Jesper B. – Stuart, Toby E. (2000) Aging, obsolescence and organizational innovation. *Administrative Science Quarterly*, Vol. 45, 81–112.

Sparrow, Paul – Brewster, Chris – Hillary, Harris (2004) *Globalising Human Resource Management*. Routledge, London and New York

Stake, Robert E. (1995) *The Art of Case Study Research*. Sage, Thousand Oaks, CA.

Stake, Robert E (2000) Case studies. In: *Handbook of qualitative research*, eds. N. Denzin – Y. Lincoln, 435–454. London: Sage.

Statistics Finland (2005) *Structure Statistics*.

Statistics Finland (2011) *Concepts and Definitions*. <http://www.stat.fi/meta/kas/lvaihto_en.html>, retrieved 07.06.2011.

Steensma, Kevin – Marino, Louis – Weaver, Mark – Dickson, Pat (2000) The influence of national culture in the formation of technology alliances by entrepreneurial firms. *Academy of Management Journal*, Vol. 43, 951–973.

Stevenson, Howard H. – Jarillo, Carlos J. (1990) A Paradigm of Entrepreneurship: entrepreneurial management. *Strategic Management Journal*, Vol. 11 (7), 17–27.

Stopford, John M. – Wells, Louis T. (1972) *Managing the Multinational Enterprise*. Basic, New York.

Storey, David (1994) *Understanding the small business sector*. Routledge, London.

Sullivan, Daniel – Bauerschmidt, Allan (1990) Incremental Internationalisation: A test of Johanson and Vahlne's thesis. *Management International Review*, Vol. 30 (1), 19–30.

Teece, David J. (1982) Towards an Economic Theory of the Multiproduct Firm. *Journal of Economic Behavior and Organization*, Vol. 3, 39–63.

Teece, David J. (2000) *Managing Intellectual Capital: organizational, strategic, and policy dimensions*. Oxford University Press, Oxford.

Teece, David J. (2007) Explicating Dynamic Capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, Vol. 28, 1319–1350.

Teece, David J. (2009) *Dynamic Capabilities and Strategic Management: Organizing for Innovation and Growth.* Oxford University Press, New York.

Teece, David J. – Pierce, Lamar J. – Boerner, Christopher S. (2002) Dynamic capabilities, competence, and the behavioural theory of the firm. In: *The Economics of Change, Choice and Structure: Essays in the Memory of Richard M. Cyert*, eds. M. Augier – J. G. March. Cheltenham: Edward Elgar.

Teece, David J. – Pisano, Gary (1994) The Dynamic Capabilities of Firms: An Introduction. *Industrial and Corporate Change*, Vol. 3 (3), 537–556.

Teece, David J. – Pisano, Gary – Shuen, Amy (1997) Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, Vol. 18 (7), 509–533.

The Confederation of Finnish Industries EK (2008) *SMEs influence on the national economy and the EU*. Retrieved 10.2.2010 (in Finnish).

Thompson, James D. (1967) *Organizations in action*. McGraw-Hill, New York.

Tiessen, James H. – Merrilees Bill (1999) An Entrepreneurial Model of SME Internationalisation. Evidence from Six Cases. In: *International Entrepreneurship: Globalization of Emerging Businesses*, eds. Alan M. Rugman – Richard W. Wright, 131–154. Greenwich, Connecticut: JAI Press Inc.

Tsoukas, Haridimos (1989) The validity of idiographic research explanations. *Academy of Management Review*, Vol. 14(4), 551–61.

Töttö, Pertti (2000) *Pirullisen positivismin paluu: Laadullisen ja määrällisen tarkastelua*. Vastapaino, Tampere.

Turnbull, Peter W. (1987) A Challenge to the Stages Theory of the Internationalisation Process. In: *Managing Export Entry and Expansion. Concepts and Practice*, eds. Philip J. Rosson – Stanley D. Reid, 21–40. New York: Praeger Publishers.

Turnbull, Peter W. – Valla, Jean-Paul (1986) The Interaction Approach to Marketing Strategy – An Introduction. In: *Strategies for International Industrial Marketing*, eds. P. W. Turnbull – J. P. Valla. Croom Helm, UK.

Turunen, Helena (2009) *The internationalisation of location-bound service SMEs- Resources and Networks in Finnish Tourism Companies*. Dissertation. Turku: Turun kauppakorkeakoulun julkaisuja A–12/ 2009.

Tushman, Michael L. – Anderson, Philip (1986) Technological discontinuities and organizational environments. *Administrative Science Quarterly*, Vol. 31, 439–465.

Van de Ven, Andrew H. (1992) Suggestions for studying strategy process research. *Strategic Management Journal*, Vol. 13 (Summer Special Issue), 169–191.

Van de Ven, Andrew – Angle, Harold L. – Poole, Marshall S. (1989) *Research on the Management of Innovation: The Minnesota Studies*. Harper & Row, New York.

Van de Ven, Andrew – Huber, George (1990) Longitudinal field research methods for studying processes of organizational change. *Organization Science*, Vol. 1 (3), 213–219.

Vanderbyl, Sandra – Kobelak, Sherry (2007) Critical success factors for the biotechnology industry in Canada. *Journal of Commercial Biotechnology*, Vol 13, 68–77.

Venkataraman, Sankaran (1997) The distinctive domain of entrepreneurship research. In: *Advances in Entrepreneurship, Firm Emergence and Growth*, ed. J.A Katz, Vol. 3, 119–138. Greenwich CT: JAI Press.

Venkataraman, Sankaran, – Sarasvathy, Saras D. (2001) Strategy and Entrepreneurship: Outlines of an untold Story. In: *Handbook of Strategic Management*, eds. Michael Hitt – Edward Freeman – Jeffrey Harrison, 650–668. Blackwell Publishers.

Ventresca, Marc J. – Mohr John W. (2002) Archival Research Methods. In: *The Blackwell Companion to Organizations*, ed. Joel A. C. Baum. Blackwell.

Verhees, Frans J. H. M. – Meulenberg, Matthew T. G. (2004) Market orientation, innovativeness, product innovation and performance in small firms. *Journal of Small Business Management*, Vol. 2 (2), 134–154.

Vernon, Raymond (1966) International investment and international trade in the product cycle. *Quarterly Journal of Economics*, Vol. 80 (2), 190–207.

Verona, Gianmario – Ravasi, Davide (2003) Unbundling dynamic capabilities: an exploratory study of continuous product innovation. *Industrial and Corporate Change*, Vol. 12 (3), 577–606.

Voima, Päivi (2000) *Critical incidents in internal relationships*. Swedish School of Economics and Business Administration, Working Papers, 420.

Walker, Richard M. (2005) Innovation and organizational performance: a critical review of the evidence and a research agenda. *Academy of Management Best Paper Proceedings*, PNP, B1–B6.

Wang, Catherine L. – Ahmed, Pervaiz K. (2007) Dynamic Capabilities: A Review and Research Agenda. *International Journal of Management Reviews*, Vol. 9 (1), 31–51.

Weerawardena, Jay – Sullivan Mort, Gillian – Liesch, Peter W. – Knight, Gary (2007) Conceptualising Accelerated Internationalization in the Born Global Firm: A Dynamic Capabilities Perspective. *Journal of World Business*, Vol. 42 (3), 294–306.

Welch, Lawrence – Luostarinen, Reijo (1988) Internationalization: Evolution of a concept. *Journal of General Management*, Vol. 17 (3), 333–334.

Wernerfelt, Birger (1984) The Resource-Based View of the Firm. *Strategic Management Journal*, Vol. 5 (2), 171–180.

Westhead, Paul – Ucbasaran, Deniz – Binks, Martin (2004) Internationalization strategies selected by established rural and urban SMEs. *Journal of Small Business and Enterprise Development*, Vol. 11, 8–22.

Wiklund, Johan – Patzelt, Holger – Shepherd, Dean A. (2009) Building an integrative model of small business growth. *Small Business Economics*, Vol 32, 351–374.

Williamsson, Oliver E. (1975) *Markets and Hierarchies: Analysis and Antitrust Implications*. Free Press, New York.

Williamsson, Oliver E. (1985) *The Economic Institutions of Capitalism*. Free Press, New York.

Williamson, Oliver E. (1999) Strategy research: Governance and competence perspectives. *Strategic Management Journal*, Vol. 20, 1087–1108.

Winter, Sidney G. (2003) Understanding Dynamic Capabilities. *Strategic Management Journal*, Vol. 24 (10), 991–995.

Wortzel, Lawrence H. – Wortzel, Heidi V. (1981) Export Marketing Strategies for NIC and LDC Based firms. *Columbia Journal of World Business*, Spring, 51–60.

Yin, Robert K. (1989/1991/1994/2002/2003*) Case Study Research, Design and Methods.* Sage, Thousand Oaks, CA.

Zacharakis, Andrew L. (1997) Entrepreneurial entry into foreign markets: A transaction cost perspective. *Entrepreneurship Theory and Practice*, Vol. 21, 23–39.

Zahra, Shaker (2005) A theory of international new ventures: A decade of research. *Journal of International Business Studies*. Vol. 36, 20–28.

Zahra, Shaker – Dess, Gregory G. (2001) Entrepreneurship as a field of research: encouraging dialogue and debate. *Academy of Management Review*, Vol, 26 (8–10).

Zahra, Shaker – Garvis, Dennis (2000) International corporate entrepreneurship and firm performance: the moderating effect of international environmental hostility. *Journal of Business Venturing*, Vol.15 (5), 469–492.

Zahra, Shaker – George, Gerard (2002) Absorptive Capacity: A Review, Reconceptualization and Extension. *Academy of Management Review*, Vol. 27 (2), 213–240.

Zahra, Shaker. – Ireland, Duane – Hitt, Michael A. (2000) International Expansion by New Venture Firms: International Diversity, Mode of Market Entry, Technological Learning and Performance. *Academy of Management Journal*, Vol. 43 (5), 925–950.

Zahra, Shaker – Neubaum, Donald O. – Huse, Morten (1997) The Effect of the Environment on Export Performance Among Telecommunications New Ventures. *Entrepreneurship Theory and Practice*, Vol. 22 (1), 25–46.

Zahra, Shaker – Nielsen, Anders (2002) Sources of capabilities, integration and technology commercialization. *Strategic Management Journal*, Vol. 23 (5), 377–398.

Zahra, Shaker – Sapienza, Harry J. – Davidsson, Per (2006) Entrepreneurship and Dynamic Capabilities: a Review, Model and Research Agenda. *Journal of Management Studies*, Vol. 43 (4), June, 917–955.

Zollo, Maurizio – Winter, Sidney G. (2002) Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization Science*, Vol. 13, 339–351.

Zott, Christoph (2003) Dynamic capabilities and the emergence of intraindustry differential firm performance: Insights from a simulation study. *Strategic Management Journal*, Vol. 24, 97–125.

Zucchella, Antonella – Scabini, Paolo (2007) *International Entrepreneurship-Theoretical Foundations and Practices*. Palgrave.

Zucchella, Antonella – Palamara, G. – Denicolai, S. (2007) The drivers of the early internationalization of the firm. *Journal of World Business*, Vol. 42, 268–280.

DATA SOURCES

List of interviews:

Information Technology Oy, CEO, 2004 (structured telephone interview)
Information Technology Oy, CEO, spring 2007 (structured telephone interview)
Information Technology Oy, Director of personnel, January 23, 2008 (personal interview)
Information Technology Oy, (Former) director of personnel, September 27th, 2010 (by telephone)
Information Technology Oy, (Former) Vice president, September 13th, 2010 (by e-mail)

Aluminum Oy, Financial and Administrative director, 2004 (structured telephone interview)
Aluminum Oy, Financial and Administrative director, spring 2007 (structured telephone interview)
Aluminum Oy, Financial and administrative director, May 5, 2008 (personal interview)
Aluminum Oy, Production director, September 9th, 2010 (by e-mail)
Aluminum Oy, Deputy managing director, October 18th, 2010 (by telephone)
Aluminum Oy, Member of the board, November 13th, 2010 (personal interview)

Findows Oy, CEO, 2004 (structured telephone interview)
Findows Oy, Sales director, spring 2007 (structured telephone interview)
Findows Oy, Sales director, March 26, 2008 (personal interview)
Findows Oy, Current CEO, September 9, 2010 (by e-mail)
Findows Oy, Former CEO, Chairman of the Board, October 4, 2010 (telephone interview)

Forestry Oy, Entrepreneur/ One of the founders, 2004, (structured telephone interview)
Forestry Oy, Purchasing manager, spring 2007 (structured telephone interview)
Forestry Oy, Sales director, May 5, 2008 (personal interview)
Forestry Oy, CEO, October 21, 2010 (personal interview)

Secondary research data (not listed due to the need to keep the firm names confidential):

Brochures
Chydenius magazine, 2005, 1 article
Digitoday.fi webmagazine, 2005–2010, 2 articles
Etelän Uutiset newspaper, 2002, 1 article
Fennia Magazine, 2007, 1 article
Financial Statements of studied firms, 2000–2009
Forest Machine Journal, 2007, 1 article
Forestry Journal, 2010, 1 article
History of Aluminum Oy
Kaleva newspaper, 2010, 1 article
Kauppalehti newspaper, 2009–2010, 4 articles
Light Reading, 2005, 1 article
Loimaan lehti newspaper, 2009, 1 article
Metallitekniikka, 2003–2007, 2 articles
Metsätrans magazine, 2007, 1 article
Oulun Eteläisen Puuviesti magazine, 2007, 1 article
Press releases
Projektiuutiset.fi webmagazine, 2010, 1 article
Publications of studied firms
Talouselämä journal, 2000–2006, 4 articles
Tekniikka ja Talous journal, 2000–2006, 5 articles
Tietoviikko newspaper, 2003, 1 article
Vancouver Sun newspaper, 2008, 1 article
Vasek Forum magazine, 2005, 1 article
Visio magazine, 2008, 1 article
Web pages of studied firms

Research reports including case firm information:
The Finnish Funding Agency for Technology and Innovation (Tekes)
The Finnish Innovation Fund (Sitra)
The web pages of industry organizations, trade unions and research centres:
Association of Finnish Work
Employment and Economic Development Centre
The Confederation of Finnish Industries EK
The Conferederation of Finnish Construction Industries RT
The Federation of Finnish Enterprises
The Finnish Funding Agency for Technology and Innovation Tekes

TURUN KAUPPAKORKEAKOULUN JULKAISUSARJASSA A OVAT VUODESTA 2010 LÄHTIEN ILMESTYNEET SEURAAVAT JULKAISUT

A-1:2010 Pikka-Maaria Laine
Toimijuus strategiakäytännöissä: Diskurssi- ja käytäntöteoreettisia avauksia

A-2:2010 Juha V. Virtanen
Johtajana sairaalassa. Johtajan toimintakenttä julkisessa erikoissairaalassa keskijohtoon ja ylimpään johtoon kuuluvien lääkäri- ja hoitajataustaisten johtajien näkökulmasta

A-3:2010 Markus Vinnari
The past, present and future of eating meat in Finland

A-4:2010 Arja Lemmetyinen
The coordination of cooperation in tourism business networks

A-5:2010 Antti Fredriksson
Soft and hard information in bank-firm relationships - The effect of relationship intensity and reporting conservatism on loan pricing and relationship value

A-6:2010 Tomi Kortela
The intertemporal choice of households under incomplete markets in general equilibrium

A-7:2010 Hongxiu Li
E-service continuance: an insight into online travel services in China

A-8:2010 Harri Virolainen
"Kai sitä ihminen on vaan semmoinen laumaeläin" – Virtuaalisen tiimin ilmapiiri

A-1:2011 Marjo Kumpula
Vakuutusalan työn sisältö ja työntekijöiden ammatti-identiteetin muovautuvuus – Vakuutusvirkailijasta finanssialan myyjäksi?

A-2:2011 Helena Keinänen
Algorithms for coalitional games

A-3:2011 Matti Mäntymäki
Continuous use and purchasing behaviour in social virtual worlds

A-4:2011 Arto Kuuluvainen
Dynamic capabilities in the international growth of small and medium-sized firms

Kaikkia edellä mainittuja sekä muita Turun kauppakorkeakoulun julkaisusarjoissa ilmestyneitä julkaisuja voi tilata osoitteella:

KY-Dealing Oy
Rehtorinpellonkatu 3
20500 Turku
Puh. (02) 333 9422
E-mail: ky-dealing@tse.fi

All the publications can be ordered from

KY-Dealing Oy
Rehtorinpellonkatu 3
20500 Turku, Finland
Phone +358-2-333 9422
E-mail: ky-dealing@tse.fi

Turun kauppakorkeakoulu
Turku School of Economics

ISBN 978-952-249-175-9