

# From Resources to Results

The Road to International Performance for Norwegian SMEs

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# **MASTERKONTRAKT**

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Oppgavetekst/Problembeskrivelse International trade is continuously increasing and Norwegia take advantage of opportunities in the international market internationalization process and international performance	place. The purpose of this thesis is to investigate the
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**Student:** Jeg erklærer herved at jeg har satt meg inn i gjeldende bestemmelser for mastergradsstudiet og at jeg oppfyller kravene for adgang til å påbegynne oppgaven, herunder eventuelle praksiskrav.

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## **Abstract**

The international performance of small and mediums sized enterprises is becoming increasingly important. With growing international trade and more small and medium sized enterprises joining the world trade, the international performance of these firms has considerable impact on the development of the world economy. Still, their resource shortage complicates the internationalisation process, making it hard to succeed abroad. Accordingly, what is vital for managers of small and medium sized enterprises is to identify the internal firm factors leading to enhanced international performance, as these are the factors managers can directly control and affect. Thus, this study contributes to research on the salient topic of international performance of small and medium sized firms by investigating what internal factors ensure high international performance for small and medium sized enterprises?

A quantitative and deductive research strategy was applied to address the research question by conducting statistical analyses of survey data on a sample of 280 Norwegian small and medium sized firms with international activities. The resource-based view was used as a starting point to identify internal factors determining performance, and insights from various theoretical perspectives were used to further understand their relation to international performance. Factor analyses and multiple regression were utilised to operationalize and test theoretically developed hypotheses on the relations between internal firm resources and international performance. Three performance dimensions were incorporated leading to three regression models.

The analysis shows that different resources are needed to ensure high performance for the various performance dimensions of the study, leading to a threefold answer to the research question. Small and medium sized firms seeking high Market establishment performance should focus on acquiring international vision, international commitment, intermediary competencies and market communication whereas Market position performance can be improved by obtaining international vision, international commitment, cooperation orientation, market communication and value chain coordination. International revenue growth performance is found to be related to firms having strong financial sufficiency, international vision and market communication.

These results provide implications at the firm level for theory and managers of international small and medium sized firms. Two resources influence all performance dimensions, international vision and market communication, and are sources of competitive advantage due to their intangibility and unique characteristics. Apart from these, the individual performance goal of the firms determine the resources required to ensure high performance, implying that small and medium sized firms must adapt their resource base to changing firm objectives. Some resources, although being proposed by theory to enhance performance, are found to have negative or no influence on international performance. Managers need to be aware of their potentially deteriorating effects, and theory should further investigate their unexpected effect. Risk is also found to influence international financial performance and should be taken into account in performance studies to prevent risky ventures biasing results and recommendations.

# Sammendrag

Den internasjonale suksessen til små og mellomstore bedrifter blir stadig viktigere. Økende internasjonal handel og større deltakelse av små og mellomstore bedrifter i verdenshandelen gjør at de internasjonale resultatene til disse bedriftene har betydelig innvirkning på verdensøkonomien. Ressursknappheten deres kompliserer derimot internasjonaliseringen og gjør det utfordrende å lykkes i utlandet. Det er derfor avgjørende for ledere av disse bedriftene å få kjennskap til hvilke interne faktorer i bedriften som kan bidra til gode resultater, da det er de interne faktorene ledere direkte kan kontrollere og utvikle. Denne masteroppgaven bidrar til forskning på den internasjonale suksessen til små og mellomstore bedrifter ved å undersøke hvilke interne faktorer som sikrer gode internasjonale resultater for små og mellomstore bedrifter.

For å besvare forskningsspørsmålet ble en kvantitativ og deduktiv forskningsstrategi brukt der statistiske analyser ble gjennomført på et utvalg bestående av 280 norske små og mellomstore bedrifter som opererer internasjonalt. Ressursbasert teori ble brukt som utgangspunkt for å identifisere interne faktorer, eller bedriftsressurser, med potensiell påvirkning på bedrifters internasjonale suksess. Innsikt fra andre teoretiske perspektiver ble inkludert for å oppnå ytterligere kunnskap om forholdet mellom ressurser og suksess, og for å etablere hypoteser på disse relasjonene. Faktoranalyse og multippel regresjon ble brukt for å operasjonalisere og undersøke de teoretiske hypotesene. Ettersom tre prestasjonsmål ble brukt i analysen, ble tre regresjoner gjennomført

Analysen viser at ulike ressurser er nødvendig for å sikre gode resultater for de forskjellige prestasjonsmålene. Dette gir et tredelt svar på forskningsspørsmålet. Mens små og mellomstore bedrifter som satser på Markedsetableringssuksess bør fokusere på å skaffe seg ressursene *internasjonal visjon*, *internasjonal forpliktelse*, *mellomleddskompetanse* og *markedskommunikasjon*, kan Markedsposisjonssuksess oppnås ved å investere i *internasjonal visjon*, *internasjonal forpliktelse*, *samarbeidsfokus*, *markedskommunikasjon* og *verdikjedekoordinering*. Når det gjelder Internasjonal inntekstvekst, kan *finansielle midler*, *internasjonal visjon* og *markedskommunikasjon* bidra til gode resultater.

Disse resultatene gir viktige implikasjoner på bedriftsnivå for teori og for ledere av internasjonale små og mellomstore bedrifter. De to ressursene internasjonal visjon og markedskommunikasjon bidrar positivt til alle prestasjonsmålene, konkurransefortrinn på grunn av sine unike egenskaper. Videre må bedrifters ressursbase tilpasses ulike og skiftende prestasjonsmål. Selv om de fleste ressursene påvirker bedrifters internasjonale suksess positivt, viser noen seg å ha negativ eller ingen innflytelse. Sett i lys av teori er dette uventet og forskere bør derfor undersøke dette funnet videre. Samtidig må ledere av små og mellomstore bedrifter være oppmerksomme på ressursenes potensielt uønskede effekter. Studien viser også at risiko påvirker finansielle resultater signifikant, og bør derfor inkluderes i videre forskning på den internasjonal suksessen til små og mellomstore bedrifter for å unngå at anbefalinger til bedriftsledere blir sterkt påvirket av høyrisikoaktiviteter.

# **Preface**

This thesis is written in the spring of 2013 as the final part of our M.Sc. degree in Industrial Economics and Technology Management at NTNU in Trondheim, Norway. The master thesis is the completion of the specialisation within Strategy and International Business Development, and the purpose of the study is to investigate the road to international performance for international small and medium sized enterprises.

We would like to express our gratitude to our academic supervisor, Professor Arild Aspelund, for his appreciated guidance and support throughout the thesis work. Additionally, we would like to thank Professor Tage Koed Madsen for sharing his thoughts on performance studies, Associate Professor Mette Langaas for valuable input with the statistical work, Ph.D. candidate Øyvind Bjørgum for providing information about the empirical data and Ph.D. candidate Ann Elida Eide for her constructive feedback.

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# Chapter 1 | INTRODUCTION

Being at the heart of strategic management, performance is a topic of the utmost importance and the cornerstone of firm survival (Hult et al., 2005). With the increase in internationalisation in today's business world, the *international* performance of firms is gaining more attention (Chen & Tan, 2012). The Organisation for Economic cooperation and development, OECD, (2009a) underlines the importance of international performance by emphasising the positive effects of international trade such as increased prosperity and economic growth. Thus, the continuation of economic development depends on the international performance of firms.

In addition to its positive effects for global development, international trade is also seen as a way to improve performance for the individual firms (Katsikeas et al., 2000). Through internationalisation firms can exploit opportunities abroad, achieve economies of scale and boost financial results (Sousa, 2004). Whereas some firms are actively seeking international markets, others are forced to internationalise due to limited home markets and increased competition domestically (Knight & Kim, 2009). This results in an increasing number of firms operating in the international market place.

Small and medium sized enterprises, SMEs, have lately become critical players in the world trade, terminating the traditional dominance of large multinational enterprises in the international market place (Knight, 2000). Current estimates suggest that about a third of the value of international trade is undertaken by SMEs and the share is increasing (OECD, 2005). About 99 % of the firms in most developed countries are classified as SMEs (OECD, 2010), and they have recently been characterised as the backbone of the European economy (Ecorys, 2012). With their increasing internationalisation, the international success of SMEs is crucial to ensure global economic growth.

## 1.1 Research question

Although firms are internationalising at an increasing rate, international business is seen as more challenging than domestic operations. The host and home markets may differ along cultural, administrative, geographic and economic dimensions, requiring firms to change and adapt many of the ways they do business (Ghemawat, 2011, p. 55). International firms also see heightened political and operational risks in their ventures (McDougall & Oviatt, 1996). These uncertainties make it more difficult to operate and succeed in international markets.

Additionally, Lu and Beamish (2006) call for increased attention of SMEs in performance research, as they despite their increasing importance are still underexplored in the literature. A lot of research on international performance has focused on large multinational enterprises making the results less applicable for smaller firms. Compared to larger companies, SMEs have fewer resources and weaker safety net, causing the internationalisation to be more complex and risky (Zahra et al., 2000; Knight & Kim, 2009). Moreover, international SMEs are by no means a homogenous group, and have diverging objectives for their

internationalisation (Nummela et al., 2005). This calls for separate studies investigating how high international performance can be ensured for SMEs.

Regarding determinants of performance, previous research and theory have examined factors both external and internal to the firm (Zou & Stan, 1998). However, we contend that for managers of SMEs, what really matters is to identify the *internal* factors of the firm contributing to enhanced international performance, as these are the factors managers can control and develop directly. Thus, in order to provide value for the increasingly more important group of international SMEs, this study will investigate what internal factors affect the international performance of SMEs. Consequently, the research question of the study reads:

What internal factors ensure increased international performance of small and medium sized enterprises?

#### 1.2 Positioning and contribution

Several theoretical fields investigate firm performance. This study is positioned within the international marketing field, and more specifically in the intersection between international ventures, performance and SMEs, as illustrated in figure 1.

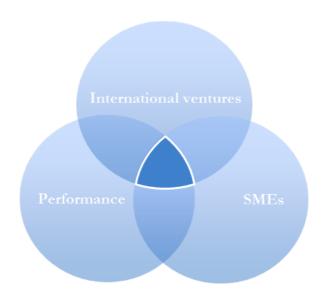


Figure 1: The positioning of the study

The study will contribute to the understanding of international SME performance by investigating the international performance of Norwegian SMEs. Firstly, the study contributes to theory by filling the research gap identified by Lu and Beamish (2006) on SME performance. Empirical testing of existing performance propositions posed by theory will provide a deeper understanding of what leads to high international performance for SMEs. Additionally, including insights from different theoretical perspectives allow for assessment of the practical ability of the perspectives to explain international performance.

Further, unlike several performance studies looking at direct exporting firms only (Sousa, 2004), this study includes SMEs with all types of international ventures in the investigation. Theory is thereby expanded by including operations ranging from direct exports to the more extensive foreign direct investments, contributing to a more comprehensive picture of international SMEs.

The study also contributes to expand international marketing theory by including key insights on performance from finance theory. In finance theory, performance is rarely considered without accounting for risk, but SME performance studies in international marketing are often found to leave this dimension out (Watson & Robinson, 2002). We argue that risk is highly relevant for studies assessing financial performance within the international marketing field as well, and will therefore incorporate risk in this study.

For managers of SMEs, the study provides advice assisting in the challenging endeavour of internationalisation, and thereby contributes to reduce the uncertainties related to SME internationalisation. As noted by Madsen (1989), the rationale behind conducting performance studies is to establish guidelines for successful business. Hence, this study will identify the internal factors that managers who are constrained by time, resources and experience should focus on in order to ensure high performance, and how these factors can be obtained.

#### 1.3 Definition of terms

Three terms used in this study need to be defined to ensure a clear comprehension of the results, hence a nomenclature is provided in table 1.

Table 1: Nomenclature

Nomenclature	
International venture	All international business activities undertaken by a firm
SME (Small and medium sized enterprise)	A firm with less than 250 employees*
International performance	The degree to which an SME reach the goals it has for its international venture

<sup>\*</sup> In accordance with the definition applied by the European Commission (Ecorys, 2012)

#### 1.4 Structure

The study is structured to best answer the research question and follows the sequence of a traditional research report.

The study begins by presenting key theoretical concepts on international performance and establishing hypotheses on the determinants of international performance for SMEs, forming a conceptual model. This is followed by a presentation and assessment of the quantitative methodology of the study including the statistical analyses using multiple regression. Thereafter, the empirical results from the data analysis are outlined, before the research question and the findings are discussed. Implications for theory and managers are elaborated on before limitations of the study and suggestions for further research are presented. Finally, a conclusion of the findings in relation to the research question is presented.

# Chapter 2 | THEORY

The starting point in the investigation of the research question is to look at existing theory and research on international firm performance. Thus, this chapter will look at what factors have previously been highlighted as performance enhancing. Firstly, the importance of international performance will be elaborated on, before various performance dimensions are discussed. Thereafter, current theory on determinants of performance will be investigated leading to the development of hypotheses and a conceptual performance model of this study.

## 2.1 Importance of international performance

Performance is a recurrent theme in management studies and has received great interest among business managers and researchers over the last three decades (Chen & Tan, 2012). As Porter (1991) describes it, the reason why firms succeed and fail is the most central question in strategy.

Lately, studies examining the international performance of firms have been occupying research journals, reflecting the increased focus on internationalisation in today's business (e.g. Katsikeas et al., 2000; Sousa, 2004; Zhou et al., 2009; Knight & Kim, 2009; Chen & Tan, 2012). The literature emphasises the importance of international performance in a macro as well as a micro perspective. From a macro perspective, the significance of international firm performance is seen in the status of export as the "engine of economic growth" (Zou et al., 1998, p. 37). Current economic, political and technological trends have simplified internationalisation, leading to a boost in international trade over the past few decades (Zakaria, 2008, p. 21-25). Decreasing trade barriers also cause national economies to become even more integrated (Knight & Kim, 2009). The increased international trade creates positive and progressive effects worldwide, through contributing to increased productivity, greater availability of goods and job creation in the world economy (Czinkota, 1994; Katsikeas et al., 2000). Indirect effects of successful international trade should also be taken into account when assessing the benefits of international trade, such as the spread of technology, knowledge and experience (OECD, 2009a). Overall, from a macro perspective, the development of the world economy is dependent on the success of international firms (Ghemawat, 2011, p. 252).

From a micro perspective, the individual firms are dependent on performing well in order to survive (Venkatraman & Ramanujam, 1986). To sustain and improve performance, more firms are continuously joining the international market place in order to exploit the opportunities arising abroad. Internationalisation is seen as a way to boost financial results (Katsikeas et al., 2000), achieve economies of scale and scope (Madsen & Servais, 1997; Lu & Beamish, 2001) and simply survive in an increasingly more complex business world (Smallbone et al., 1995). The new realities of firms today are clearly disclosed in the works of Knight and Kim (2009, p. 271) stating that, "internationalisation is no longer optional for most firms today". As the domestic markets are simultaneously becoming more competitive, the importance of international performance of firms is increasing (ibid).

#### 2.2 Performance dimensions

Performance is a broad term that is defined in a variety of ways by theory, and the measurements used to assess it are even more diverse (Cavusgil & Zou, 1994; Madsen, 1998; Knight & Kim, 2009). In the following, various measures of performance will be assessed.

#### 2.2.1 Alternative performance dimensions

Sousa (2004) states that there are two main types of performance dimensions, that is, objective and subjective dimensions. Traditionally, objective performance dimensions have been extensively applied in performance studies (Cavusgil & Zou, 1994; Jennings & Seaman, 1994). These dimensions are still widely used and typically measure financial figures such as revenues, profits, sales or various kinds of accounting ratios and growth measures (Zou et al., 1998; Sousa, 2004). Longer-term financial performance measures are also extensively applied, reporting the same financial figure over time, and are often preferred when available (Sousa, 2004). This permits the researcher to look at the evolution of the performance dimension over time, opening for spotting trends, and also allows for the time lag from when an initiative is implemented until it shows in the financial results to be taken into account (Katsikeas et al., 2000).

However, objective performance dimensions are not the only parameters of interest when assessing international performance. Firms do also have strategic goals for their international activities leading to a need for measures that are more subjective in nature (McDougall & Oviatt, 1996; Zou et al., 1998). Subjective performance dimensions include goal achievement, various forms of perceived, self-reported performance and direct comparisons to competitors (Porter, 1991; Madsen, 1998). More specifically market share and market position, perceived degree of competitiveness, a firm's perception towards export barriers and the firm's propensity to export have been widely used (e.g. Cavusgil & Kirpalani, 1993; Sousa, 2004; Leonidou et al., 2010). Contrary to objective performance dimensions, subjective ones allow for a firm's achieved results to be adjusted to expectations and goals, as well as for market conditions to be taken into account (Cavusgil & Zou, 1994; Solberg, 2002). As managers and employees know the goals of their firms and are able to include the current market situation in their assessment, their opinion is regarded as a good measure of the firm's actual success (White et al., 1998; Sousa, 2004). In line with this, most research has started including subjective measures in their performance studies (Sousa, 2004).

As firms normally have a number of different objectives for their internationalisation, the use of multiple performance dimensions in performance studies is recommended, as it gives a broader and more accurate picture of the overall performance of the firm (Cavusgil & Zou, 1994). This is also in line with Madsen (1998) suggesting that various stakeholders within a firm may have different performance goals. Moreover, different firms may have diverging performance goals, and the firms' objectives may change during the stages of internationalisation. Thus, it is found to be preferable to use multiple measures and compliment objective performance dimensions with subjective ones to operationalize international performance (Shoham, 1998; Aspelund et al., 2007; Madsen et al., 2012).

#### 2.2.2 Three complementing performance dimensions

As the performance goal of an international venture may differ depending on which stage in the internationalisation process the firm is in, we have identified three performance dimensions that are highly relevant for internationalising and international firms as they capture the success of the firm in the three main stages firms go through in new markets. Firstly, managers need to succeed in entering and establishing the firm in the new market. For this, they need to secure information on the market situation to make well-reasoned decisions and strategies for their market establishment. Thereafter, when the firm has gotten a foothold in the new market, it should aim on broadening its market power. In this phase, focus needs to be on securing a solid and lucrative strategic position. In the first two phases the success of information collection and positioning is typically seen as more important than economic performance. However, firms eventually seek to ensure financial gains and growth over time, by reaping the benefits of the achieved market position. In the following the performance dimension related to each phase will be further elaborated on.

#### Market establishment performance

Market establishment performance is related to the knowledge gathering performance dimensions mentioned by Sousa (2004) and Madsen et al. (2012). It concerns gaining information and knowledge that enable the management to make sound decisions and strategic plans, for the company to best establish itself in a new market. In other words, it depicts the firm's amount of information on the foreign market and the value of this information, which may help the firm get a foothold in the market. International operations are often perceived as more risky and uncertain than domestic business ventures, and knowledge about the market place is therefore vital in order to decrease the perceived uncertainty (Murray, 1991; Mitra et al., 1999). By gaining information on critical aspects of internationalising such as potential entry modes and competitive situation in the foreign market, companies are better equipped to make strategic decisions about the foreign venture. Market establishment performance is not as widely applied as the two other performance dimensions of the study (Sousa, 2004), however, in line with the above reasoning we argue that it is a highly important objective for the majority of international firms when first entering a new market.

### Market position performance

After establishing itself in the foreign market, firms aim to secure a solid and profitable market position. Performance dimensions measuring the market position of a firm are widely used in research (Zou et al., 1998; Myers, 1999; Solberg, 2002), and assesses the relative position a firm has achieved with regards to market power and image in the foreign market. Madsen (1998) suggests that market position is an important objective for firms seeking to establish themselves as main players in a market in the long run, as the firms can reap the advantages of this position in the future. Additionally, for SMEs with an objective to be acquired by larger firms, securing a solid market position can render them more attractive acquisition objects, as acquiring firms are often interested in getting hold of a solid market position, in line with Luo and Tung (2007). We therefore argue that Market position performance is an important performance dimension for a wide range of international firms.

## International revenue growth performance

Having gained an appropriate market position, a common performance aim for companies is to ensure economic growth. International revenue growth performance assesses the economic development of the companies' international activities over time. Sousa (2004) regards this as a strong and commonly used performance dimension. Applying a growth measure is in line with the recommendations of Katsikeas et al. (2000), as it allows for investigating the performance over time and thereby deepening the understanding of the actual results. Additionally, international growth is a solid measure of international performance as it separates the growth stemming from international activities from the total. Thus, International revenue growth is viable performance dimension for firms seeking short-term economic performance through maximising revenues as well as for firms pursuing long-term, sustainable performance in the international markets. For stock companies, firm earnings inducing increased economic value is also what the shareholders are ultimately requesting (Berk & DeMarzo, 2011, p. 13).

In sum, we believe the combination of these three performance dimensions gives a deep understanding of the international performance for SMEs in vital phases of internationalising. In line with the recommendations of applying multiple performance dimensions, these three dimensions will be applied in this study.

## 2.3 Determinants of international performance

In the literature considerable attention has not only been paid to the various performance dimensions, but to the determinants of international performance as well (e.g. Aaby & Slater, 1989; Zou & Cavusgil, 2002; Sousa et al., 2008; Chen & Tan, 2012). Several theoretical perspectives have attempted to explain firm performance differences, however, the resource-based view has become one of the most dominant perspectives in performance studies (Hoopes et al., 2003; Barney et al., 2011).

#### 2.3.1 Performance through the lens of the resource-based view

The intent of the resource-based view is to answer the core question for strategy researchers of why some firms perform better than others, as stated by Barney (1991). The perspective has an inside-out focus (De Wit & Meyer, 2010, p. 262) making it particularly suitable to assess the effect of internal factors of the firm, and thereby the research question of this study. Thus, in order to structure the identification of potential determinants of international performance, the resource-based view will be used as a starting point.

# Ability of the resource-based view to identify internal performance enhancing firm resources

The foundation of the resource-based view is the belief that a firm's resources are the primary determinants of its performance (Wernerfelt, 1984; Barney, 1991; Helfat & Peteraf, 2003; Barney et al., 2011). The perspective regards the firm as a heterogeneous bundle of resources and proposes that a firm may obtain advantages and superiority based on its unique resources (Coff, 1999; Hult et al., 2005). A major contribution of the resource-based theory is to provide an explanation to enduring differences in firm success that cannot be attributed to differences in external conditions (Peteraf, 1993).

Peng (2001) states that the ability of the resource-based view to separate winners from losers by examining the firms' resource base can be utilised to explain differences in domestic as well as global competition. This is in line with a lot of previous research finding that SMEs' international success is largely a function of the internal resources of the firm (e.g. Zahra et al., 2000; Knight & Cavusgil, 2004; Wu et al., 2007). Through identification of influential resources, SMEs can thereby prepare for internationalisation by developing an appropriate resource base (Knight & Kim, 2009).

In order to be of value and create competitive advantage for firms, resources need to hold specific characteristics (Day, 1994). The most useful resources are those that are valuable, rare, inimitable and non-substitutable, and thereby hold so-called VRIN resources (Barney, 1991; Crook et al., 2011). A resource holding all of these four characteristics is a potential source of sustained competitive advantage for firms, whereas a temporary competitive advantage can be secured by the resource only being valuable and rare. Resources without these features will be available to many firms or can easily be substituted with other resources, and are therefore unable to ensure competitive advantage for a firm (Peteraf, 1993; Knight & Kim, 2009).

Two assumptions of the resource-based view help explain how resources can obtain the valuable VRIN characteristics; resource heterogeneity and resource immobility (Barney, 1991). Resource heterogeneity assumes that various firms hold different resources, and it is the creation of differentiation through disequilibrium in resource holdings that leads some firms to hold stronger resource bases than others, enabling them to perform better (Wiklund & Sheperd, 2005). Resource immobility implies that resources cannot be perfectly transferred to other firms. Due to resource immobility, resource heterogeneity tends to be long lasting (Barney et al., 2001; Knight, 2001). The reasoning behind these assumptions lies in the fact that some resources can only be developed over long periods of time, incurring path dependence, which is almost impossible for competitors to copy. Additionally, some resources are based on complex social phenomena and are therefore impossible for other firms to acquire as they cannot be bought or transferred to other firms. This can further lead to causal ambiguity in how the resources are developed (Barney, 2001). A firm may hold both tangible and intangible resources, and in practice, it is easier for competitors to reproduce tangible resources, that is, resources with actual physical presence, than intangible resources that exist in abstraction. This is linked to the idiosyncratic, knowledge-intensive and complex nature of intangibles. Thus, for international SMEs that are often limited in tangible resources, intangible resources are found to be particularly important as they can be of major importance for the firm's success in operating internationally as well as they are hard for competitors to copy (Knight & Kim, 2009).

## Shortcomings of the resource-based view and its implications for this study

Although assumed to be an appropriate theory for identifying valuable resources, the resource-based view has received critique from several authors (e.g. Makadok, 2001; Priem & Butler, 2001; Kraaijenbrink et al., 2010). We have found the critique on two areas to be especially relevant for this study.

Firstly, in his article Barney (1991, p. 101) defines resources as "all assets, capabilities,

organisational processes, firm attributes, information, knowledge etc. controlled by a firm, that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness". This definition of firm resources has later been specified, and the term resource has been divided into resource and capability. Resources are defined as assets controlled by the firm and used as inputs to organisational processes whereas capabilities are intangibles used to combine, develop and use the other resources held by the firm (Teece et al., 1997; Makadok, 2001; Hoopes et al., 2003). Consequently, a firm is dependent on possessing both resources and capabilities in order to be able exploit their holdings and perform well (Makadok, 2001). However, the resource-based view has received critique for not clarifying the distinction between resources and capabilities sufficiently as there exists no clear and generally accepted division between firm resources and capabilities (Kraaijenbrink et al., 2010). This makes it hard to distinguish capabilities from resources (De Wit & Meyer, 2010, p. 249). Due to this shortcoming of the literature, and as the purpose of this study is not to differentiate between the influence of resources and capabilities, we will adopt Barney's (1991) definition in this study and let the term resources refer to both resources and capabilities throughout this study.

A second issue of concern with the resource-based view is the critique it has received for not providing explicit managerial implications on how to improve performance, as discussed by Priem and Butler (2001). They claim that operational validity is a necessary condition in order for research to be relevant to managers. As the resource-based view to a limited degree explains how managers should develop and acquire the unique resources leading to superior performance, the theory does not fulfil the operationalization criteria. We attempt to counter this shortcoming by including explicit implications for managers in Section 5.3, which provides practical suggestions for managers in order to develop the desired resources.

# 2.3.2 Utilising the resource-based view to identify determinants of performance

In the following, we will use the resource-based view as a starting point in identifying firm resources that are proposed to enhance international performance. This insight will be the basis for the development of hypotheses on the relations between resources and performance. The resources, together with the three performance dimensions discussed in Section 2.2.2, will form the conceptual model on international performance of this study.

Specifically, six resource groups have been identified to be of major importance for international performance by using the resource-based view. These are *Strength of value proposition*, *Financial sufficiency*, *Value of human capital*, *International orientation*, *Network orientation* and *International marketing strength*, as seen in figure 2. These resource groups were selected based on a thorough investigation of performance enhancing determinants previously proposed by performance literature. Although we cannot argue that the resources included in the model are exhaustive, we believe that they comprise a broad range of the resources that are important for SMEs to succeed in the international markets.

Using the resource-based theory to identify resources, we will also include insights from other theoretical views to broaden the understanding of some of the

performance relationships, as we believe that the resource-based view alone is not sufficient or superior in assessing all factors of a resource's influence on international performance. Therefore, insights from finance theory, entrepreneurship theory, management by values, network theory and agency theory will be included.

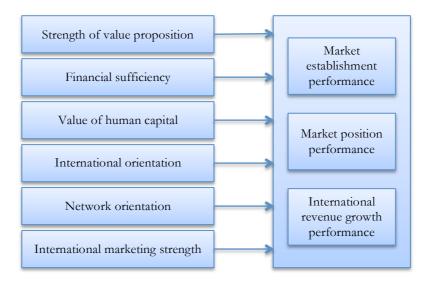


Figure 2: Conceptual model of international firm performance

### Strength of value proposition

In his article on strategic resources and the resource-based view, Barney (1991) mentions strength of value proposition as a vital resource group for firms' success. It falls into the category of physical capital resources and is defined as a cluster of physical goods, services or additional attributes offered to the customer (De Wit & Meyer, 2010, p. 237).

The strength of value proposition is important for performance as the ability to perform profitable transactions with customers, in the home market as well as internationally, is at the basis of any firm's existence (ibid). Profitable transactions only take place if the value proposition either creates superior value for the customers (Slater, 1997), is offered at a lower price than competing value propositions (Kaleka, 2002) or the company is able to supply a value proposition more closely adapted to the clients needs than rival firms (De Wit & Meyer, 2010, p. 236). Thus, the outcome of these transactions heavily depends on the strength of a firm's value proposition, and indicates that exceeding customers' expectations by having a strong value proposition lead to better performance because of higher sales and satisfied, returning customers.

Several factors may contribute to increase the strength of the value proposition, and Kaleka (2002) suggests new product development, improvements of existing products, access to technology and adoption of new methods as important measures. The focus on continuous improvement is supported by Kraaijenbrink et al. (2010), stating that a competitive product advantage is perishable unless continuously

strengthened by successful innovation. Thus, to be able to continue delivering superior value over time, companies need to continuously secure the resources required to stay ahead of competition and develop their value proposition through innovation.

However, Wiklund and Sheperd (2005) comment on how the life cycle of products have diminished lately due to faster innovation processes and earlier spread of knowledge. It is increasingly challenging to constantly be in front of product developments, making it harder for firms to rely on product competitiveness to enhance performance (Fetherstonhaugh, 2009). Still, in line with De Wit and Meyer (2010, p. 236), we propose that companies with a strong value proposition that provides a product advantage by being more closely adapted to the clients needs and is continuously improved through innovation will have higher international performance. Thus,

Hypothesis 1: SMEs with a product advantage compared to competitors have higher international performance.

Hypothesis 2: SMEs investing in product innovation have higher international performance.

## Financial sufficiency

Using the resource-based view to identify valuable firm resources, Kaleka (2002) finds financial capital to be of importance for firm success. As suggested by finance theory, a firm's capital can be divided in internal and external financial resources (Gertner et al., 1994). Internal finance is profit stemming from the firm's operations, whereas external finance is funds obtained from outside the firm, such as bank loans or equity from shareholders.

According to Cooper et al. (1994), financial resources enhance performance through direct and indirect effects. Direct effects include the ability to undertake more ambitious strategies, change courses of actions and meet the financial demands imposed by growth. In terms of indirect effects, higher capital accumulation allows for better training and more extensive planning of operations. Financial sufficiency has also been found to positively influence performance as it creates a buffer against random shocks, and permits firms to be more responsive to customer demands (Batjargal, 2003). It also provides the firm with the financial slack necessary to encourage experiments and innovation in the firm (Wiklund & Sheperd, 2005).

For firms wanting to internationalise, Knight and Kim (2009) discuss how the necessity of capital increases. The costs involved in establishing and running international ventures are likely to be higher than the costs of domestic expansion due to unfamiliar and more complex business environments, inducing heightened information and adaptation needs. Further, Batjargal (2003) mentions that SMEs often have limited financial resources internally, and that these firms are therefore dependent on external funds. However, smaller companies are found to experience difficulties in gaining access to external capital (Wang & Ahmed, 2009; Norwegian Ministry of Trade and Industry, 2012). Thus, for SMEs, lack of financial sufficiency due to difficulties in accessing external capital can be seen as a barrier to successful internationalisation. We therefore predict that for SMEs, which normally have limited

internal funds, adequate access to external capital can enable a higher international performance compared to firms lacking access to external financial resources. Hence,

Hypothesis 3: SMEs with sufficient access to external financing resources have higher international performance.

## Value of human capital

The resource-based view has made important contributions to the appreciation of human capital by classifying it as a strategically important resource to firms' success (Barney et al., 2001). From seeing labour as an undesirable cost, management literature has come to look at human resources as a valuable asset with increasing importance in generating economic value (Salaman et al., 2005, p. 1). Employees can be regarded as human carriers of knowledge and capabilities (De Wit & Meyer, 2010, p. 249) and Barney (1991) defines human value as the training, experience, skills, judgement, intelligence and insights of the firm's employees.

According to Coff (1999), human capital leads to enhanced firm performance in that the resource is socially complex and knowledge-based, and therefore may be a potential source of competitive advantage. This is in line with Crook et al. (2011), concluding that a company possessing superior human capital compared to their competitors performs better. Buchko (2007) states that a firm's success lies in making the employees of the firm execute organisational processes effectively. Their knowledge, experience and dedication are key factors in reaching desired goals, and they also influence the level of productivity and efficiency in the firm. Efficiency is positively related to performance improvements, and is seen as especially crucial for companies operating in high cost countries (Van Liemt, 1992).

Consequently, we suggest that firms with dedicated and efficient employees will perform better than others. Therefore,

Hypothesis 4: SMEs with highly dedicated and efficient employees have higher international performance.

#### International orientation

Using the resource-based view to identify intangible resources, Knight and Kim (2009) recognise international orientation as a resource group of major influence for the performance of international SMEs. International orientation is defined as a firm's proactiveness and aggressiveness in its pursuit of international markets. It is associated with the firm vision as well as the firm's development and commitment of resources aimed at achieving goals in international markets (Knight & Cavusgil, 2004; Knight & Kim, 2009).

International orientation is found to enhance performance by leading SMEs to undertake a more proactive approach to business in foreign markets (Javalgi, et al. 2011). This makes SMEs view the whole world as a their market place (Autio et al., 2000), better identify emerging international opportunities, more actively explore and pursue new business opportunities abroad and develop processes and decision-making targeted at markets abroad (Knight & Kim, 2009).

International vision is seen as an important element of international orientation due to its ability to direct and motivate employees (De Wit & Meyer, 2010, p. 600; Gordon, 2008). The vision directs the firm in that it influences all actions of the firm, thus colouring and constraining the firm's actions (Buchko, 2007), and ensures that all functions of the firm contribute to the overall international performance goal (Day, 1994). Regarding motivation, the vision motivates employees as it embraces more meaning to their work (Mobley et al., 2005). The term international vision is often mentioned in the entrepreneurial Born Global literature as a characteristic of the group of SMEs that internationalise shortly after inception, the Born Globals. (Rialp et al., 2005; Gabrielsson et al., 2008; Madsen, 2013). The resource is found to enhance their performance (Oviatt & McDougall, 1994; Knight & Cavusgil, 2004) and Moen (2002) states that international vision is a characteristic differentiating Born Globals from other international SMEs. In addition, firm vision is also regarded as crucial by proponents of the management by values perspective (Dolan & Garcia, 2002; Buchko, 2007). As Dolan and Garcia (2002) emphasise, the complexity of business markets today requires firms to continuously change. By focusing on communicating the firm vision and values to all employees and letting these functions guide and motivate all operations in the firm, companies are better equipped to handle unknown and changing business situations, leading to improved performance.

High international commitment is also required in order to ensure a true International orientation (Zou & Stan, 1998; Knight & Cavusgil, 2004; Knight & Kim, 2009). In addition to making firms more dedicated to their international business activities, it influences performance in that it improves the planning of international activities (Knight, 2000), and ensures commitment of sufficient resources to build profitable relations (Malhotra & Hinings, 2010).

For SMEs that are often limited in tangible resources, a strong international vision and high commitment may be required in order to take the initiative to pursue new opportunities in complex markets (Knight & Kim, 2009). Although the Born Global literature asserts that international orientation is unique for Born Globals, we propose that it may benefit all types of international SMEs. Consequently,

Hypothesis 5: SMEs with a strong international vision have higher international performance.

Hypothesis 6: SMEs with high commitment towards the international operations have higher international performance.

#### Network orientation

As mentioned by Barney et al. (2001), the resource-based view has emphasised international network ties as important resources for firms wanting to gain an advantage over competitors. Håkansson and Ford (2002) define network resources as structures connecting firms together through resources, knowledge and understanding.

When different firms have complementary interests and objectives, a joint effort through network cooperation can be mutually beneficial and increase the performance of all parties (De Wit & Meyer, 2010, p. 365). For firms operating in international markets, networks and international relations are especially relevant, as

the firms are often dependent on partners to be able to take advantage of opportunities abroad (Johanson & Vahlne, 2009). Although the resource-based theory acknowledges the importance of network resources, the benefits are even more elaborated on within the network theory. Gadde et al. (2003) describe how networks allow resources and costs to be shared between firms, and Ellis and Pecotich (2001) discuss how networks provide firms with local information and knowledge on foreign business opportunities. Cooperative arrangements also enable handing over tasks at which partners are superior at performing, and thereby permit firms to focus on their core competencies and tasks (Miller et al., 2002). For SMEs, network relations have been seen as indispensable for achieving growth, as it helps in overcoming their resource shortage (Coviello & Munro, 1997; Madsen et al., 2012).

Håkansson and Snehota (1989) further assert that the performance of a firm is related to the resources of its network. This is supported by Baraldi et al. (2007) noting that the potential benefits of a network relation depend on the quality of the network partners. Thus, the capability to identify and connect quality players to the network may have significant importance for a firm's performance. Additionally, the extent of a firm's business network is said to influence performance (Holmen & Pedersen, 2003). A large business network increases the firm's market power (Gadde et al., 2003) and creates entry barriers for other companies (Barney, 1991). Batjargal (2003) further proposes that the greater the size of the network of a firm, the better is the firm's performance as the large network increases the chance of locating attractive customers. However, Wilkinson and Young (2002) argue that the extent of network should be relatively narrow as cooperation dangers increase when the network increases, and as the firm is not able to exploit all opportunities identified by a large network anyway.

In addition to the quality and extent of the network partners, the firm's own perception towards cooperation and networks influence performance. Luo (2002) finds that firms determined to establish well-functioning cooperation, that is, having a high cooperation orientation and establish relational contracts to partners, perform better in alliances than others. High cooperation orientation enables the firms to achieve the above-mentioned benefits of network alliances, and having a cooperation orientation is often linked to establish trust and a sense of responsibility towards the partners (Ruppel & Harrington, 2001).

Although network resources have potential beneficial effects on performance, cooperation and network relations may involve risks if not handled properly (Lu & Beamish, 2001). Additionally, the risks are found to increase when cooperating with foreign partners (Kandemir et al., 2006). High-involvement networks are risky in that they require substantial investments and are costly to manage (Gadde et al., 2003), and they may also lead to lock-in effects that harm results if there is too little room for manoeuvring (Miles et al., 1998). The dangers and challenges of cooperation and network arrangements are well described by agency theory. The agency theory asserts that problems occur when one or more parties exploit the relationship and do not act in the best interest of others (Bergen et al., 1992; Shane, 1996). This is often caused by misalignment of the interests and objectives of the parties, and may potentially deteriorate the outcomes and performance of cooperation (Kim & Mahoney, 2005;

Cuevas-Rodríguez et al., 2012). However, it is argued that agency problems and opportunism can be prevented through establishing trust and close relations in the collaboration (Lee & Cavusgil, 2006).

Accordingly, despite the potential dangers related to network resources, we propose that the overall effect of a strong network orientation that is handled properly will positively influence the international performance of SMEs. Thus,

Hypothesis 7: SMEs with a strong and competent network have higher international performance.

Hypothesis 8: SMEs with an extensive network have higher international performance.

Hypothesis 9: SMEs with a strong cooperation orientation have higher international performance.

#### International marketing strength

Drawing on resource-based theory, the literature posits that firms with superior marketing strengths achieve higher business performance (Jaworski & Kohli, 1993; Hult & Ketchen, 2001). Marketing includes all processes involved in adapting, distributing and communicating the product to the market. In order to control and perform these processes properly, international firms need marketing resources (Barney et al., 2001).

Day (1994) describes market communication as a central part of marketing, emphasising the importance of firms to be present and well oriented in foreign markets in order to ensure international success. He defines market communication as the process of gathering, interpreting and utilising market information, indicating that effective market communication allows for two-way communication with firms informing as well as receiving feedback from the markets. According to Kaleka (2002), the benefits of effective market communication lie in capturing valuable foreign market information, identifying prospective customers, building customer relationships and monitoring competitors in the market. It also helps firms develop and reconfigure their resources to foreign market requirements, and thereby enabling them to respond to the market needs more effectively (Eisenhardt & Martin, 2000; Morgan et al., 2009). In line with this, it is proposed that the competitive advantage of market communication does not merely lie in the information itself but in the absorptive capacity of the firm (Matusik & Hill, 1998; Malhotra et al., 2005). The absorptive capacity is defined as the firm's ability to "recognise the value of new, external information, assimilate it and apply it to commercial ends" (Cohen & Levinthal, 1990, p. 128). Zahra and George (2002) elaborate on this stating that the capacity enables firms to increase performance as it ensures that the firm effectively acquire, assimilate, transform and exploit the market information.

Market information may also help firms identify attractive sources of supply and distribution, and thereby potentially improve the value chain and the overall marketing strength of the firm (Kaleka, 2002). Porter (1991) mentions value chain coordination as a source of competitive advantage and states that the competitiveness of the value chain comes from understanding the cost and differentiation potential of the value chain activities. This enables the firm to perform activities more efficiently and cheaply than rival firms. The strategic supply chain management literature

describes several advantages related to improvements of the value chain and logistics activities (Cousins et al., 2008, p. 10; Christopher, 2011, p. 11). Christopher (2011, p. 90) emphasises the importance of sensible procurement routines as more and more firms are focusing on their core competence only, leaving a significant proportion of costs for their final product to purchased components. Further, increased distances to international markets cause distribution to make up a larger part of the total costs of firms. Hence, firms with expensive distribution solutions will steadily fall behind as internationalisation increases. In line with this, proper coordination and planning of value chain activities have been identified as a strategic element and a way to increase performance (Zou & Cavusgil, 2002; Mol, 2003; Cousins et al., 2008, p. 48-49).

Overall, we propose that firms with efficient market communication and a well-coordinated value chain perform better than others. Hence,

Hypothesis 10: SMEs with effective market communication resources have higher international performance.

Hypothesis 11: SMEs with efficient value chain coordination have higher international performance.

The examination of resources and the developed hypotheses allow for an expansion of the conceptual model of the study, permitting the six resource groups to be described in a more detailed manner. The expanded conceptual model is displayed in figure 3 where all resources are proposed to influence performance positively.

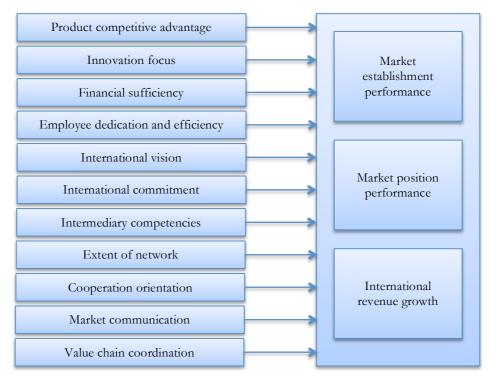


Figure 3: Expanded conceptual model of performance enhancing resources

#### 2.3.3 Taking risk into account

Performance is a topic investigated in several fields of research in addition to the international marketing field. Particularly in finance theory, performance is a topic of major interest. In finance, performance is rarely assessed without accounting for the risk induced in achieving particular results. Benninga (2010, p. 11) illustrates this by declaring that risk assessment of returns is one of the eight main principles of finance. Although the principle of performance being related to risk is well known and commonly accepted within the strategic management field too, risk has not normally been accounted for in SME performance studies (Watson & Robinson, 2003).

Forlani and Mullins (2000, p. 309) define risk as "the degree of uncertainty and potential loss associated with the outcomes that may follow from a given behaviour or set of behaviours". This implies that risk increases as uncertainty rises, and that the level of risk can actively be altered by firm actions, indicating that risk assessment should be a key managerial activity. In the finance literature, risk is often measured in terms of variability, proposing that increased variability in economic returns entails larger risk (Berk & DeMarzo, 2011, p. 296). This implies that by taking greater risk, a firm is likely to either achieve substantial gains or suffer substantial losses. Consequently, many successful companies have achieved their high results by accepting high risk (Watson & Robinson, 2002). In line with the finance theory, we propose that risk heavily influences performance. Thus,

Hypothesis 12: Risk significantly influences international performance of SMEs.

Conclusively, having used the resource-based view as a starting point to identify potential performance enhancing resources and added relevant insights about risk from finance theory, twelve hypotheses on performance influencers have been established. The hypothesised relations between resources, risk and performance are summarised in table 2.

Table 2: Summary of hypotheses

Summary of hypotheses	
H1	SMEs with a product advantage compared to competitors have higher international performance.
H2	SMEs investing in product innovation have higher international performance.
H3	SMEs with sufficient access to external financing resources have higher international performance.
H4	SMEs with highly dedicated and efficient employees have higher international performance.
H5	SMEs with a strong international vision have higher international performance.
H6	SMEs with high commitment towards the international operations have higher international performance.
H7	SMEs with a strong and competent network have higher international performance.
H8	SMEs with an extensive network have higher international performance.
H9	SMEs with a strong cooperation orientation have higher international performance.
H10	SMEs with effective market communication resources have higher international performance.
H11	SMEs with efficient value chain coordination have higher international performance.
H12	Risk significantly influences international performance of SMEs.

<sup>\*</sup> H indicates hypothesis

# Chapter 3 | METHODOLOGY

In this chapter the methodology applied to answer the research question of study will be outlined. Firstly, the research strategy will be presented, followed by a description of how literature was selected. Thereafter, the empirical data and the data analysis methods that have been applied will be discussed before the research quality is assessed.

### 3.1 Research strategy and design

In this section the rationale behind the research strategy will be outlined, in addition to a brief description of the research design, the unit of analysis and the overall research process of this study.

The research strategy chosen to answer our research question and determine what resources influence the international performance of Norwegian SMEs is deductive and quantitative. The study adopts a positivist epistemological position using methods from the natural sciences and statistical tests of hypotheses, in accordance with Bryman (2012, p. 27). A quantitative research strategy is deemed feasible for the exploratory nature of our research question (Yin, 2009, p. 9) and appropriate for testing hypothesised relations (Muijs, 2011, p. 7). Additionally, it is suitable for predicting the scores of some variables, in this case performance dimensions, from scores of other variables, in this study resources. A quantitative research strategy is also the most appropriate when aiming to generalize findings of a sample to the population (ibid, p. 6), which is the purpose when answering the research question of this study.

The employed research design is cross-sectional, applying a self-completion survey. This is a design that enables gathering of large amounts of data, and it is highly flexible in that it allows for studying a wide range of topics (Muijs, 2011, p. 38). A cross-sectional design was chosen in order to maximise the reliability and validity of the measurements, and ensure generalizability of the findings. As this survey design does not set up an artificial situation, it is easier to generalize these findings compared to findings from an experiment or case study (Muijs, 2011, p. 39). Additionally, the requirements mentioned by Yin (2009, p. 8) on the appropriateness of a survey design are fulfilled. He states that a survey design is appropriate if the nature of the research question is a "what question", the focus of the research is on contemporary events and control of behaviour events is not required. Additionally, the crosssectional design is consistent with the selected research design in several previous performance studies (e.g. Cavusgil & Zou, 1994; Kaleka, 2002; Knight & Kim, 2009), and therefore enables comparison of the findings to previous quantitative research. An additional advantage with this type of research instrument, according to Bryman (2012, p. 210), is that it is that it avoids interviewer biases and interviewer variability.

The unit of analysis in this study is the international firm, more specifically SMEs with international ventures. Consequently, the results from this study provide implications for the firm level. According to Amit and Schoemaker (1993) the firm is the most relevant unit of analysis to managers, as this is the level where they make

decisions and strategies. As the purpose of the study is to provide recommendations to managers (see Section 1.2), the firm is therefore an appropriate unit of analysis. In order to answer the research question of the study, a research process adapted from the traditional quantitative research, as described by Bryman (2012, p. 161) has been applied. The specific research process of this study is illustrated in figure 4. As illustrated, the research question was the starting point of the study and the steps following it were taken in order to answer this question. The second step of the process was identifying and examining relevant literature for the theoretical background in Chapter 2, providing hypotheses that predict the influence of resources on performance. In the third step empirical data was processed to operationalize the conceptual performance model, which was then analysed using multiple regression in the fourth step. As three performance dimensions were applied, three multiple regressions were performed. The next step comprised interpretation of the results, providing an answer to the research question as well as implications for theory and managers. In the final step, the study findings were synthesised in a conclusion.

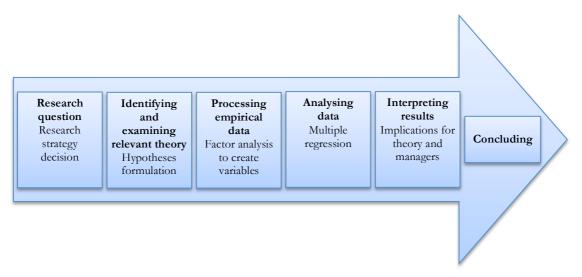


Figure 4: Illustration of the steps in the research process

#### 3.2 Relevant literature

The literature used in Chapter 2 was selected based on its relevance for answering the research question. Principles from systematic literature review (Bryman, 2012, p. 102) were applied, with the literature selection being guided by our research question and the perceived quality of the identified literature.

Several literature reviews covering the period from 1978 up to 2005 (e.g. Aaby & Slater, 1989; Zou & Stan, 1998; Sousa, 2004; Sousa et al., 2008) were used to gain an initial overview of the field of previous performance studies, as well as to identify key terms and authors. Keyword searches in databases such as Scopus, JSTOR, ProQuest and Google scholar were then used to identify further works on the topic. Each article or book was selected based on an evaluation of their relevance for answering the research question as well as the credibility of the authors and publishers. The main findings and research methods of the selected literature were recorded in a

database, and categorised according to topic. The literature review was then examined in order to develop the hypotheses constituting the conceptual model.

The literature used in this study includes previous performance studies, works on SMEs as well as literature on theoretical perspectives providing a deeper understanding of firm performance.

#### 3.3 Empirical data

In the following, the empirical data of the study will be presented. Firstly, the survey used to collect the empirical data will be described. Thereafter, the process of establishing regression variables as well as an elaboration on these applied variables will be outlined. For all processing of data, IBM SPSS Statistics 20 (2010) was used.

#### 3.3.1 The survey

The data set used in this study was collected through a survey in 2005 by researchers at the Department of Industrial Economics and Technology Management at the Norwegian University of Science and Technology. The survey titled "Export from Norwegian companies" was, according Madsen et al. (2012), constructed based on previous research such as Knight (1997). It was designed to collect quantitative data at a single point in time from several cases in order to detect patterns of association by examining relationships between the chosen variables. The survey comprises nine pages of questions regarding international activities, collaboration with intermediaries and customers, and communication and performance internationally (see Appendix A). For a more elaborated description of the development of the survey, see Madsen et al. (2012).

The recipients of the questionnaire were primarily senior managers of international Norwegian SMEs. The companies selected for participation were randomly drawn from the Kompass Norway Database, and the criterion for selection was having foreign sales (Aspelund & Flaam Moen, 2012). A total of 2415 questionnaires were distributed. 205 were returned due to address errors whereas 308 were returned with sufficient answers. This gives a response rate of 13.9 %. According to Madsen et al. (2012) the true response rate is higher because previous studies have shown that some questionnaires never reach the intended respondent. However, a total number of responses above 300 was regarded as satisfactory (ibid).

Researchers at NTNU have subsequently updated the survey data with financial figures from Statistics Norway. Overall revenue, overall profits before tax, number of employees, international revenue and total salary payments for each year from 1999 until 2009 have been added where available. In cases of mergers and acquisitions where it has no longer been possible to isolate the results of the original firm, the firms were deleted. However, companies going bankrupt in this period were kept in the data set to best reflect the total performance of the sample. All of the abovementioned financial figures were not obtainable for all companies for all years, resulting in missing values in the data set. Furthermore, in 2011, researchers validated the financial figures in the data set by manual inspection and compared to the data on revenue and year of establishment with two online databases; proff.no and finnfirma.no. Where discrepancies were found, the cases were examined more closely

to determine whether the data could be used.

Additionally, as this study investigates SMEs, we removed four companies from the sample, which violated our definition of SMEs (see Section 1.3) due to having more than 250 employees at the time of the survey. The total number of firms in the data set after inclusion of financial figures and validation is 280.

The survey data applied in this study is measured in natural scale and ordinal scale. Natural scale denotes data output being a number, for instance the number of employees. The ordinal scale indicates the position on a 7-levelled Likert scale, and is normally stating the degree of agreement or disagreement with a statement such as "The firm's culture is characterised by actively seeking possibilities in international markets".

#### 3.3.2 Regression variable establishment

To answer the research question of this study, the hypotheses presented in Chapter 2 were operationalized using the empirical data and statistical processing. In the following, the computation, recording and verification of the empirical data through factor analysis and the Cronbach's alpha test will be presented.

#### Factor analysis

In the survey of this study, several questions cover the same topic for validity purposes. Thus, in order to find the underlying dimensions described by several variables in a data set, we conducted a factor analysis, in line with Kinnear and Gray (2009, p. 565). By running a factor analysis on each sub category of variables, the dimensionality and number of interrelated variables in the data were reduced, while as much as possible of the data variance was preserved. This means that variables describing the same phenomenon are combined in a common factor. In this study, principal component analysis was conducted as an approximation to factor analysis. Since the solutions generated from a principal component analysis differ little from those derived from factor analysis techniques this is a suitable approximation, according to Field (2005, p. 643). When conducting the principal component analysis, the oblique rotation technique direct oblimin was used as this is recommended when variables are expected to be somewhat correlated (Costello & Osborne, 2005). Further, the extraction was based on eigenvalues greater than 1, in line with the Kaiser's rule, as described by Jolliffe (2010, p. 126). The results of the principal component analyses are found in Appendix B.

In order to ensure whether a principal component analysis was indeed appropriate for the data, we produced the correlation matrix, Barlett's test of sphericity, the Kaiser-Meyer-Olkin measure (KMO) and the anti-image matrix for each of the analyses. According to Field (2005, p. 640), variables must correlate in order for a principal component analysis to be appropriate, however, they should not correlate too high as this would cause difficulties in determining the unique contribution of the variables to a factor. Extreme multicollinearity was checked for in the correlation matrices by ensuring that the determinant was larger than 0.00001, in accordance with recommendations of Field (2005, p. 641). Multicollinearity was deemed unproblematic for all factors identified. Further, the Barlett's test of sphericity was found to be significant (p<0.01), indicating that the correlations between the

variables are not too weak for the analysis to be appropriate, hence rejecting the null hypothesis of the correlation matrix being an identity matrix. In addition to controlling the correlation of the variables, the adequacy of the sample itself was checked by the KMO measure. As the KMO measure was close to 1 and larger than 0.5 for all principal component analyses, it is in accordance with the recommendations of Field (2005, p. 640). Additionally, the diagonal values of the anti-image correlation matrix of covariance and correlations were all above 0.5, further underlining the usefulness of a principal component analysis on the sample (Field, 2005, p. 650). With all measures being well above their minimum limits, running principal component analyses on this sample was deemed appropriate.

When establishing factors, the logic and comprehensibility of the components in the matrix displaying the factors were examined to ensure face validity. Variable loadings above 0.3 were accepted in the individual factors, in accordance with Field (2005, p. 637) and variables with a loading greater than 0.3 in several factors were set to belong to the factor where their loading was the largest. The sample sizes varied slightly in the different principal component analyses due to missing entries in some variables. The lowest sample size was N = 211. According to Comrey and Lee (1992) 200 cases is fair and 300 is good, thus our sample can be deemed satisfactory. The factors are displayed in tables 3 to 9 together with the presentation of the applied variables of the regression (see Section 3.3.3).

### Cronbach's alpha test

A Cronbach's alpha test is run in order to evaluate the reliability of the factors constructed using principal component analysis, and this test was therefore undertaken for all factors in the study. Cronbach's alpha is a measure of internal consistency and the test was chosen because it is the most commonly used reliability test (Field, 2005, p. 667), hence increasing the comparability of our results. A Cronbach's alpha value close to 1 indicates the existence of a strong internal consistency within the variables, thus high reliability of the factor. In line with the recommendations of Norušis (2005, p. 430), factors with Cronbach's alpha values above 0.7 were accepted. This is in line with what similar studies report¹. Further, where deletion of one of the variables in the factor led to significant improvement in the Cronbach's alpha value, this variable was excluded from the factor. The results of the reliability test are found in tables 3 to 9 together with the factors and regression variables.

### 3.3.3 Applied regression variables

This section will present the variables that were used to operationalize the resources and performance dimensions outlined in Chapter 2. Firstly, the dependent variables, that is, the performance dimensions, are described. Thereafter, the independent variables measuring the resources are presented followed by the control variable measures. Most of the applied variables are constructs resulting from the principal component analysis. However, as no suitable constructs were found to describe some of the variables, single item measured in natural scale are used. The factor constructs

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<sup>&</sup>lt;sup>1</sup> Miles et al. (1999): alpha: 0.6-0.8. Zahra et al (2000): alpha: 0.71- 0.78. Nummela (2004): alpha: 0.67-0.93. Madsen et al. (2012) 0.72-0.91.

comprise variables measured ordinally using the Likert scale. The specific scale used for each question is presented below the respective tables describing the variables.

# Dependent variables

The dependent variable in this study is international performance. In line with current recommendations, the study will apply three performance dimensions to assess international performance of SMEs, as described in Section 2.2.2. Consequently, three regression models are performed, one for each performance dimension. The specific measurement constructs of the three dependent variables are displayed in table 3 and will be presented in the following.

Market establishment performance is measured subjectively using a variable constructed by the principal component analysis, and is inspired by similar measures applied in past research (Myers, 1999; Madsen et al., 2012). Specifically, the construct assesses how satisfied the company is compared to the expectations with the knowledge gained about the international market and potential entry modes, as displayed in table 3.

Market position performance is also measured subjectively by a factor construct. The measure is based on past research investigating the market position of firms (Myers 1999, Prasad et al., 2001; Solberg, 2002). Table 3 shows that Market position performance is operationalized by comprising the company's satisfaction with the achieved international market share, its image in foreign market and the sales growth, compared to the expectations.

International revenue growth performance is measured objectively and over time to investigate whether the company's international venture grows in economic terms. The applied measure is a single variable computing the relative growth in international revenue from 2004, when the survey was performed, to 2009. To limit the influence of company size, we chose to calculate the relative revenue growth, as opposed to the absolute growth, since absolute measures favour large companies, according to Davidsson et al. (2007). The measurement is similar to the ones used in other performance studies (Batjargal, 2003; Cadogan et al., 2002).

Although 2004 to 2009 is the time period of primary interest in this study, we apprehend that the 2000's financial crisis have influenced the financial results of firms in 2009, and thus the results of this study. In order to assess whether the results have been affected one year into the crisis, a regression model with the relative International revenue growth from 2004 to 2008 have also been run.

Table 3: Performance dimensions

Performance dimension	Loading	Cronbach's alpha
Market establishment performance ❖		
Compared to your expectations, how satisfied are you with the knowledge		
gained on competitor's strategy and behaviour (622)	0.833	
Compared to your expectations, how satisfied are you with the knowledge		
gained on new entry mode (623)	0.848	
Compared to your expectations, how satisfied are you with the access to		
new markets (624)	0.666	0.745
Market position performance �		
Compared to your expectations, how satisfied are you with the image you		
have created in the international market (620)	0.633	
Compared to your expectations, how satisfied are you with competence		
building through contact with demanding customers (621)	0.470	
Compared to your expectations, how satisfied are you with the total		
international results overall (625)	0.801	
Compared to your expectations, how satisfied are you with the		
international earnings/profitability (619)	0.817	
Compared to your expectations, how satisfied are you with the achieved		
international market share (616)	0.916	
Compared to your expectations, how satisfied are you with the		
international sales growth (617)	0.909	
Compared to your expectations, how satisfied are you with the		
international sales growth compared to your competition (618)	0.878	0.921
International revenue growth +		
(International revenue 2009 - International revenue 2004)/International		
revenue 2004		Single item

<sup>♦</sup> Measured on a scale from 1 to 7, where 1 is "Very dissatisfied" and 7 is "Very satisfied"

# Independent variables

The independent variables of the regression model are the resources of the conceptual model in figure 3 (see Section 2.3.2). The selection of variables to measure these resources are based on previous theory elaborated on in Chapter 2, and as far as possible inspired by measures applied by previous research. This has been done in order to increase comparability with other studies. The applied survey variables used to measure each independent variable will be presented in the following and are displayed in tables 4 to 9.

The two hypotheses on Strength of value proposition are operationalized by the variables product competitive advantage and innovation focus. Product competitive advantage is a factor entailing how unique the product is and how good the company is in delivering products that satisfy the customers' need compared to competitors. The measure is based on similar constructs used by Moen (2002) and Knight and Cavusgil (2004). Innovation focus is measured by a single variable reporting the share of total turnover spent on research and development, R&D. According to Fritsch and Franke (2004) the company's investment in R&D compared to total turnover is a good indicator of innovation. R&D is also confirmed by Kleinknecht et al. (2002) to be the most popular innovation indicator. The detailed content of the two measures is displayed in table 4.

**<sup>♣</sup>** Measured in million NOK

Table 4: Variables measuring Strength of value proposition

Strength of value proposition	Loading	Cronbach's alpha
	Loading	агрпа
Product competitive advantage *		
Our product/service is considered by the customers to be technologically		
advanced (407)	0.668	
Our most important product/service is aimed towards special needs, as these		
needs are difficult for competitors to satisfy (501)	0.639	
Compared to competitors our most important product/service represents a		
new and innovative way to solve the customer's need (502)	0.756	
Compared to competitors our most important product/service is based on		
unique technology (504)	0.846	
Compared to competitors our most important product/service has unique		
features (505)	0.824	0.827
Innovation focus +		
Share of total turnover invested in research and development (328)		Single item

<sup>❖</sup> Measured on a scale from 1 to 7, where 1 is "We are weak at this" and 7 is "We are good at this"

The hypothesis regarding Financial sufficiency is operationalized by a factor with the same name and is inspired by previous research (Wiklund & Sheperd, 2005; Wang & Ahmed, 2009). Financial sufficiency assesses whether the company has sufficient access to external capital from creditors and private investors in order to be able to grow further. The factor is based on survey variables considering the firm's most important obstacles for company growth, as illustrated in table 5.

Table 5: Variables measuring Financial sufficiency

Financial sufficiency	Loading	Cronbach's alpha
Financial sufficiency *	J	
Lack of loan capital is not an important impediment for company growth		
(212, reversed)	0.920	
Lack of investment is not an important impediment for company growth		
(213, reversed)	0.922	0.820

<sup>\*</sup> This variable has been reversed in order to capture the desired construct Measured on a scale from 1 to 7, where 1 is "Not at all" and 7 is "Very much so"

Hypothesis 4 on Value of human capital, is operationalized by the factor *employee* dedication and efficiency. The factor is inspired by Park et al. (2003) and consists of two single items describing how dedicated and productive the employees of the firm are compared to other companies in their most important international market. Table 6 shows the content of the constructed variable.

Table 6: Variables measuring Value of human capital

Value of human capital	Loading	Cronbach's alpha
Employee dedication and efficiency		
Employees' comparative* efficiency (928)	0.831	
Employees' comparative* dedication to the company's development (929)	0.824	0.738

<sup>\*</sup> Compared to other companies in the most important international market Measured on a scale from 1 to 7 where 1 is "We are weak at this" and 7 is "We are good at this"

 <sup>★</sup> Measured in percentage of turnover

International orientation is described by the variables *international vision* and *international commitment*. The *international vision* of the organisation is measured using a factor in line with the work of Moen (2002) and Knight and Kim (2009) and entails what motivates the company's international activities and how internationally oriented the company strives to be. *International commitment* is operationalized using a factor measuring whether the company provides sufficient resources, both human and financial, to their international ventures. Similar measures for *international commitment* have been used by Kaleka (2002) and Moen (2002). The detailed content of the factors can be seen in table 7.

Table 7: Variables measuring International organisational culture

International orientation	Loading	Cronbach's alpha
International vision		
Desire to grow is a motive for international activities (514)  The possibility for increased profit is a motive for international activities	0.733	
(515)	0.788	
We see the world, not just Norway, as the firm's market (516)	0.801	
The firm's culture is characterised by actively seeking possibilities in international markets (518)	0.815	
The firm is good at developing and adapting new and existing products/services to international markets (519)	0.741	
The importance of succeeding with international ventures is emphasised towards all employees (520)	0.822	
Development of human and other resources to contribute to successful international is emphasised (521)	0.732	
Decisions regarding one international market is coordinated with decisions regarding other international markets (524)	0.530	0.895
International commitment		
Adequate financial resources are committed to international activities compared to sales targets (522)	0.843	
Adequate human resources are committed to support distribution and customers abroad compared to target sales (523)	0.893	0.733

All items measured on a scale from 1 to 7 where 1 is "Completely disagree" and 7 is "Completely agree"

The three hypotheses on Network orientation will be quantified by the quality of the network through *intermediary competencies*, the *extent of network* and the company's *cooperation orientation*, as illustrated in table 8. These resources will be measured using factors, and are inspired by Ritter and Gemünden (2004), Eisingerich and Bell (2008) and Luo (2002), respectively. The factor construct describing *intermediary competencies* entails how well the most important intermediary in the most important international market performs and how this is of assistance for the core company. *Extent of network* is measured by the diversity in company types that the core company cooperates with, as cooperation with several types of companies implies a larger extent of network. *Cooperation orientation* is assessed by the company's ability and desire to cooperate closely with intermediaries and its willingness to exchange useful and important information.

Table 8: Variables measuring Network orientation

Network orientation	Loading	Cronbach's alpha
Intermediary competencies �		
Partner has helped improve the company's results in this market (901) Partner has helped the company become more competitive by adapting to	0.839	
customer needs (902)	0.862	
Partner has helped the company become more competitive by responding to changing conditions (903)	0.847	
Partner has been good at performing sales tasks (904) Partner has been good at providing technical support and training for clients	0.865	
(905)	0.806	
Partner has been good at performing services after sale (906)  Partner has been good at setting prices in accordance with local conditions	0.803	
(907)	0.786	
Partner has been good at gathering market information (908)	0.818	
Partner has been good at identifying new market opportunities (909)	0.771	0.940
Extent of network +		
To what degree does your company cooperate with large companies (120)	0.693	
To what degree does your company cooperate with SMEs (121)  To what degree does your company cooperate with companies outside of	0.745	
Norway (122)	0.507	
To what degree does your company cooperate with suppliers (123)	0.677	0.712
To what degree does your company cooperate with customers (124)	0.680	0.712
Cooperation orientation ◆ Both parties are willing to adjust the cooperation to changing conditions (707)	0.797	
Both parties are able to adjust the cooperation to changing conditions (708) The exchange of information is done informally, and not only due to formal	0.748	
agreements (710)  It is expected that both parties keep each other informed of events or	0.465	
changes which may affect the other (713) Relational problems are treated by both parties as mutual problems, rather	0.779	
than individual problems (714)	0.797	
The parties do not mind owing each other favours (715)	0.350	
Both parties focus on the individual agreement and on continuing the cooperation (716)	0.835	0.871

- ♦ Measured on a scale from 1 to 7, where 1 is "We are weak at this" and 7 is "We are good at this"
- ♣ Measured on a scale from 1 to 7, where 1 is "No cooperation" and 7 is "Extensive cooperation"
  ♦ Measured on a scale from 1 to 7 where 1 is "Completely disagree" and 7 is "Completely agree"

Based on the two hypotheses presented in Chapter 2, International marketing strength is divided into the factors market communication and value chain coordination. Market communication is operationalized based on measures applied by Moen (2002) and Knight and Kim (2009). It assesses the ability of the company to provide service related tasks, and communicate with and receive information from their clients. The measure is consequently a two-way measure of the communication of the firm assessing the firm's communication outwards as well as the feedback received from the market. Value chain coordination is inspired by the work of Porter (1991) and a similar measure used by Knight and Kim (2009). It is a factor describing the company's capability compared to other companies of managing the different parts

of their value chain in their most important international market. The detailed content of the factors are displayed in table 9.

Table 9: Variables measuring International marketing strength

International marketing strength	Loading	Cronbach's alpha
Market communication		
The company's comparative* ability to perform sales and marketing related tasks (913)	0.711	
The company's comparative* ability to perform customer service and handle customers (914)	0.441	
The company's comparative* ability to identify new and creative methods in marketing (922)	0.698	
The company's comparative* ability to communicate with the market (923)	0.821	
The company's comparative* ability to perform personal sales (924)  The company's comparative* ability to be present in new and innovative	0.719	
markets (930)	0.526	0.808
Value chain coordination		
The company's comparative* ability to perform the sourcing function (910)	0.778	
The company's comparative* ability to perform the production function (911) The company's comparative* ability to perform the logistics and distribution	0.707	
function (912)	0.726	
The company's comparative* ability to perform the financial and economy		
management function (915)	0.624	0.708

<sup>\*</sup> Compared to other companies in the most important international market

Measured on a scale from 1 to 7, where 1 is "We are weak at this" and 7 is "We are good at this"

#### Risk inclusion

To account for volatility in international revenue, in line with suggestions from finance theory (see Section 2.3.3), *risk* is included in the regression models for International revenue growth performance. This is done in both the 2004-2009 model and the 2004-2008 model. The reason for *risk* only being included in the International revenue regression model is that investigation of volatility requires data to be collected over time, and International revenue growth is the only performance dimension with data for several years.

As displayed in table 10, *risk* is operationalized by the standard deviation of international revenue. The standard deviation is calculated as in equation 1, where  $\sigma$  is the standard deviation,  $x_i$  is the revenue of year i,  $\mu$  is the average revenue for all years, and n is the number of values, which in this study represents the number of years of available financial data.

$$\sigma = \sqrt{\frac{1}{n-1} \sum_{i=1}^{n} (x_i - \mu)^2}$$

**Equation 1: Standard deviation** 

The equation measures the variation in historical revenues over time. Standard deviation is a widely used proxy for risk in finance theory (Engle, 2004; Berk & DeMarzo, 2011, p. 296), however, profits are a more commonly used than revenue. As this study aims to account for the unpredictability and hence uncertainty experienced by the companies in their international growth, using the standard deviation of revenue is still a highly applicable measure for our purpose.

Table 10: Risk variable included in the International revenue growth performance model

Variable	Measurement
Risk*	Standard deviation of international revenue from 2004 to 2009** (Equation 1)

<sup>\*</sup> Only included in the International revenue growth performance models

### Control variables

Control variables are independent variables that are added to multiple regression analyses to account for characteristics inherent in the companies that might influence the proposed relationships with performance (Eikemo & Clausen, 2007, p. 59). Such inherent characteristics are difficult or impossible for management to change, but can still be explanatory for parts of the company's international performance. According to Murphy et al. (1996) failing to take such control issues into account can result in biased relationships, and in line with previous research, the control variables *company size* and *company age* are therefore added to all three regression models of this study. By controlling for these characteristics, we ensure that the identified relationships between the resources and the performance dimensions are not confounded by the firms' size or age, as described by Kleinbaum et al. (2008, p. 12).

Company size has been previously found to influence performance (Murphy et al., 1996), and is therefore added to the regression models. The influence is related to larger companies in general having a larger resource base to boost performance with (Zahra & Garvis, 2000; Collins & Clark, 2003). Although the influence of company size in our model has already been attempted limited by using a relative measure of financial growth in the International revenue growth model, company size is added as a control variable to further assure that it does not influence any of the results. In accordance with Knight and Kim (2009), company size is measured by the number of employees in 2004, as displayed in table 11.

Adding *company age* as a control variable is linked to the reasoning of including *company size*, as older firms through their years of existence, may have gathered more resources than younger companies. Additionally, older firms have gained more experience, and both resources and experience can positively influence international performance (Zahra et al., 2000). As seen in table 11, company *age* is calculated as the difference between the company's year of establishment and 2004, when the survey was performed, similar to Zahra et al. (2000).

<sup>\*\* 2004</sup> to 2008 for the regression model from 2004 to 2008

Table 11: Control variables included in the regression models

Control variable	Measurement
Company size	Number of employees in 2004
Company age	Year the study was performed (2004) – The company's year of establishment (103)

### 3.4 Data analysis

To answer the research question, statistical analysis of the model variables presented in Section 3.3.3 was conducted. This was done using multiple regression in order to test the hypothesised relations between resources and international performance developed in Chapter 2. Multiple regression is an appropriate regression method when dependent and independent variables are continuous (Field, 2005, p. 157), which is the case in this study. In the following, this regression method will be presented before ensuring that it is an appropriate method for analysing the empirical data of this study.

### 3.4.1 Multiple linear regression

A multiple regression is a linear regression with two or more independent variables, illustrated by equation 2. The analysis finds the linear combination of the independent variables,  $X_i$ , that best describes the dependent variable, Y. The best fit is determined by the method of least squares (Norušis, 2005, p. 241). In our case,  $X_i$  therefore denotes the resources described in Section 3.3.3 whereas Y represents the performance dimensions. The betas,  $\beta_i$ , describe the influence of each independent variable on the dependent variable when holding the effect of all other predictors constant. The error term,  $\epsilon$ , captures the remaining variance that is not described by the model (Field, 2005, p. 145).

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon$$

Equation 2: Multiple linear regression

The results of a regression depend on the manner and the order variables are entered into the model (Field, 2005, p. 159). In this study, we have used *block wise with enter* as the entry method. Block wise, or hierarchical, entry is chosen due to its advantage of isolating the contribution of the various groups of variables, as according to Muller and Van Tulder (2005). By doing this we were able to identify the influence of each resource as well as each resource group, as described in Chapter 2. The enter method is appropriate when the model is based on propositions from past research (Field, 2005, p. 160), which is the case in this study as the hypotheses rely on previous theory on performance. The order and content of the blocks in the regression followed the conceptual model presented in figure 2, with control variables being inserted in the first block. In the International revenue growth performance model, the risk variable is added in the same block as the control variables. The results of the multiple regression will be presented in Chapter 4, and a detailed overview of the multiple regression output from SPSS can be found in Appendix E.

In block wise regression combination effects may occur. This means that as more blocks are added in the regression, the predictive ability of the previously entered variables changes. This is seen by changes in the significance level of the already added variables. Decreasing significance indicates that some of the variation in performance that was explained by the variable is in fact better explained by another entered variable. Increasing significance as more variables are added to the model, on the other hand, implies that the variable does not have significant influence when entered, but turns significant as particular variables are entered later. This indicates that the different variables are together able to describe changes in performance.

# Evaluating sample size adequacy

In order for a multiple regression analysis to be appropriate, the sample size needs to be adequate. According to Field (2005, p. 172), several estimates can be used to evaluate whether this is the case. Firstly, a rule of thumb is that for each independent variable there should be ten cases, not counting the control variables. In our model there are eleven independent variables, resulting in a minimum required sample size of 110. Secondly, according to Green (1991, cited in Field, 2005, p. 173), a minimum regression sample size of 104 + k is required when the aim is to test the individual predictors within the model. As k denotes the number of independent variables in the model, a minimum sample size of 115 is required in our case.

When performing a multiple regression in SPSS, cases are excluded list wise causing a fall out of cases. Therefore the number of valid entries in the regression, N, of 105 to 160 valid entries (see Section 4.2), is comparatively lower for all three models than the total sample size of 280 reported in above. However, the lowest number of valid entries in the regressions is very close to the sizes recommended, and the sample sizes are therefore regarded as sufficient for analysing our model.

# Testing assumptions of multiple linear regression

The assumptions of linear regression must also be satisfied in order for multiple regression to be appropriate, and for the regression results to be generalizable to the population (Field, 2005, p. 162; Norušis, 2005, p. 244). In the following, the assumptions and the tests performed in order to ensure that they are satisfied will be presented.

The first assumption of multiple regression is that the residuals in the regression are randomly and normally distributed around 0, and thus have a mean of 0. This is because the residuals are zero or close to zero when the regression line fits well. This assumption was controlled for by investigating the shape of a histogram of the residuals and a probability-probability plot, P-P plot, of the residuals. These plots can be seen in Appendix D. By inspection, the Market establishment performance and Market position performance regression models were found to have approximately normally distributed residuals, thus satisfy the assumption. However, this was not the case for International revenue growth performance. In an attempt to satisfy the assumption for this performance dimension, a logarithmic transformation of the revenue growth variables was performed. This is a commonly used practice in regression analysis to stabilise error variance and normalise the error distribution (Breiman & Friedman, 1985). As suggested by Whittaker et al. (2005), we transformed the dependent variable using the neglog transformation based on the

natural logarithm, as seen in equation 3. x denotes the dependent variable being transformed. This logarithmic transformation is customised for variables with both positive and negative values (ibid), which is the case for the International revenue growth performance values.

$$f(x) = sign(x) * \ln(|x| + 1)$$

Equation 3: The neglog transformation equation

After the transformation, the residuals of international revenue growth became approximately normally distributed. Thus, with the transformation the first assumption is satisfied for all three performance dimensions (see Appendix D).

Avoidance of heteroscedasticity is another assumption of multiple linear regression. Heteroscedasticity indicates whether the residuals at each level of the predictors have very unequal variance (Field, 2005, p. 170). This assumption was checked by examining a scatterplot of the standardised residuals versus the standardised predicted values of the dependent variable, as recommended by Christophersen (2006, p. 179). In line with the recommendations, heteroscedasticity is deemed unproblematic as the scatterplot showed a random array of dots evenly dispersed around zero for all three performance measures (see Appendix D).

Further, there should be no perfect multicollinearity between the various independent variables in the regression model (Christophersen, 2006, p. 180). Multicollinearity has a negative effect on the regression as it increases the type II error, limits the explanation power of the model, R2, and makes it difficult to assess the individual importance of a predictor. Three actions have been taken in order to reduce and control for multicollinearity of the sample. Firstly, we have constructed factors using principal component analysis to combine variables that describe the same construct, thus combining variables that are collinear (see Section 3.3.2). Secondly, we have investigated the correlation matrices to ensure that no independent variables correlate too highly. Low levels of collinearity pose little threat to the models generated by SPSS (Field, 2005, p. 170) and the highest correlation occurring in our results is 0.449 (see Appendix C), which is well below the limit for concern of 0.8 proposed by Field (2005, p. 174). Thirdly, to further confirm the satisfaction of the assumption, the variance inflation factor, VIF, for each variable was investigated. VIF measures whether a predictor has a strong linear relationship with the other predictors. Table 12 reports the VIF values from our results and shows that all values are below 2. This is well below the general limits for concern of 5 according to Field (2005, p. 175) and 10 according to O'Brien (2007).

Table 12: Variance inflation factor, VIF, for all regression models

VIF	Market establishment performance	Market position performance	International revenue growth performance
Company size	1.235	1.235	1.499
Company age	1.237	1.237	1.309
Product competitive advantage	1.540	1.540	1.664
Innovation focus	1.368	1.368	1.753
Financial sufficiency	1.154	1.154	1.234
Employee dedication and efficiency	1.230	1.230	1.278
International vision	1.636	1.636	1.732
International commitment	1.324	1.324	1.412
Intermediary competencies	1.251	1.251	1.155
Extent of network	1.232	1.232	1.244
Cooperation orientation	1.301	1.301	1.301
Market communication	1.487	1.487	1.665
Value chain coordination	1.329	1.329	1.328
Risk			1.531

Another assumption of multiple regression is no autocorrelation. Autocorrelation occurs when the residuals of two observations in a regression model are correlated (Field, 2005, p. 170). According to Huitema (2011, p. 378) this distorts the standard errors of the estimated regression parameters, leading to incorrect significance values. This assumption was tested with a Durbin-Watson test. Durbin-Watson values between 1 and 3 pose no problem with autocorrelation (ibid), and as table 13 displays, all of our values are within this interval, indicating that autocorrelation is not a problem for the regression models of this study.

Table 13: Durbin-Watson test for all regression models

	Market establishment performance	Market position performance	International revenue growth performance
Durbin-Watson value	2.137	2.096	1.229

Lastly, a linear multiple regression analysis naturally assumes that the relationship between the dependent and the independent variable is linear. Some of the independent variables in this study turned out the have an insignificant relationship with all the performance dimensions, although significant relationships were predicted by theory. Consequently, we assessed whether a curvilinear relation could better predict the relationship. Based on theory, a quadratic relation was deemed feasible for two of the insignificant variables. By including the mean centred, quadratic equivalent of the variables in questions in all three regression models, the existence of quadratic relations were examined. The original variables in question were also kept in the model, but mean centred similarly to the squared version, in line with Orme & Combs-Orme (2009, p. 177). The results of controlling for quadratic relations will be presented in Section 4.3.2, and are displayed in detail in Appendix F.

# Controlling for unusual values and influential points

The existence of outliers in the data may have a large influence on regression coefficients and significance levels in the regression models, and should therefore be identified and examined (Field, 2005, p. 162). In order to control for outliers in the form of influential points or unusual values, we assessed Cook's distance and standardised residuals, respectively, as recommended by Eikemo and Clausen (2007, p. 133).

Cook's distance checks for influential points by measuring the overall influence of a case on the model. According to Norušis (2005, p. 229) values greater than 1 may indicate influential points in the data. As shown in table 14, none of the Cook's distances in our regressions are above 1, the largest being 0.365, indicating that there is no problem with influential point in the data set.

Table 14: Cook's distance for each regression model

	Market establishment performance	Market position performance	International revenue growth performance
Maximum Cook's distance in regression	0.365	0.122	0.090

Potential unusual values were examined by investigating the standardised residuals from the regression. According to Field (2005, p. 164), 95 %, 99 % and 99.9 % of the standardised residuals in the sample should be smaller than the absolute values of 1.96, 2.58 and 3.29, respectively, to be normally distributed. Examining the values of standardised residuals discloses that none of the regression models have standardised residuals with absolute values larger than the maximum limit of 3.29, as illustrated in table 15. However, the results for both Market establishment performance and Market position performance are very close to the limit, and closer inspection reveals that there are several cases with larger standardised residuals than 1.96, implying that unusual values may exist, and consequently that the model is not a perfect fit to the sample data. Yet, this finding is linked to the assumption of normally distributed residuals previously discussed in Section 3.4.1. When inspecting the normality assumptions, it was found that the residuals are not perfectly normally distributed but display a close approximation of normality. However, as the removal of some of the influential cases did not alter the regression results significantly, it seems that the absence of perfect normality of the residuals are not deteriorating for the results.

Table 15: Standardised residuals for each regression model

	Market establishment performance	Market position performance	International revenue growth performance
Minimum standardised residual in regression	-2.782	-3.243	-2.052
Maximum standardised residual in regression	2.448	3.101	2.457
Mean value of standardised residuals in regression	0	0	0

In addition to checking Cook's distance and standardised residuals we removed random cases from the data set to further investigate whether this changed the results in any way. If the sample is representative for the population the removal of a few random cases should not change the results (Zou & Yang, 2004). We found that the results essentially remained the same, indicating that the sample has a high representativeness of the population. In general, there are rarely any models in regression analysis or other statistical procedures where assumptions are not violated in some way (Norušis, 2005, p. 270), thus we decided to keep the cases with the unusual values in the sample.

Conclusively, the assumptions for multiple regression are satisfied for the regression models in this study, and outliers are determined to not provide any significant problems. The regression models therefore appear to describe the sample accurately and the results are generalizable to the population. Hence, the models are deemed valid for further interpretation and analysis.

# 3.5 Research quality

The research quality of this study will be assessed in order to investigate the strengths and weaknesses of the chosen methodology. Ensuring high research quality was the main motivation for choosing of a quantitative and deductive research strategy for this study as well as the reasoning behind using principles from natural sciences, i.e. a positivist epistemological position. According to Bryman (2012, p. 46) three of the most prominent criteria for evaluating social research are replication, reliability and validity. These three criteria will be evaluated in the following. Additionally, further limitations of the study will be addressed at the end of Chapter 5.

### 3.5.1 Replicability

It is an aim for scientific research to be replicable in order for others to be able to repeat the exact studies (Bryman, 2012, p. 177). To ensure that other researchers can replicate this study, we have endeavoured to present the applied procedure of the study in detail. The survey, which is the source of our empirical data, is attached in Appendix A. Further, the theory on which our hypotheses are based on is presented in Chapter 2, and a detailed reference list is also presented at the end of the study. Finally, the applied procedure to answer our research question has been documented in detail in this chapter, describing all major steps performed. However, the application of a principal component analysis can make it difficult to reproduce the exact same variables as well as harder to directly compare results to other similar studies. Still, the detailed factor content is presented, and we assert that the overall replicability of the study is sufficient.

### 3.5.2 Reliability

Reliability concerns the degree to which the results from a study will turn out to be the same if the study is replicated. This means that if the same procedure was followed, the same conclusions should be reached (Yin, 2009, p. 45; Bryman, 2012, p. 46). Bryman (2012, p. 168) describes three types of reliability; stability, internal reliability, and inter-observer consistency.

### Stability

The stability of a measure assesses how stable it is over time (Bryman, 2012, p. 168). For this study, this measure assesses whether the replies to the survey would be the

same if performed again. In order to assess this, it is recommended to conduct testretests (ibid), but this has not been done in our case due to resource constraints. Accordingly, we are not able to control this requirement. It is therefore desirable that similar future studies apply the same measures to the same population to test this. In order to facilitate this, the detailed description under 3.5.1 has been provided.

### Internal reliability

Internal reliability reflects the extent to which causal conclusions are warranted (Bryman, 2012, p. 170). In this study, internal reliability of the factor constructs was assessed using the Cronbach's alpha test of reliability. All construct variables were found to have satisfactory internal reliability, with the lowest Cronbach's alpha value being 0.708 (see Section 3.3.2). Internal reliability is closely connected to construct validity, which is further addressed in section 3.5.3 below.

### Inter-observer consistency

Lack of inter-observer consistency arises when a great deal of subjective judgement is involved in the recording of observations (Bryman, 2012, p. 169). This is not considered a potential issue for this study due to the quantitative nature of the research strategy. All data has been collected in an objective manner not requiring significant subjective judgement.

Despite being unable to assess the stability of the variables, the reliability of the study is in accordance with the principles of Bryman (2012, p. 168), thus regarded as satisfactory.

### 3.5.3 Validity

Validity is concerned with the integrity and the accuracy of the conclusions that are generated in a study (Bryman, 2012, p. 47). To be able to secure validity, we have strived to make the study reliable, as reliability is a prerequisite for validity. Additionally, specific validity issues have been addressed, and in the following we will evaluate the three main types of validity mentioned by Yin (2009, p. 40); construct validity, internal validity and external validity.

### Construct validity

Construct validity entails whether the operational measures correctly represent the concepts being studied (Yin, 2009, p. 41). This type of validity has been addressed in several ways. Firstly, what Bryman (2012, p. 47) refers to as face validity has been checked when the questionnaire was developed, according to Madsen et al. (2012). This was done by using previously internationally published scales and a pre-test in a small group of company managers to assure that questions were concise with a minimum of ambiguousness and unfamiliar terms. Additionally, we have checked the face validity of the factor variables resulting from principal component analysis, by controlling that the resulting combinations of variables appeared logical.

Further, as mentioned in Chapter 2, several dimensions can measure performance, and the appropriate measure largely depends on the performance aim of the company. To increase construct validity in measuring performance, we have therefore applied three performance dimensions, and included both subjective and objective ones as recommended (see Section 2.2). Nevertheless, as will be pointed out in

Section 5.4 Limitations, the performance dimensions in this study are not exhaustive as there are numerous performance dimensions that can be used.

Another measure increasing construct validity is the inclusion of risk in the International revenue growth performance model. Including risk ensures that results and recommendations are based on firms with stable international revenue. However, the risk measure adopted in this study, standard deviation, has been criticised for not taking into consideration whether the financial variability is positive or negative for the firm (Campbell et al., 2001). Yet, the risk we are interested in measuring is the actual volatility companies experience when operating internationally, and the standard deviation of international revenue is therefore a measure that has high construct validity for the purpose of this study.

### Internal validity

Internal validity concerns causality of the identified relationships and the ability to separate actual relationships from spurious ones between two or more elements (Yin, 2009, p. 43). According to Bryman (2012, p. 60) internal validity is typically weak in cross-sectional research designs because the researcher cannot control the environment. This makes it difficult to establish the causal direction from the resulting data (Muijs, 2011, p. 39). Due to this ambiguity, the causalities of this study have been inferred by reviewing existing theory, as recommended by Bryman (2012, p. 341). The hypotheses comprising the conceptual model were created based on theoretical causality and lie as the basis for the inferences made in Chapter 5. Yet, for the International revenue growth regression model, internal validity is of lesser concern than for the other models. As the financial figures are from the five-year period after the survey was conducted, a causal relationship can be supported due to temporal precedence, as according to Bryman (2012, p. 34).

To control for alternative relationships not directly considered in the model, control variables have been included in the model. Controlling for potentially confounding variables reduces the potential for an alternative explanation and provides more confidence that the effects identified are due to the independent variables (Slack, 2001). Additionally, quadratic relationships have been tested in cases where linearity not necessarily could be exclusively assumed. As elaborated on in Section 4.3.2, no quadratic relationships were found, strengthening the internal validity of the results.

### External validity

External validity concerns the statistical generalizability of the study, and assesses whether the results of a study sample can be generalized beyond the specific research context to the population (Yin, 2009, p. 43). In this study, external validity primarily concerns statistical inference, that is, whether the sample is representative of the population of international SMEs in Norway.

The external validity of this study can according to Bryman (2012, p. 61) be regarded as strong as the sample from which the data has been collected has been randomly selected. Additionally, the evaluation of the assumptions of linear regression and investigation of outliers in Section 4.3.4 further support statistical generalizability, as all assumptions are sufficiently satisfied. Two findings presented in Chapter 4 also supports generalizability of the results. Firstly, as there are small differences between

the individual regression models' explanatory power, R<sup>2</sup>, and the adjusted R<sup>2</sup> (see Section 4.2), the results indicate decent generalizability, as suggested by Field (2005, p. 188). Secondly, as elaborated on in Section 4.1, the sample characteristics of the sample are found to be similar to a previous sample of international Norwegian SMEs as well as to the characteristics and trends of the overall international Norwegian business sector. We therefore conclude that the results can be generalized to the population of international Norwegian SMEs.

Thus, the validity of the study overall is found to be satisfactory as it is in line with the principles suggested by Yin (2009, p. 40). To conclude on the assessment of the strength of the methodology of the study, the features investigated regarding replication, reliability and validity are found to contribute to increased quality. This implies that the quality of the methodology is sufficient to provide a credible interpretation of reality.

# Chapter 4 | RESULT

The results from the multiple linear regressions will be reported in this chapter, and compared to the hypotheses deduced from theory in Chapter 2 in order to provide material to answer the research question. Firstly, characteristics of the sample data will be presented. Thereafter, the results of the three regression models and the evaluation of the hypothesis for each resource and for risk will be outlined. Lastly, the explanatory power of the models will be discussed.

### 4.1 Sample characteristics

Table 16 shows the characteristics of the total sample of international Norwegian SMEs. The sample has a broad firm age distribution with companies established as early as in 1853, and up to 2004 when the survey was conducted. However, the median of 1982 indicates that the sample is skewed towards newer firms. The number of employees ranges from only one to 233, with a median of 29. Together with the median of turnover this reveals that the majority of firms are relatively small.

The sampled companies vary greatly in their degree of internationalisation. Some firms report no foreign sales in 2004, whereas others exclusively sell abroad. The average firm has entered 13 countries, but the median of six indicates that the sample is skewed towards the lower end.

Table 16: Descriptive statistics of the sample

Variable	Minimum	Mean	Maximum	Median	Std. deviation	N
Year of establishment	1853	1970	2004	1982	28	284
Number of employees (2004)	1	50	233	29	58	198
Total revenue (2004)*	0	84	1 310	35	141	256
Share of foreign sales (2004)	0 %	44 %	100 %	40 %	34 %	244
Number of countries entered	0	13	160	6	19	268

<sup>\*</sup> currency quoted in million NOK

Similar sample characteristics are found for a sample from 1997 studied by Aspelund and Moen (2005) on the same population of international Norwegian SMEs. This strengthens the representativeness of the sample, and permits comparability of the sample to other survey data on the same population.

Figure 5 further displays the average international revenue of the sample from 2004 to 2009. In line with the overall trend in Norway (Statistics Norway, 2012), the sample firms' international results display a high growth from 2004 to 2008, with a decline in 2009. The decline is in line with what is expected due to the financial crisis in 2008 (European Commission, 2012). Thus, the sample shows similar development as the population from 2004 to 2009.

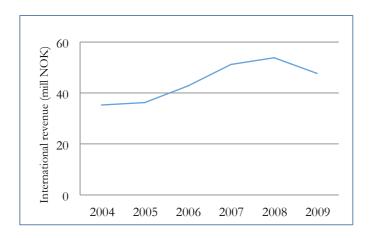


Figure 5: Average international revenue for the sample firms, 2004-2009

# 4.2 Regression results and hypotheses evaluation

In the following, the results from the three multiple regression models will be presented, and the hypotheses will be evaluated. The individual hypotheses will be evaluated using the significance scale in table 17. In line with the approach applied in previous research (e.g. Knight & Kim, 2009), significance levels of 0.10 and below indicate that the variable, or resource, in question significantly influences performance, whereas variables with a significance level above 0.10 are defined as having a non-influential relation to performance. To separate the hypotheses for each of the three regression models, the hypotheses of Market establishment performance, Market position performance and International revenue growth performance will be denoted with a, b and c, respectively.

The results for Market establishment performance, Market position performance and International revenue growth performance are shown in tables 18, 19 and 20, respectively. For each independent variable that has gradually been added (see Section 3.4.1), the tables display standardised beta values and significance levels. Additionally, the change in R<sup>2</sup> and the associated significance level of each block is reported, illustrating how the explanatory power of the model changes when more blocks are added. The final regression results for beta values, significance levels and R<sup>2</sup> are found in the last column. Additionally, a more detailed presentation of the SPSS regression output for all models is found in Appendix E.

Table 17: Scale for hypothesis assessment

Significance level	Hypothesis assessment
p < 0.01	Hypothesis is strongly supported/contradicted
p < 0.05	Hypothesis is supported/contradicted
p < 0.10	Hypothesis is moderately supported/contradicted
p > 0.10	Hypothesis is rejected

# 4.2.1 Market establishment performance regression results

Several factors are found to significantly influence Market establishment performance, and the results for the regression model are shown in table 18. The value of R<sup>2</sup> indicates that 36.2 % of the variation in Market establishment performance is explained through the model. As the adjusted R<sup>2</sup> of 30.6 % is relatively similar to R<sup>2</sup>, generalizability for the model to the Norwegian population of international SMEs can be assumed, according to Field (2005, p. 188).

Table 18: Market establishment performance: Standardised coefficients for the independent variables

Block	Variable	Standardised Beta						
1 Control variables	Company size	0.152*	0.109	0.113	0.114	0.039	0.029	0.017
	Company age	-0.171**	-0.142*	-0.142*	-0.137*	-0.138*	-0.157**	-0.138*
2 Strength of value	Product competitive advantage		0.274***	0.272***	0.260***	0.157*	0.146*	0.108
proposition	Innovation focus		-0.106	-0.107	-0.108	-0.104	-0.099	-0.065
3 Financial sufficiency	Financial sufficiency			-0.015	-0.018	-0.015	-0.01	0.000
4 Value of human capital	Employee dedication and efficiency				0.054	-0.029	-0.036	-0.104
5	International vision					0.280***	0.204**	0.174**
International orientation	International commitment					0.268***	0.276***	0.180**
	Intermediary competencies						0.127	0.134*
6 Network orientation	Extent of network						0.011	0.102
	Cooperation orientation						0.028	0.016
7 International	Market communication							0.317***
marketing strength	Value chain coordination							-0.027
	R <sup>2</sup> change	0.039**	0.061***	0.000	0.003	0.166***	0.024	0.070***
	R <sup>2</sup> accumulated	0.039	0.100	0.100	0.103	0.269	0.293	0.362
	Adjusted R <sup>2</sup>	0.306						
	N	160						

<sup>\*:</sup> p<0.1, \*\*: p<0.05, \*\*\*: p<0.01

Evaluating the hypotheses for the block Strength of value proposition, neither *product* competitive advantage nor innovation focus affect Market establishment performance significantly. These results reject what is hypothesised in theory (H1a and H2a rejected). Similarly the two next blocks, financial sufficiency and employee dedication and efficiency, have no explanation power for Market establishment performance and thereby reject the hypotheses. This is underlined by their insignificance as well as the values of R<sup>2</sup> change being 0.000 and 0.003, respectively (H3a and H4a rejected).

However, as expected, the block containing International orientation positively and significantly affects Market establishment performance. This block shows the highest increase in R<sup>2</sup> when added, with both *international vision* (p<0.05) and *international commitment* (p<0.05) showing positive influence (H5a and H6a supported), indicating that International orientation is an important predictor for Market establishment performance.

When it comes to the Network orientation, the block's total influence on performance is insignificant. Still, *intermediary competencies* (p<0.10) significantly influences Market establishment performance (H7a moderately supported), and it is the insignificance of *extent of network* and *cooperation orientation* that lead to the insignificant influence of this block (H8a and H9a rejected).

The last block comprising International marketing strength significantly influences Market establishment performance. However, only *market communication* (p<0.01) positively affects the performance dimension significantly (H10a strongly supported). The influence of *value chain coordination* is insignificant (H11a rejected).

The results also reveal a combination effect in the regression output. *Intermediary competencies* has no initial influence on Market establishment performance, but becomes significant after adding the block International marketing strength. This indicates that in order for *intermediary competencies* to significantly affect Market establishment performance, firms need to have sufficient International marketing strength as well.

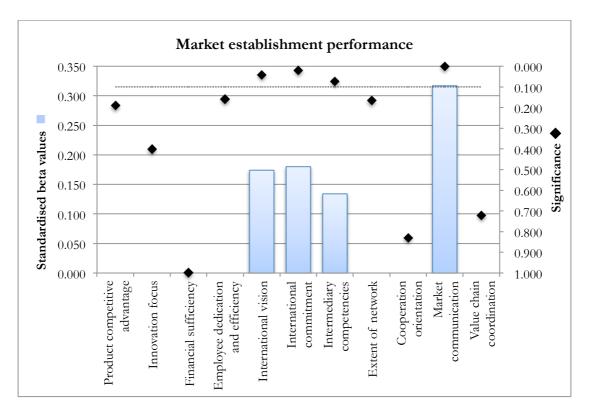


Figure 6: Standardised beta values and significance levels of independent variables on Market establishment performance

Figure 6 illustrates the relative influence of each significant predictor on Market establishment performance. The blue columns correspond to the left axis and show the standardised betas that are found to be significant. The black diamonds correspond to the inverted axis to the right and represent the significance level for all resources. The dotted line illustrates the lowest significance level in this study of 0.10, as according to table 17. *Market communication* is clearly the most influential factor, followed by *international commitment* and *international vision*.

### 4.2.2 Market position performance regression results

Table 19 shows the regression results for Market position performance. The R<sup>2</sup> of 39.4 % indicates a good model fit, and the similarity to the adjusted R<sup>2</sup> of 34.0 % implies model generalizability.

Table 19: Market position performance: Standardised coefficients for the independent variables

Block	Variable			Sta	ındardised F	Beta		
1 Control	Company size	0.266***	0.238***	0.218***	0.220***	0.150**	0.147*	0.112
variables	Company age	-0.055	-0.020	-0.023	-0.010	-0.014	-0.046	-0.054
2 Strength of value	Product competitive advantage		0.197**	0.207**	0.175**	0.081	0.110	0.082
proposition	Innovation focus		-0.016	-0.011	-0.014	-0.007	-0.039	-0.013
3 Financial sufficiency	Financial sufficiency			0.081	0.076	0.074	0.075	0.045
4 Value of human capital	Employee dedication and efficiency				0.140*	0.058	0.031	-0.040
5 International	International vision					0.247***	0.218**	0.168**
orientation	International commitment					0.286***	0.267***	0.181**
	Intermediary competencies						0.010	0.005
6 Network orientation	Extent of network						0.006	0.005
	Cooperation orientation						0.165**	0.122*
7 International	Market communication							0.197**
marketing strength	Value chain coordination							0.218***
	R <sup>2</sup> change	0.066***	0.035*	0.006	0.018*	0.160***	0.025	0.084***
	R <sup>2</sup> accumulated	0.066	0.101	0.107	0.125	0.285	0.31	0.394
	Adjusted R <sup>2</sup>	0.340						
	N	160						

<sup>\*:</sup> p<0.1, \*\*: p<0.05, \*\*\*: p<0.01

Examining the individual hypotheses reveals that none of the two Strength of value proposition variables, that is *Production competitive advantage* and *innovation focus*, affect Market position performance significantly. These findings are not in line with the

expectations (H1b and H2b rejected). The influence of *financial sufficiency* is also insignificant, and again this block is found to have the lowest impact on R<sup>2</sup> when added (H3b rejected). Additionally, *employee dedication and efficiency* has no significant influence on Market position performance (H4b rejected).

Considering the International orientation block, both of the factors, *international vision* (p<0.05) and *international commitment* (p<0.05), affect Market position performance positively as hypothesised (H5b and H6b supported).

However, the three factors in the Network orientation block have varying influences on Market position performance. Whereas *intermediary competencies* and *extent of network* have no significant influence (H7b and H8b rejected), *cooperation orientation* (p<0.10) positively influences the performance dimension as expected (H9b moderately supported).

The International marketing strength block has the second largest influence on Market position performance, with both *market communication* (p<0.05) and *value chain coordination* (p<0.01) showing significant influence. Value chain coordination is the most influential of the two predictors (H10b supported and H11b strongly supported).

The findings for Market position performance are summarized in figure 7, visualising the relative impact of each independent variable on performance. *Value chain coordination* is the most influential factor, followed by *market communication* and *international commitment*.

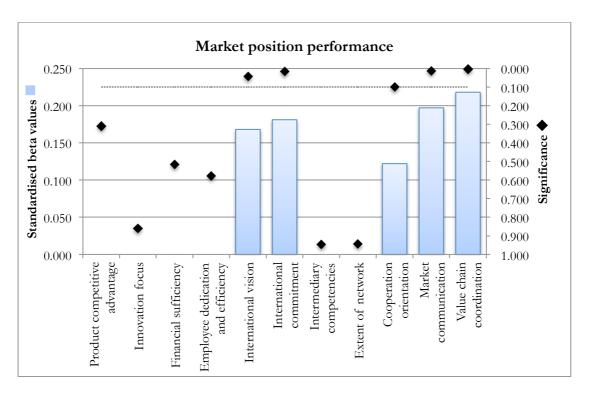


Figure 7: Standardised beta and significance levels of independent variables on Market position performance

# 4.2.3 International revenue growth performance regression results

Having looked at the regression models evaluating the subjective performance dimensions, the following part reports the results for the financial, objective performance measure of International revenue growth performance. Table 20 identifies several factors that significantly influence International revenue growth, and R<sup>2</sup> indicates that 43.6 % of the variance in International revenue growth can be explained by the model, and thus a good model fit. An adjusted R<sup>2</sup> of 34.9 % implies that the model is relatively, but not perfectly generalizable to the population of international Norwegian SMEs.

Table 20: International revenue growth performance: Standardised coefficients for independent variables

Block	Variable	Standardised Beta						
4.0	Company size	0.061	0.079	0.022	0.022	0.018	0.000	-0.019
1 Control variables	Company age	0.202**	0.193**	0.192**	0.194**	0.209**	0.307***	0.340***
	Risk	0.340***	0.358***	0.374***	0.374***	0.313***	0.373***	0.370***
2 Strength of value	Product competitive advantage		-0.138	-0.106	-0.107	-0.163	-0.224**	-0.232**
proposition	Innovation focus		0.086	0.059	0.056	0.011	0.104	0.086
3 Financial sufficiency	Financial sufficiency			0.178*	0.179*	0.197**	0.198**	0.251***
4 Value of human capital	Employee dedication and efficiency				0.012	0.016	0.084	0.080
5 International	International vision					0.201*	0.258**	0.259**
orientation	International commitment					-0.038	0.010	-0.059
	Intermediary competencies						-0.033	-0.020
6 Network orientation	Extent of network						-0.071	-0.080
	Cooperation orientation						-0.387***	-0.391***
7 Inte <del>r</del> national	Market communication							0.215**
marketing strength	Value chain coordination							-0.174*
	R <sup>2</sup> change	0.185***	0.015	0.028*	0.000	0.026	0.143***	0.039**
	R <sup>2</sup> accumulated	0.185	0.200	0.228	0.228	0.254	0.397	0.436
	Adjusted R <sup>2</sup>	0.349						
	N	105						

<sup>\*:</sup> p<0.1, \*\*: p<0.05, \*\*\*: p<0.01

The relationship between the Strength of value proposition block and International revenue growth is not as hypothesised. Product competitive advantage (p<0.05) influences International revenue growth significantly, however, in the opposite direction of what

is proposed (H1c contradicted). *Innovation focus*, on the other hand, shows no significant influence on International revenue growth (H2c rejected).

As expected, *financial sufficiency* (p<0.01) influences International revenue growth significantly. The relationship is strong and positive (H3c strongly supported). Employee dedication and efficiency, however, does not have significant influence on International revenue growth (H4c rejected). The insignificance of this block is also seen by its contribution of 0.000 to R<sup>2</sup> change.

For the International orientation block, mixed support is found for the hypothesised relations. Whereas *international vision* (p<0.05) shows a positive influence on International revenue growth performance (H5c supported), the influence of *international commitment* is insignificant (H6c rejected).

Looking at the Network orientation of the firms, results are intriguing. Overall, the block has the largest impact on R<sup>2</sup>, disregarding the control variables block, but the influence is not as expected. *Intermediary competencies* and *extent of network* has no significant influence on International revenue growth (H7c and H8c rejected), the influence therefore stems from *cooperation orientation* (p<0.01) only. However, this relationship is strongly negative and in the opposite direction than expected (H9c strongly contradicted).

The final block of International marketing strength significantly contributes to the model. However, the two factors in this block affect International revenue growth in opposite directions. Whereas *market communication* (p<0.50) shows significant positive influence in the way theory proposes (H10c supported), the influence of *value chain coordination* (p<0.10) is found to be significantly negative (H11c moderately contradicted).

International revenue growth is the only regression model having independent variables, or resource, influencing performance negatively. Table 20 also reveals several combination effects as blocks are added. *Product competitive advantage* turns significant as the block Network orientation is added, indicating that coexistence of these factors is needed in order for the previously insignificant variable to affect performance. Additionally, *financial sufficiency* increases its significance both as the block International orientation and International marketing strength are added. Further, *international vision* provides a better explanation for International revenue growth performance when Network orientation is added.

The relative importance of the significant variables is found in figure 8 displaying the respective significance levels. *Cooperation orientation* is found to be the most influential resource on International revenue growth performance, although having a negative impact. It is followed by the positive influences of *international vision* and *financial sufficiency*.

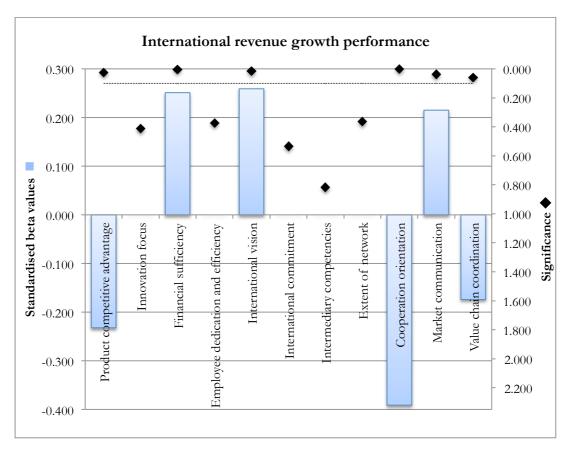


Figure 8: Standardised beta and significance levels of independent variables on International revenue growth performance

### The effect of accounting for risk

Table 20 also displays the impact of risk on International revenue growth performance. The results show that risk (p<0.01) significantly and positively influences International revenue growth when added, and remains highly significant when all the other blocks are included in the model (H12 strongly supported). This implies that risk greatly affects the international performance of firms.

### Impact of the late 2000's financial crisis

As discussed in Section 2.2.1, objective, financial performance measures do not have the same ability as subjective measures to adjust for changing market conditions when measuring performance. During the time period of interest for this study, 2004 to 2009, the late 2000's financial crisis commenced, leading to high external uncertainty and a downturn in international business. The crisis heavily affected the economic results of many international firms in 2009 (OECD, 2009b), and as seen in figure 5, the overall downturn in international revenues in 2009 indicates that international Norwegian SMEs were also affected by this crisis.

Therefore, a regression model for the period 2004 to 2008 has also been run in order to control that the results are not strongly influenced by the crisis, hence, that the identified significant performance determinants for International revenue growth are valid in non-crisis times as well. The results for the 2004 to 2008 regression model are

found in Appendix E and only where the results deviate from the original 2004 to 2009 model will be commented on in the following.

Comparing the results for the two regression models, it is the only role of International marketing strength that seems to change during the crisis. From being insignificant in the period from 2004 to 2008, both *market communication* and *value chain coordination* show significant influence on International revenue growth in the period 2004 to 2009. This indicates that as the crisis hit the international business markets, having efficient *market communication* became more important, whereas effective *value chain coordination* was deteriorating. For the rest of the independent variables, the results for the periods 2004 to 2008 and 2004 to 2009 are nearly identical.

# 4.2.4 The effect of control variables in the regression models

As mentioned in Chapter 3, company age and company size have been included as control variables in the regression models. As seen in table 18, 19 and 20, company age is found to have significant influence in two of the three performance models, that is, Market establishment performance (p<0.10) and International revenue growth performance (p<0.01). Company size, however, does not influence any of the performance dimensions significantly. Consequently, experience and resources, terms that are linked to the age of a firm (see Section 3.3.3), are indeed influential for the international performance of firms.

# 4.3 Evaluation of regression models

In the following, the applicability of the regression models to describe what influences international performance will be considered by assessing the explanatory power of the models, as well as examining whether alternative models can provide a better explanation for some resources.

# 4.3.1 Explanatory power of regression models

The explanatory power of the individual regression models reports the conceptual model's applicability to evaluate what drives performance. In this study, the explanatory power, R², lies between 36.2 % and 43.6 %. This range represents the percentage of variation in the performance dimensions that can be explained by the independent variables of the model. Comparing these results to similar studies², reporting explanatory power of 10 % to 36 %, implies that the explanatory power of the conceptual model in this study is in the upper range of what comparable research has found. By also comparing the adjusted R², which is adjusted for sample size and number of variables in the models (Field, 2005, p. 172), the results still appear to be solid. In this study the values of the adjusted R² are between 30.6 % and 34.9 %

Wiklund and Sheperd (2005) conclude with a R<sup>2</sup> of 35 % and adjusted R<sup>2</sup> of 30 %, using seven variables to predict how an entrepreneurial orientation improves firm performance.

<sup>&</sup>lt;sup>2</sup> Madsen (1989) found R<sup>2</sup> ranging from 21 % to 36 % and adjusted R<sup>2</sup> of 19 % to 34 %, using four variables in his study of success factors in exporting. In a similar study Kaleka (2002) reports adjusted R<sup>2</sup> ranging from 10 % to 20 % using eight predictor variables. Studying the impact of dependency on performance Miles et al. (1999) used two predictors to obtain an R<sup>2</sup> of 20.2 % and adjusted R<sup>2</sup> of 18.7 %. Lu and Beamish (2001) report R<sup>2</sup> up to 13.9 % and adjusted R<sup>2</sup> of 11.5 %, using 17 predictors to estimate the effect of internationalisation on firm performance. Batjargal (2003) reports an R<sup>2</sup> of 24 % using 14 variables to predict performance, whereas

whereas others report 13.9 % to 34 %. Overall, this suggests that the model has an acceptable explanatory power within this field of research, and that it is highly descriptive for the international performance of SMEs.

### 4.3.2 Alternative model relations

Running the regression models, several of the anticipated relationships between independent variables and the performance dimensions were found to diverge from what was hypothesised. Although the basic assumption for the multiple regression is a linear relationship between independent variables and performance dimensions (see Section 3.4.1), non-linear relations could potentially exist for the variables turning out to be insignificant. However, the inference of curvilinear relationships should still be based on theoretical propositions. Hence, based on the theory in Chapter 2, *innovation focus* and *extent of network* can be proposed to have a linear or a quadratic relationship to performance.

Innovation focus is found to be insignificant for all of performance dimensions. Yet, the variable is measured by the share of revenue invested in R&D, from 0-100 % and investing all income in R&D is unlikely to create superior results, as it will lead to insufficient capital for other functions in the firm. This indicates that a linear relationship between innovation focus and the performance dimensions may be incorrect, and that a quadratic relation is more plausible. Similarly, in Section 2.3.2 we see that theory presents different views of what the proper extent of network should be. Thus, a quadratic relation may be assumed for this variable as well, where the performance benefit of adding more of the independent variable increases diminishingly until a certain point where the influence declines and may even turn negative.

Therefore, new regression models for all three performance measures implementing a quadratic term of *innovation focus* and *extent of network* were run, as explained in Section 3.4.1. However, in all models the influence of the resources remained insignificant implying no quadratic relationships between the variables and the performance dimensions. This strengthens the perception that these variables have insignificant influence on international performance, as found in the linear model. The coefficients from the regression output with quadratic variables added are presented in Appendix F.

### 4.4 Hypothesis conclusions

Conclusively, this chapter has presented the results from the multiple regression analyses and evaluated the hypotheses from Chapter 2 by identifying what internal resources significantly influence firm performance. A summary of these findings is displayed in table 21 and figure 9. Table 21 indicates whether the individual hypotheses are supported, rejected or contradicted for the respective performance dimension. As all relationships between resources and performance were hypothesised to be significantly positive, the green check marks indicate a significantly positive relationship, the blue crosses a non-significant relationship and the orange minuses a significantly negative relationships contradicting the theoretical propositions. The significant relationship between risk and International revenue growth performance is also denoted with a green check mark.

Table 21: Summary of hypothesis conclusions

	Hypothesis	Market establishment performance	Market position performance	International revenue growth performance
Н1	SMEs with a product advantage compared to competitors have higher international performance.	×	×	-
Н2	SMEs investing in product innovation have higher international performance.	*	*	×
Н3	SMEs with sufficient access to external financing resources have a higher international performance.	×	×	✓
H4	SMEs with highly dedicated and efficient employees have higher international performance.	×	×	×
Н5	SMEs with a strong international vision have higher international performance	✓	✓	✓
Н6	SMEs with high commitment towards the international operations have higher international performance.	✓	✓	×
Н7	SMEs with a strong and competent network have higher international performance.	✓	×	×
Н8	SMEs with an extensive network have higher international performance.	×	×	×
Н9	SMEs with a strong cooperation orientation have higher international performance.	×	✓	-
H10	SMEs with effective market communication resources have higher international performance.	✓	✓	✓
H11	SMEs with efficient value chain coordination have higher international performance.	×	✓	-
H12	Risk significantly influences international performance of SMEs.			✓
Н	= Hypothesis			

H = Hypothesis

✓ = Hypothesis supported

= Hypothesis rejected

= Hypothesis contradicted

Figure 9 presents the identified relations between resources and the respective performance dimensions. The non-significant relations are excluded to provide a clearer illustration of what ensures high international performance for SMEs. Green lines indicate supported hypotheses and thereby resources influencing the individual performance dimension positively. Orange lines display the contradicted hypotheses implying a negative influence of the resources. The summarised results illustrate a threefold answer to the research question of this study, as each performance dimension is associated with different resources. These results will be further elaborated on in the following chapter, Discussion.

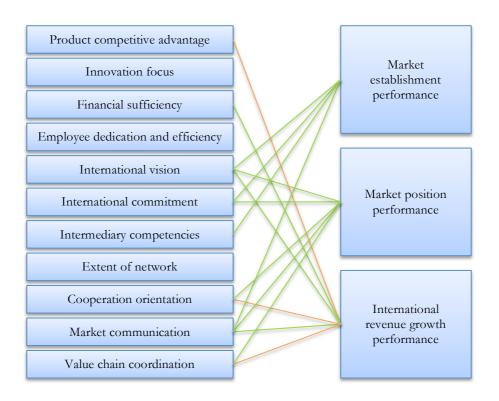


Figure 9: Identified relations between resources and performance

# Chapter 5 | DISCUSSION

The results from the multiple regression analyses and the theoretical background serve as the context for discussing the research question in this study. In the following, the research question will be answered before the implications for theory and for managers will be elaborated on. Finally, the limitations of the study and suggestions for further research will be presented.

# 5.1 Answering the research question

The results from Chapter 4, displayed in figure 9, imply that there is a threefold answer to our research question, since different resources influence each of the three performance dimensions in this study. Consequently, the internal factors ensuring high international performance for SMEs appear to differ depending on the performance dimension studied, and thereby also on the phase in the internationalisation the firms are focused on.

For Market establishment performance, the results show that firms holding a strong international vision, have high international commitment, solid intermediary competencies and efficient market communication are likely to perform better than firms with limited access to these resources in their resource base. For Market position performance, some, but not all, of the same resources are found to be significant. The results indicate that there is a high probability that strong international vision, international commitment, cooperation orientation, market communication and value chain coordination can contribute to enhanced Market position performance. Regarding International revenue growth performance, the results show that firms scoring high on this performance dimension are likely to have financial sufficiency, strong international vision and efficient market communication.

Thus, SMEs should focus on the identified resources required for their particular performance goal to ensure high international performance, without neglecting other resources that are necessary for the overall functioning of the firm.

# 5.2 Implications for theory

Congruencies and discrepancies between the results and the hypothesised theoretical relations, leading to the threefold answer to the research question, allow for new understanding of the international performance of SMEs. This has provided four firm level implications on the international performance of SMEs for theory.

Firstly, two resources, *international vision* and *market communication* appear to be vital to achieve any type of international performance. Current theory has not fully embraced these resources' superior importance and we will therefore investigate what characteristics make these resources more applicable than others. Secondly, different resources are found to influence the various performance measures, underlining the importance of theory to be aware of how resources affect performance. Whereas several resources are found to affect the performance dimensions positively, some also appear to have negative influence. In order to provide deeper insight to theory, we will examine the relations between the specific recourses and particular performance dimensions. Thirdly, unlike what was hypothesised from theory, some resources show no influence on any of the performance dimensions and seem to be

irrelevant for explaining international performance differences between firms. To understand this result that is challenging current theory, we will investigate the resources further. Fourthly, the results indicate that risk is a factor of significant influences for the international performance of firms. The implication of this finding for international marketing theory will be elaborated on. These four implications for theory will be further discussed in the following.

# 5.2.1 International vision and market communication show superior influence on international performance

The first implication for theory is based on the finding that *international vision* and *market communication* positively influence all three international performance dimensions, as shown in figure 9. This implies that these two resources ensure high international performance regardless of what phase of internationalisation the SMEs are in, making them the two most applicable resources of this study. Their superior influence and applicability compared to other resources is not fully acknowledged by current theory and the reasons for this will therefore be further examined in the following.

### International vision

The superiority of international vision leads to new insights for theory. Although some previous research (e.g. Knight & Kim, 2009; Javalgi et al., 2011) has found international vision to influence the international performance for all types of SMEs, the general perception of the entrepreneurial Born Global literature is that international vision is a unique performance enhancing trait of Born Global firms (Oviatt & McDougall, 1994; Knight & Cavusgil, 2004), that differentiate them from other types of firms (Moen, 2002). Contrary to this, our results indicate that international vision is not a characteristic unique to successful Born Global firms, but rather a resource likely to be held by all types of successful SMEs. In order to validate this notable finding, we investigated various statistical correlations by utilising the fact that Born Globals are characterised as early internationalisers, as according to Gabrielsson and Kirpalani (2004). The correlations between time to internationalise and performance as well as time to internationalise and international vision were produced to check that not all top performers of the study are Born Globals, and to investigate whether international vision is a trait solely related to Born Global firms. As no significant correlations were found (see Appendix G), the notion of international vision not being a resource differentiating Born Globals from other SMEs is supported. This implies that no matter the background and type of SME, international vision is of major importance for international performance, providing new insights to the entrepreneurial literature.

Additionally, the significance of *international vision* provides support for the management by values perspective. The perspective's emphasis on using firm vision and values as a guiding and leadership tool corresponds well with the importance of *international vision* found in this study. In line with the suggestion of Dolan and Garcia (2002) and Buchko (2006), management by values seems to be especially effective for firms operating in complex environments such as in international markets as the clear vision makes sure that employees know what to do when facing the unknown situations of the challenging international market place. Thus, as management by values underlines the importance of *international vision*, we argue that it is an effective management framework to ensure international performance.

However, what are the characteristics of *international vision* making it so valuable and more applicable than other resources? Examining the nature of various resources as well as looking at the tenet of the resource-based view, two key reasons are found.

Firstly, *international vision* is characterised by having long-term effects on the international performance and direction of firms. As mentioned by Burack (1991), the company culture and vision of today influence and constrain a firm for several years. It is therefore crucial for firms to have a culture and vision adapted to its performance goals and future actions, as they are decisive of what the firm is able to accomplish, in accordance with De Wit and Meyer (2010, p. 599-600). Thus, we argue that the long-term benefits and consequences of today's vision is the first reason why firms that have managed to create the desired *international vision* perform better than others.

Secondly, by utilising the VRIN framework of the resource-based view to assess whether resources are valuable, rare, inimitable and non-substitutable (Barney, 1991), it appears that the characteristics of international vision enable superior international performance through creation of competitive advantage. Firstly, Mahoney and Pandian (1992) define resources as valuable if they enable firms to employ valuecreating strategies. The international vision of a firm is highly decisive of what a firm will and can accomplish (Buchko, 2007), and we therefore argue that the international vision is a valuable resource as it constantly directs the firm towards value creating ventures and the overall goal of the venture, as described by Day (1994). Additionally, international vision can be considered a rare resource as according to Barney's (1991) definition of a rare resource as not being widely held by firms. Most firms have some kind of vision stated in their policy or guidelines, however, few firms employ the vision actively (De Wit & Meyer, 2010, p. 597). Thus, we regard a well-functioning international vision as rare. Further, in assessing whether international vision is an inimitable resource, the nature of the resource needs to be taken into account. International vision is an intangible resource, which according to Knight and Kim (2009) is much harder for competitors to reproduce than tangibles. Additionally, it is a lengthy and hard process to establish an effective and desired international vision (Price & Chahal, 2007), indicating that the resource is path dependent. As it is also socially complex, the international vision of firms is hard to copy and replicate for others. We therefore argue that it is an inimitable resource. Considering nonsubstitutability, Dolan and Garcia (2002) discuss how values and vision as leadership tools can be exchanged by detailed instructions and objectives. This indicates that the function of international vision can be replaced by alternative measures in the firm, and consequently we do not regard international vision to be a non-substitutable resource.

In sum, *international vision* is found to be valuable, rare and inimitable, and hold three of the four VRIN characteristics. As Barney (1991) proposes, resources only need to be valuable and rare in order to create temporarily competitive advantage. This indicates that the superiority of *international vision* is related to its long-term effects and its unique characteristics making it a potential source of competitive advantage for SMEs.

### Market communication

Market communication is the second resource showing significant, positive influence on all performance dimensions. The resource was hypothesised to influence international performance positively, thus the finding supports previous literature and research (e.g. Day, 1994; Kaleka, 2002; Morgan et al., 2009). However, its superiority compared to other resources is intriguing.

As defined in Chapter 4, *market communication* is a measure of two-way communication assessing a firm's provision of information to the market as well as the information gathered from customers. The communication from the firm to the market creates value by enabling promotion of products to customers. Additionally, plentiful information and extensive services to the market reduce the perceived risk for customers when purchasing the firm's product, and increases their willingness to buy (Fetherstonhaugh, 2009). Information from the market to the firm is valuable for the firm and its performance, as information about customers is crucial in order to get to know the market properly (Morgan et al., 2009). This implies that *market communication* contributes to value-creating processes in the firm.

However, by applying the VRIN framework (Barney, 1991), the above-described characteristics of *market communication* alone do not seem to be sufficient to create a competitive advantage for SMEs. Although the two-way *market communication* is valuable, and its intangible nature and dependence on experience and human relations may make it hard to imitate, it is neither a rare nor non-substitutable resource as most firms have established a functioning way to communicate with market. Resources that are not rare, cannot be a source of competitive advantage (ibid), indicating that the two-way Market communication is not a potential source of competitive advantage.

As mentioned in Section 2.3.2 several theorists (e.g. Cohen & Levinthal, 1990; Matusik & Hill, 1998; Zahra & George, 2002; Malhotra et al., 2005) argue that the competitive advantage of market communication lies in the absorptive capacity of the firm, that is the ability to acquire, assimilate, transform and exploit the market information. However, the operationalization of market communication used in this study does not capture all the functions of absorptive capacity explicitly (see Section 3.3.3). Due to the lack of suitable measures in the survey data, the market communication factor does not explicitly consider the ability of absorptive capacity to apply the acquired information, that is, the assimilation, transformation and exploitation functions of the absorptive capacity. Only the acquisition function is measured through the receiving part of the two-way communication measure. Still, its great influence on international performance indicates that it is highly probable to be a source of competitive advantage. We therefore argue that the market communication measure in this study can be seen as a proxy for the more comprehensive term of absorptive capacity, despite not measuring it directly. In the following, two findings related to market communication will be investigated more closely as they are found to provide further support for this notion. They also illustrate how market communication is valuable for the firm.

The first finding is related to the change in the influence of market communication on International revenue growth performance from 2008 to 2009. By comparing the 2004-2009 regression model with the model only taking the pre-financial crisis into account, that is the 2004-2008 model, market communication goes from being an insignificant influencer in 2004 to 2008 to significantly influence International revenue growth performance from 2004 to 2009. By studying the characteristics of the absorptive capacity, we believe it is related to the change in market communication influence. As the crisis hit, uncertainty filled the international market place and several firms needed to alter their behaviour in order to survive. Efficient market communication is likely to have enabled firms to stay well informed during turbulent times, but as stated by Zahra and George (2002), the acquisition of information alone is not sufficient to provide competitive actions. Thus, firms keeping results up during the crisis must have been able to act appropriately on the information as well, and are therefore likely to have held all functions of the absorptive capacity including acquisition, assimilation, transformation and exploitation. Further, the absorptive capacity may have increased financial results as it permits firms to make more accurate predictions about the future, as suggested by Cohen and Levinthal (1990) as well as it makes firms adapt more easily to changing market conditions, in line with Zahra and George (2002). Consequently we believe that the four functions of the absorptive capacity are what successful firms were able to exploit during the financial crisis. As noted by Zahra and George (2002), only by having developed the absorptive capacity in one period, firms are able to effectively accumulate and exploit knowledge in the next, and this explains the advantage for the firms already holding this resource as the financial crisis hit. Consequently, we argue that the increased importance and value of market communication for performance during the crisis is related to it being a proxy of absorptive capacity.

The second finding supporting that *market communication* is a proxy for absorptive capacity is the existence of combination effects between the International marketing strength block, which contains the *market communication* variable, and other resource variables. Specifically, the results display combination effects between International marketing strength and *intermediary competencies* in the Market establishment performance model, and International marketing strength and *financial sufficiency* in the International revenue growth regression model. The combination effects are in line with Zahra and George's (2002) work stating that the absorptive capacity influences the creation and benefits of other organisational resources. This gate-keeping function of the absorptive capacity affects what actions will take place in the firm (Beckett, 2008). Hence, the dependence between the block containing *market communication* and other variables gives further support to *market communication* being a proxy for absorptive capacity, and shows how the absorptive capacity is able to affect the international performance of firms significantly.

Consequently, we argue that it is the absorptive capacity of the firm that causes firms with high scores on *market communication* to perform better than others. As stated by Matusik and Hill (1998) the absorptive capacity holds VRIN characteristics which provides it with the potential of being a source of competitive advantage of firms. Although the unique characteristics are therefore linked to the part of the two-way communication measure concerning information received from the market, we do

not dismiss the value of the other part of *market communication*, that is, providing information to the market, but contend that the superiority of the resource is largely caused by the absorptive capacity holding VRIN traits.

#### 5.2.2 Performance aims determine resource requirements

The second implication for theory drawn from the answer of our research question is that different resources influence various performance dimensions, both positively and negatively. This implies that researchers must be aware of how resources affect performance as well as be specific on what performance dimension recommendations are provided for. In the following we will investigate the relation between the influential resources and the three different performance dimensions.

## Resource base required to increase Market establishment performance

As found in the analysis in Chapter 4 and shown in figure 10, Market establishment performance can be increased by ensuring good *intermediary competencies*, *market communication*, *international commitment* and *international vision*.

As elaborated on in Section 2.2.2, entering a new foreign market requires information about the market situation to enable management to make sound decisions about the establishment. Examining the resources found to improve Market establishment performance, we argue that they have important characteristics necessary for international venture establishment, as they together constitute good sources to information acquisition, which reduces uncertainty about the new market, as well as assist the firm in absorbing and acting upon the information appropriately.

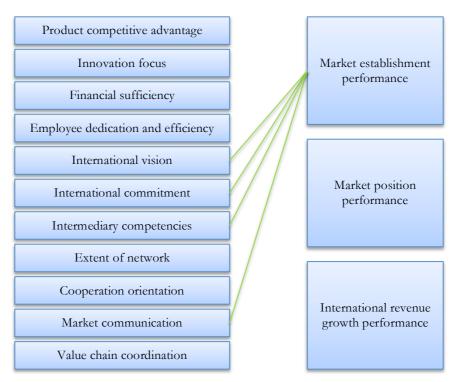


Figure 10: Resources enhancing Market establishment performance

Firstly, intermediary competencies and market communication are likely to help the firm acquire valuable information both externally and internally. Externally, having competent intermediaries may provide the firm with valuable local expertise and reduce the information asymmetry experienced compared to local competitors (Sapienza et al., 2005). The qualified intermediaries can also help filter out irrelevant noise (Holmen & Pedersen, 2003). As high quality intermediaries have a good overview of the market situation and know the customers well, they will be able to provide the firm with unique information compared to intermediaries with lower quality. Intermediary competencies is found to only influence this performance dimension, and this further confirms that the value of having good intermediaries lie in the quality of information they provide, as proposed by Ellis and Pecotich (2001). However, intermediary competencies only turns significant as the Marketing strength block is included (see Section 4.2.1), which may indicate that market communication is needed in order to reap the information advantages of the intermediaries. At the same time, the insignificance of extent of network and cooperation orientation on Market establishment performance proposes that when it comes to network resources it appears to be the quality of a firm's intermediaries that is decisive of the information obtained. Internally, effective market communication is likely to contribute to Market establishment performance by assisting in information acquisition, as described in Section 5.2.1.

Additionally, the results confirm that merely access to information is not sufficient, but that the firms need to be able to properly exploit the information as well to increase Market establishment performance. This is seen in that *international commitment* and *international vision* are significant contributors of this performance dimension, in addition to *market communication*. As established in Section 5.2.1, *market communication* or its proxy as the absorptive capacity of the firm enhances performance in that it enables the firm to appropriately act upon the information. Additionally, we contend that the influence of *international commitment* is related to ensuring sufficient investment of economic and human resources in the processing and interpreting the information acquired. As suggested by Malhotra and Hinings (2010), employees are needed to evaluate information that is often coloured by foreign cultures and languages, before it can be disseminated into the company. By also having a clear *international vision*, the employees will more easily be able to extract information that is vital for the firm's overall goals for the foreign market, and exploitation will be directed towards developing a tailored strategy for market establishment.

The significant resources of Market establishment performance illustrate how the successful firms utilise both internal and external information acquisition and utilisation to reduce the uncertainty related to operating internationally, and to make sound decision and strategies when the firm is getting established in a foreign market.

# Resource base required to increase Market position performance

In order to increase Market position performance, the results suggest that firms should have a strong *international vision*, high *international commitment* and a *cooperation orientation* as well as effective *market communication* and *value chain coordination*. These relations are shown in figure 11.

After firms have entered a new market, capturing a solid position is often their main objective (see Section 2.2.2). The Market position performance measures how successful a firm has been in creating a solid market position with regards to market share, image and perceived sales. Overall, we argue that the resources found to significantly influence Market position performance fulfil three functions that are crucial to ensure a solid market position abroad. Firstly, the resources help firms understand the demands of the market, and how to fulfil these. Secondly, as firms are often dependent on others to fulfil some of the business functions abroad, the resources contribute to efficient collaboration with various players. Thirdly, the resources enable firms to direct the actual positioning in the market.



Figure 11: Resources enhancing Market position performance

Firstly, in order to identify the market demands, *international commitment* and *market communication* can be utilised to acquire and apply valuable information, as described for Market establishment performance. *Market communication* also helps firms know what they should offer to the market and how to do it, and *international commitment* can ensure that enough resources are invested in building a consistent image, helping the firm's visibility in the foreign market.

Secondly, small firms may be dependent on others to carry out some of their tasks abroad (Miles et al., 1999; Johanson & Vahlne, 2009). Seeing that both *cooperation orientation* and *value chain coordination* have significant influence, the results indicate that capturing a solid market position is the type of task that SMEs are dependent on others to fulfil. A *cooperation orientation* encourages firms to establish close ties to foreign firms, which may open for help from these firms to identify attractive customers (Batjargal, 2003), and thereby gain the desired position in the foreign market (Luo, 2002). This can boost their market positioning. Close cooperation with

partners also allows the core company to exploit the collaborators' existing network to create a stronger market position (Coviello & Munro, 1995). Considering the *value chain coordination*, effective coordination ensures well-organised production and dissemination of products into the foreign market. The significance of this resource indicates that this is vital in order to serve the customers efficiently and thereby increase the market position, as suggested by Cousins et al. (2008, p. 144-149).

Thirdly, the results show that an *international vision* is vital for Market position performance. As elaborated on in Section 2.2.2, a vision provides the direction for the firm and makes it easier for the firm to position itself properly in accordance with long term goals. In this way, firms having a clear *international vision* will know better what to do to create a strong, growing and sustainable position, in line with the directional function of vision as noted by De Wit and Meyer (2010, p. 600).

The results show how firms aiming to ensure a solid market position should focus especially on developing resources related to the International orientation and the International marketing strength of the firm, as all variables from these blocks increase the performance dimension. Additionally, studying the results for the two performance dimensions describing the firms' success in the first two phases of internationalisation, we see that International orientation is vital for SMEs wanting to establish a foothold and position themselves in a foreign market. This illustrates that firms need to be truly committed to and engaged in their international venture in order to succeed in the starting phases of internationalisation when financial returns are not necessarily high.

## Resource base required to increase International revenue growth performance

Contrary to the two other performance measures, International revenue growth performance is found to be influenced both positively and negatively by resources. Whereas *financial sufficiency* is required to enhance performance, in addition to the continuously necessary resources of *international vision* and *market communication*, the resources *product competitive advantage*, *cooperation orientation* and *value chain coordination* have negative influence on the performance dimension, as displayed in figure 12.

For some international firms, the most important aim is to ensure financial growth in the longer run, and reap the financial advantages of their market position. Our results imply that this can be achieved by having access to sufficient capital, which allow for investments, in addition to thorough knowledge of the market and a clear vision.

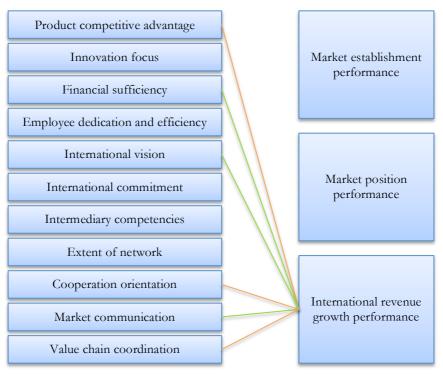


Figure 12: Resources enhancing International revenue growth performance

The significance of *financial sufficiency* on International revenue growth supports theory proposing that access to capital is crucial for SME growth (e.g. Wang & Ahmed, 2009). This result further provides intriguing findings on the relation between capital and performance for SMEs. Whereas financial sufficiency significantly influences International revenue growth performance, it is non-significant for the two other performance dimensions as seen in Section 4.2. This leads to key insights on what resources are needed for SMEs to finance their international activities. For Market establishment and Market position performance international commitment, which deals with how a firm distributes its internal resources, have significant influence. Thus, with no correlation between external capital and these performance dimensions, proper commitment of internal resources appear to be sufficient in order for SMEs to reach these performance goals. However, in order to achieve revenue growth over five years, SMEs appear to need external capital. This is in line with Zahra et al. (2000) suggesting that growth requires firms to expand, and in order to expand firms are normally dependent on external investors. It also supports Cooper et al. (1994) stating that financial sufficiency permits the firm to undertake more ambitious strategies that may generate greater results, and enabling the firms to meet the financial demands imposed by growth.

Additionally, the significant influence of *financial sufficiency* on International revenue growth from 2004 to 2009 indicates that the resource remained significant as the financial crisis hit. This supports previous research suggesting that financial sufficiency creates a buffer for random shocks (Batjargal, 2003) and provides the firm with financial slack to cope with new situations (Wiklund & Sheperd, 2005). *Financial sufficiency* also has combination effect with the International orientation block,

containing the significant variable *international vision*. This indicates that an *international vision* combined with *financial sufficiency* improves International revenue growth performance. We argue that this may be because the company knows better where to invest in order to earn revenues in the long run as to the *international vision* ensures that the company has a clear idea of their international aims and where they are heading.

The overall importance of *international vision* and *market communication* for performance is already elaborated on in Section 5.2.1. Similar to the other performance dimensions, it is vital to have the overall international goal in mind as well as be updated on the market trends for International revenue growth performance.

Contrary to what is hypothesised by current theory, three resources are found to influence International revenue growth performance negatively, providing new insights for theory. Firstly, the negative influence of product competitive advantage disputes the common understanding in marketing of the importance of the product offering (e.g. Barney, 1991; Slater, 1997; Kaleka, 2002). This is further underlined by the resource being non-influential for the two other performance dimensions. Yet, examining the literature and current trends, two possible explanations for the deteriorating effect on International revenue growth performance have been identified. For one, closer inspection reveals that some of the variables comprising the product competitive advantage factor can be indicative of a product's niche characteristics. Niche products demand more effort per delivery than standardised products and it is therefore more difficult to expand through scale advantages, limiting the firm's growth potential (Johnson & Arunthanes, 1995). As niche markets are also generally small further accentuates the limited growth opportunities. Secondly, as mentioned by Wiklund and Sheperd (2005), product life cycles are continuously shortening due to advances in technology, making it easier for competitors to replicate products faster. Thus, continuous expenditures to sustain the competitive advantage may not be recouped before the competitive advantage is lost, indicating that gaining an advantage might cost more than sales are able to recover.

Although cooperation orientation positively influenced Market position performance and is proposed to be indispensable for SMEs seeking growth (Lu & Beamish, 2001; Madsen et al., 2012), it seems that the costs of maintaining the cooperative arrangement over time is larger than the benefits obtained. As cooperative arrangements may negatively affect performance if troubled by agency problems (e.g. Bergen et al., 1992; Lee & Cavusgil, 2006), we believe the negative effect of cooperation orientation may be explained by agency theory. Over time, opportunism in the collaboration due to diverging objectives may lead to deteriorating the economic results, as described by Cuevas-Rodríguez et al. (2012). Lock-in effects and unnecessary costs may also occur, reducing the performance benefit of the collaboration, in line with Miles et al. (1998) and Gadde et al. (2003). We also believe Lee and Cavusgil's (2006) suggestion related to asset specificity is relevant for our results. They assert that firms selling advanced products, requiring intermediaries to be highly trained, may end up in a weaker bargaining position and get lower results, as they are dependent on the specific intermediary. As found in the pre-thesis work

(Jahren & Raa, 2012), several Norwegian SMEs offer advanced products, indicating that the asset specificity may account for parts of the negative influence.

Value chain coordination is also found to impact International revenue performance negatively. This is notable considering the positive influence of value chain coordination on Market position performance. We believe the negative effect is related to the challenge of adapting an existing value chain to changing market demands, as described by Christopher (2011, p. 284). As value chain coordination was non-significant in the 2004-2008 model and only turned significant in the model including 2009, the results may imply that SMEs with a well-established value chain before the financial crisis had problems adapting it in the turbulence stemming from the financial crisis. This may have led to the negative influence of the value chain coordination on revenues.

The results for International revenue growth indicate that resources that are enhancing for some performance dimensions are deteriorating for others. The results also imply that over time, inflexibilities in the resource base may occur, leading to companies getting stuck with suboptimal resources. However, the negative influence of firm resources is still unexpected compared to the common understanding in theory.

#### 5.2.3 Dissimilar to theoretical predictions some resources are non-influential

The third implication, addressing the non-influential resources in the study, also has importance for theory as it challenges current knowledge. Unlike what was predicted, three of the resources, *innovation focus*, *employee dedication and efficiency* and *extent of network*, are found to be non-influential for all of the performance measures, as displayed in table 21.

For *innovation focus*, the regression results indicate that there is no relationship, neither linear nor quadratic, between the resource and performance, although several theorists argue that innovation is crucial for performance (e.g. Knight & Cavusgil, 2004; Kaleka, 2002; Kraaijenbrink et al., 2010). Yet, examining the nature of innovation indicates that investments in R&D have a time lag before they influence performance, as the innovative products need to reach the market before they create economic returns (Coad & Rao, 2010). Accordingly, this might explain the absence of a clear relationship between R&D investments in 2004 and performance from 2004 to 2009.

The results also reveal that *employee dedication and efficiency* is found not to contribute to achieving any of the three types of performance, challenging current theory emphasising the value of employees for firm performance (e.g. Peteraf, 1993; Barney et al., 2001; Buchko, 2007). By further examining this unexpected result we find that it can be related to the local business conditions in Norway. According to Eurostat (2012), Norway is a high-cost country in which the employees will consistently meet high demands for efficiency in order to compensate for the high labour costs. We therefore argue that all companies in our sample are likely to have a rather high degree of *employee dedication and efficiency* regardless of their performance, and that this is therefore not a source for firms to distinguish themselves performance wise. Investigating the survey results, the mean value of *employee dedication and efficiency* is

found to be 5, indicating a quite high mean value, as the responses are measures on a Likert scale from 1 to 7 (see Appendix C), supporting this suggestion. It is also one of the highest mean values of the resources in the study.

The lack of influence of extent of network rejects the hypothesised relationship on a larger network increasing performance. Still, as seen in Section 2.3.2, the theory is not consistent in the proposals of the optimal extent of network with Gadde et al. (2003) proposing that the extent should be large to increase market power and performance whereas Wilkinson and Young (2002) suggest a narrower network to avoid dangers of cooperation. Additionally, Holmen and Pedersen (2003) argue that the network horizon should be wide, but not too wide as it may demand extensive coordination and resource usage. Although theorists agree that the network is important, it appears that the works of network theorists diverge on the topic of network width. This makes it challenging to predict an optimal extent of network from a theoretical viewpoint, and may explain why neither linear nor quadratic relations are found between extent of network and the performance dimensions in this study.

Thus, whereas the absence of influence of *innovation focus* and *employee dedication and efficiency* appear to be related to study-specific conditions, the results and investigation of *extent of network* imply that this is may be an unsettled topic within the network theory.

# 5.2.4 Risk significantly influences performance and should be taken into account in performance studies

The final implication for theory states that *risk* significantly influences International revenue growth performance, in line with the hypothesis based on financial theory. For theorists, this implies that risk should be included in future performance studies, and not left out as it is in most research within the international marketing field today, as noted by Watson and Robinson (2003).

High risk is related to high returns but also to substantial losses (Forlani & Mullins, 2000). The significance of *risk* therefore implies that performance studies where risk is not taken into consideration potentially provide flawed results, as highly influential performance points that are a result of high-risk activities may strongly influence the results. In accordance with the suggestion of Ballantine et al. (1993), we believe omitting risk from the analysis will lead to an incomplete and incorrect view of the business behaviour. Consequently, inclusion of risk in future performance studies, uniting principles from finance with the strategic performance literature is likely to provide more solid and valid findings on financial performance. Although some companies accept a higher risk to potentially gain higher performance, performance studies should be based on risk-adjusted measures to provide results and offer recommendations for managers that are not conditioned by risk.

#### 5.2.5 Final remarks on theoretical implications

Conclusively, the four implications have provided important insights for theory by increasing the understanding of resources and performance. The first implication regarding the superiority of *international vision* and *market communication* has shown that the characteristics of resources can explain their differing influence on performance. In accordance with the proposition of the resource-based view and the VRIN

framework (e.g. Barney et al., 2011), resources that are valuable and rare are likely to contribute positively to performance. The second implication supports previous theory recommending the use of several performance dimensions (e.g. Cavusgil & Zou, 1994; Kaleka, 2002; Madsen et al., 2012). Investigating several dimensions will provide a greater understanding of the actual performance of the firm, the relation between specific resources and performance dimensions, and the different resource requirements as the firm goes through different phases of internationalisation. This emphasises the importance of researchers to specify what performance dimension they are studying and providing recommendations for. The second implication also indicates that resources being enhancing for some performance dimensions can be deteriorating for others.

Additionally, the second and third implications have encountered results that are not in line with the expected hypotheses. Although the negative or non-existent influence of some of the resources can be explained by agency problems, current trends and study-specific conditions, several of the relations provide direct implications for theory, as they are unexpected or cannot be fully explained through current theory. The fourth implication for theory suggests that risk should be accounted for in future performance studies as it significantly influences performance. The hypothesis on risk was inspired by finance theory, implying that combining theoretical perspectives from different schools of thought can be a useful approach to further expand a field of research.

To synthesise, different theoretical perspectives have been deployed in this study to facilitate a broader understanding of the influence of the different resources on the specific performance dimensions. Looking at the theoretical implications, the applicability of the various perspectives can be assessed.

The resource-based view has proven to be an effective perspective to identify internal factors in the company, as it provides a clear distinction between the internal and external factors of the firm. By examining previous works and studies based on the resource-based view, several potential performance enhancing resources were identified, covering a broad range of firm resources. We therefore contend that the resource-based view was an appropriate starting point for the identification of resources in this study. Additionally, the unique resource characteristics described by the VRIN framework in the resource-based view have proved useful to understand why distinct resources contribute to superior international performance.

Concerning the entrepreneurial Born Global theory, the study results suggest that their perception of *international vision* falls short. Although the theory has truly embraced the importance of *international vision*, our results contend that Born Global theorists may be wrong in anticipating that this is a resource unique for Born Global firms. Nevertheless, the finding of *international vision* being a resource of great influence provide support for the applicability of the management by values view, and we therefore argue that ideas from the management by values view are highly applicable for international SMEs.

Regarding the applicability of the network theory, the study provides mixed support. The three network resources of the study, *intermediary competencies*, *extent of network* and *cooperation orientation*, are found to both positively and negatively influence as well as being non-influential for the three performance dimensions. These diverging findings imply that there is some inconsistency between the suggestions based on the network theory and our empirical results. Additionally, as mentioned in Section 5.2.3, we find that the theory on firms' extent of network is not consistent in itself, suggesting that the network theory could get more coherent. Regarding cooperation, the results also find agency theory applicable, as the problems described by the view seem to be explanatory for some of the drawbacks of network relations in this study.

# 5.3 Implications for management

In addition to providing implications for theory, the results of the study also offer valuable insights for managers of SMEs. The objective of this study is to identify what resources managers should develop to ensure high performance and how this can be done. As the resource-based view does not directly address the practical issue of obtaining resources, we will provide practical implications on this for managers.

Based on the answer to the research question, two main implications for managers are found. Firstly, managers should ensure that the company holds the two highly applicable resources *international vision* and *market communication*, as they are sources of competitive advantage and identified to be vital to achieve international performance in all three internationalisation phases described in this study. Secondly, managers need to adapt the rest of their resource base to their specific international performance aim and phase. In the following, practical implications regarding the specific resource and the various performance aims will be elaborated on.

# 5.3.1 Ensuring possession of highly influential resources

The first implication for managers is based on the finding that *international vision* and *market communication* hold some VRIN characteristics, making them contribute to superior international performance for all internationalisation phases and performance dimensions in this study. Recommendations for acquisition of the resources will be given in the following.

#### Obtaining international vision

International vision is a path dependent and socially complex intangible resource (see Section 5.2.1), which must be developed inside the firm. For SMEs, limited in tangible resources, international vision may be necessary to take the initiative to pursue opportunities abroad (Knight & Kim, 2009). However, as described by Dolan and Garcia (2002), the process of establishing an efficient vision is a challenging. Thus, to obtain a desired international vision we recommend the use of leadership tools from the management by values view as well as an early and continuous focus on vision.

To reap the advantage of the *international vision*, managers must ensure the employees actively apply the vision as a guiding tool for the daily business activities (Buchko, 2007). Involving employees in the establishment of the vision can ease this, which is in line with Day (1994) stating that the creation of an effective vision is best formed through collaboration between employees and management. The vision must encourage and inspire the individual goals of employees in order to create

performance benefits (Gordon, 2008). To help this process, managers should consider hiring employees with an interest for international business and foreign cultures. Additionally, employees' application of the vision in day-to-day activities is dependent on how their superiors apply it (Kotter, 2007), and managers must therefore actively demonstrate the vision themselves.

It is also crucial that managers establish the desired *international vision* as early as possible. Due to the long-term impact of the vision (Burack, 1991), this is needed order for the firm to be prepared for the challenges of the international market place. For managers of newly established SMEs that are seeking internationalisation in the future, the appropriate *international vision* should consequently be implemented from the very start to ensure a smooth internationalisation, in line with Aspelund and Moen (2005). Requiring all documents to be written in English or employing people with international experience can contribute to this. Managers of more mature firms wanting to ensure an *international vision* should firstly identify the current vision of the firm to evaluate whether it is in accordance with their international goals. If it is not, managers must conduct a cultural redesign of the firm by aligning the vision to the goal (Dolan & Garcia, 2002).

Managers must also realise that a perceived firm vision will be created whether the management actively navigates it or not (Gordon (2008). If no active guidance from the management is provided, a vision that may not align with the envisioned future will passively evolve. Therefore, in line with Buchko (2007), managers need to ensure that the desired vision is clearly stated and that creating this vision is an on-going process, which must allow for changing business conditions to be taken into account.

#### Obtaining market communication

Market communication is also an intangible resource requiring development within the firm. In order to obtain the resource, managers must create efficient routines, adapted to the individual markets, for informing as well as receiving information from the markets. As argued in Section 5.2.1, the competitive advantage of market communication lies in its absorptive capacity, and managers must therefore develop this capacity to acquire, transform, assimilate and exploit the market information within the firm.

To develop an absorptive capacity, managers must look to their employees. The absorptive capacity of a firm rests on the added absorptive capacities of the employees (Cohen & Levinthal, 1990), and to obtain this resource managers must continuously train the employees by updating them on relevant knowledge in the foreign markets and effective information processing procedures. By broadening its knowledge horizon, the firm has the potential to discover opportunities and threats it would not otherwise have seen, and hence adapt to the changes in the environment. In line with the proposal of Zahra and George (2002), managers should also hire people with the desired capabilities, for instance with a multicultural background, international experience or excellent communication and language skills.

Additionally, similarly to the development of the *international vision*, managers should strive to build an absorptive capacity as early as possible. Relevant prior knowledge is

needed to effectively assimilate and use new knowledge (Jansen et al., 2005), and developing an absorptive capacity early will therefore create the needed basis enabling the future knowledge acquisition and use of the firm.

#### 5.3.2 Adapting resources to international performance aims

The second implication for management states that managers must align the firms' resource base to the performance goals of the various international ventures. The implication emphasises the complexities and challenges with internationalisation for SMEs, and indicates that managers must clearly identify their firm's international performance goals and adjust the resource base as the objectives change during the various phases of internationalisation. In the following, specific implications for managers seeking each of the three performance dimensions will be given. The recommendations in the previous paragraphs on *international vision* and *market communication* are valid for all performance dimensions, and these resources will therefore only briefly be commented on further.

# Obtaining resources to achieve Market establishment performance

To increase Market establishment performance, managers must ensure that the firm possesses a resource base of *international commitment* and *intermediary competencies*, in addition to *international vision* and *market communication*. Market information acquired through these resources will enable managers to make sound decision and strategic plans for the establishment in the new market.

In order to obtain the required information, firms must commit sufficient economic and human resources to information gathering as well as take advantage of intermediaries' local expertise. The distribution of internal resources is a managerial task of great importance, and we argue that there is not one common optimal level of sufficient commitment. Resources are scarce and should be optimally deployed (Peteraf, 1993), and deciding upon the sufficient level of commitment is therefore a challenging task. We contend that managers use their *market communication* resource to gain a good understanding of the market and its demands, and use this knowledge to adjust the commitment. The level of resource sufficiency should continuously be reassessed, as resources required are likely to vary with the particular market and the experience of the firm.

Managers must also be aware of the performance benefits from using their intermediaries as a source of local information and expertise, as suggested by Ellis and Pecotich (2001). The significance of *intermediary competencies* indicates that managerial focus should be on obtaining highly competent intermediaries. In order to attract qualified partners, managers are recommended to use self-selection procedures and outcome-based contracts, as suggested by Cuevas-Rodríguez et al. (2012). These measures assure that the selected partners hold the desired qualifications and encourage the intermediary to work towards the same goal as the core firm. When having established collaboration with a competent intermediary, the managers need to create efficient routines for information sharing in order to reap the advantage of the intermediaries' expertise.

# Obtaining resources to achieve Market position performance

Managers that are aiming for a stronger market position abroad need to focus their effort on providing strong *international commitment*, *cooperation orientation* and *value chain coordination* as well as *international vision* and *market communication*. Consequently, managers need to adapt their resource base to ensure high Market position performance after having gained a first foothold in the market.

To successfully capture a solid position abroad, managers need to be dedicated and commit sufficient resources to the process, in line with Knight and Kim (2009). Similar to the manner described for Market establishment performance, the level of commitment should be assessed through *market communication*. Still, at this phase of internationalisation managers must not only focus on gathering information about the market situation, but also need to use the *international commitment* to invest in measures ensuring the firm becomes visible in the market. Managers should therefore invest in marketing and image building abroad.

Managers should also utilise partners to build a strong position as the partners can help identifying attractive customers (Batjargal, 2003). To accomplish this, the results show that they should establish a cooperation orientation focusing on information sharing and adaptation. To strengthen the cooperation orientation of the firm, managers should communicate the benefits of cooperation throughout the firm as well as build close relations with foreign partners. Contrary to the Market establishment performance, it is the existence and endurance of the partner relationships rather than the skills of the partners that are vital for Market position performance. However, managers must ensure the cooperation turns out beneficial by avoiding opportunism and agency problems. For this, they should interact with the partners to build trust and relational contracts, in line with Lee and Cavusgil (2006), by for instance engaging in informal activities with the partner. Additionally, frequent, informal and bidirectional communication should be maintained, as suggested by Balabanis (1998).

In order to establish an efficient value chain coordination, managers should use their market communication and cooperation orientation to identify and attract competent firms in the value chain. Managers must properly plan the value chain (Christopher, 2011, p. 90) as well as ensure that it is aligned to the strategy and international vision of the firm (Cousins et al., 2008, p. 18). In this way it can create value for the firm. Managers should look at various alternatives and also promote themselves to several potential value chain partners. Managers of small, resource-constrained companies that are seeking distributors internationally but unable to properly establish a chain of distributors themselves should utilise the existing value chain of their close partners, in line with Gabrielsson and Kirpalani (2004).

### Obtaining resources to achieve International revenue growth performance

Managers seeking longer term financial International revenue growth should ensure the firm's resource base includes *financial sufficiency* in addition to *market communication* and *international vision*. At the same time, the results indicate that *product competitive advantage*, *cooperation orientation* and *value chain coordination* should be avoided, resulting in quite a different resource base than managers focusing on the two other performance dimensions.

To acquire capital for growth, the majority of managers must approach external investors since most SMEs have limited internal financial resources (Madsen et al., 2012). Thus, managers need to focus on convincing financiers to invest in the firm. This can be done by promoting profitable future business activities and presenting positive net present value flows of future international ventures. Additionally, having an *international vision* can assist in presenting the international venture convincingly, as having a clear idea of where the firm is heading enable management to fully convey the potential of the project. Nevertheless, the amount investors are willing to lend the company depends on the current capital situation of the firm, as the firm must be able to handle the loan in turbulent periods as well. Therefore, to ensure positive growth, we recommend managers to make plans for their international ventures that take the capital they can realistically obtain from investors into consideration.

When it comes to the negatively influencing resources, both cooperation orientation and value chain coordination were found to be important to ensure Market position performance. Managers must therefore be cautious about the resources' negative influence on further growth, and should acknowledge the salient need to alter their resource base when moving from one phase of internationalisation to the next. Preemptive actions when first obtaining these resources should be taken, such as making sure the firm does not commit to inflexible contracts with long maturities. However, managers cannot dismiss the negatively influencing resources completely, and should rather try to reduce the disadvantages stemming from these resources. Regarding product competitive advantage, managers should aim to expand their product line and increase product features to enlarge the growth potential. For cooperation orientation, managers must actively work towards reducing potential agency costs in cooperative arrangements that the firm is dependent on, and considering value chain coordination, managers need to ensure flexibility and adaptability in the value chain allowing the firm to respond to changing market conditions.

#### 5.3.3 Final remarks on managerial implications

Although we have solely provided advice for obtaining the resources showing a significant influence on performance in this study, managers should be aware that all types of resources are needed in order for a firm to function properly, as suggested by Barney (1991). Thus, the resources found to have significant positive influence on international performance are therefore not the only resources an international firm needs. However, they are the resources that have a high probability of enabling firms to stand out performance wise internationally, and that managers should therefore focus more attention on.

In sum, the results show that the resources required to achieve international performance depend on the particular objective of the firm, underlining the complexities facing managers of SMEs when internationalising. Several valuable resources are found to be intangible, highly path dependent and complex, implying that considerable work is needed to obtain these and the importance of starting development of required resources early enough. Additionally, most SMEs operate in several foreign markets simultaneously, and as the individual international ventures are not necessarily in the same phase of internationalisation, the SMEs may have to

adapt to various objectives at the same time. This involves combination of the different resource requirements for the different performance goals to ensure overall success. Consequently, managers need to continuously assess what the optimal resource base is, and seek to frequently adapt the firm's resources in line with changing objectives. It is therefore a managerial task of major importance to cultivate development of their resources in the everyday strategy and decisions.

#### 5.4 Limitations and further research

Through the work on this study, we have identified what resources ensure international performance for Norwegian SMEs. Simultaneously we have encountered several further issues of interest for performance researchers. In the following, the applicability and limitations of our results will be assessed, and suggestions for further research will be discussed.

Although this study is conducted in a Norwegian context, we argue that the findings are also applicable for international SMEs based in other countries. The conceptual model of this study is developed based on literature and research from a range of countries3, and the resources included and investigated are therefore likely to be vital for international firms from various corners of the world. SMEs are relatively small and resource constrained regardless of where they are from, and they therefore have a similar starting point when internationalising and face many of the same challenges in international markets. We therefore believe that the resources ensuring high performance for international Norwegian SMEs will be similar to those that are needed to increase performance for international SMEs from other countries. Still, noticing that a large proportion of Norwegian SMEs operate in the business-tobusiness market (Norwegian Ministry of Trade and Industry, 2012), the performance enhancing resources identified by this study may be more representative for the needs of business-to-business SMEs than for SMEs in the consumer market. Additionally, we contend that the results are more applicable for SMEs from developed countries, since they to a large extent have access to the same resources as the Norwegian sample SMEs, such as effective capital institutions and employees with international experience. Consequently, we argue that the results of this study are generalizable to international SMEs within the business-to-business sector in other developed countries.

Accordingly, we encourage further research to apply the conceptual model developed in this study to samples of SMEs in business-to-business markets from other developed countries, in order to investigate whether similar results are found as expected. It is especially relevant to confirm the importance of the resources international vision and market communication for international performance, and to deepen the understanding of the negative and non-influential resources as their unexpected effect should be further investigated. For network theory, especially the appropriate extent of network should be further investigated to provide clearer recommendations for practitioners. Other research methods, such as case studies, are often better than cross-sectional studies at explaining the context and reason for the

<sup>&</sup>lt;sup>3</sup> Madsen (1989): Denmark. Lu and Beamish (2001): Japan. Kaleka (2002): UK. Svetličič et al. (2007): Central Europe. Zhou et al. (2007): China. Knight and Kim (2009): US. Javalgi et al. (2011): India.

occurrence of a specific phenomenon (Muijs, 2011, p. 39), and we therefore suggest the use of alternative methods for the purpose of further examining the findings. Additionally, as noted by Bryman (2012, p. 63), longitudinal research methods can be applied to further assess the relations between resources and performance over a longer timespan than the five-year range of this study.

Additionally, as it is neither possible nor desirable to include all thinkable factors into one model, we do by no means propose that the conceptual model is exhaustive. Other factors may be of interest for managers of SMEs and we acknowledge that the use of secondary data in this study constrains our availability of variables. Consequently, we encourage further research to use the conceptual model as a starting point to assess the model resources' influence on other performance dimensions, or to investigate the influence of other resources on international performance. In addition to the performance dimensions applied in this study, we suggest that return on investment or financial profits as well as goal achievement are interesting performance dimensions complementing the insights from our results. Return on investment and financial profit growth are often considered stronger measures of financial performance than revenue growth (Gibbs et al., 2009), however, the use of secondary data has impeded this option in our study. Further research should also customise and expand the conceptual model to include external firm factors, in order to gain a broader understanding of the influence of the external environment on international SME performance.

The data of this study is from the period 2004 to 2009, and although it allows us to investigate performance trends over time, we acknowledge that there has been a lot of changes and development in the business world since the data was collected. The sampling time of our data can therefore be seen as a limitation of the study, and we encourage future research to apply more recent data to test whether the changes over the last years have affected which resources prove to be vital for increased performance.

Lastly, as risk is found to significantly influence the performance of international SMEs, we deeply encourage further research to take risk into consideration in future performance studies. We regard it as unfortunate that most performance research within the international marketing field omits risk, as it leads to biased recommendations for practitioners. Accounting for risk will enhance the construct validity of financial performance measures, and provide recommendations based on more solid results.

# Chapter 6 | CONCLUSION

This study has quantitatively investigated the research question of what internal factors, as defined by the resource-based view, ensure high international performance for SMEs. The study is conducted in a Norwegian context, yet the results are argued to be generalizable to international SMEs from other developed countries operating in the business-to-business markets.

Resources are found to enable international SMEs to stand out performance wise. The threefold answer to the research question underlines that the road to international performance depends on the particular objective of the SMEs and its phase of internationalisation. Firms aiming to ensure high Market establishment performance should focus on obtaining a resource base comprising international vision, international commitment, intermediary competencies and market communication, whereas Market position performance is likely to increase with investments in international vision, international commitment, cooperation orientation, market communication and value chain coordination. For SMEs seeking International revenue growth performance financial sufficiency, international vision and market communication should be acquired.

These results emphasise the complexities facing SMEs striving to ensure international performance, and provide implications for theory and managers of international SMEs. For one, *international vision* and *market communication* are vital for SMEs as they contribute to high performance for all performance dimensions due to their intangible nature and characteristics enabling competitive advantage. Apart from these, different resources contribute to increase the particular performance dimensions. The performance dimensions of this study are related to successive phases of SME internationalisation, thus, managers must modify the resource base from one phase to the next. Additionally, the unexpected negative and non-influential effects of some resources indicate that theory needs to investigate the resources' impact on performance further. Managers must also aim to avoid inflexibilities in the resources base and be aware of specific resources' deteriorating effect.

In addition, as risk significantly influences financial international performance, incorporating insights on risk from the finance theory is found to enhance the solidity of performance studies within the international marketing field. Business strategies accepting high risk can result in great success or substantial failure, indicating that performance studies ignoring risk are in danger of giving advice based on biased results.

The study has identified a need for managers of international SMEs to continuously develop their resource base in order to ensure high international performance. This insight is vital for the increasing group of international SMEs to survive and succeed in the international market place, and hence for the future development of the world economy.

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# Appendix A | THE SURVEY

Først noen generelle spørsmål:								
Hva heter bedriften?		_						
Hvilken stilling har du i bedriften?		-						
Omtrent hvilket år ble bedriften etabler	t?	-						
Er bedriften	☐ en selvstendig bedrift☐ del av et konsern, datterse	elskap el.						
Da bedriften ble etablert	□ var det en knoppskyting fra en annen bedrift □ var det en helt ny etablering							
Ønsker dere tilsendt en sammenligning av egne svar med snittet av deltakende bedrifter?	□ ja □ nei	J						
Hvordan vil du vurdere betydning dere som bedrift (sett ring rundt tall		or Ikke viktige					Meget	viktige
investormiljøer		1	2	3	4	5	6	7
forskningsstiftelser (eks Sintef/1	eknologisk Inst.)	1	2	3	4	5	6	7
konsulentfirmaer		1	2	3	4	5	6	7
universiteter og høgskoler		1	2	3	4	5	6	7
Norges Forskningsråd		1	2	3	4	5	6	7
bransje og arbeidsgiverorganisa	esioner	1	2	3	4	5	6	7
fagforeninger		1	2	3	4	5	6	7
SIVA		1	2	3	4	5	6	7
JIVA				J	7	J	U	- 1
næringshager		1	2	3	4	5	6	7
det lokale/regionale næringsmil	iø.	1	2	3	4	5	6	7
i det som nå inngår i Innovasjor		· ·		3	7	3	U	,
- den eksportrettede delen ("Eksportrådet")		1	2	3	4	5	6	7
- det tidligere SND		1	2	3	4	5	6	7
det tidligere erve				J	7	- 0	U	•
I hvilken grad har dere samarbeid <u>m</u>	ed:	lkke samarb	neid					Jtbredi arbeid
universiteter/høyskoler/forskningsinstitusjoner		1	2	3	4	5	6	7
store bedrifter		1	2	3	4	5	6	7
små og mellomstore bedrifter		1	2	3	4	5	6	7
bedrifter utenfor Norge		1	2	3	4	5	6	7
leverandører		1	2	3	4	5	6	7
kunder		1	2	3	4	5	6	7
I hvilken grad har dere samarbeid <u>or</u>	<u>n:</u>	Ikke samart	peid					Jtbredi arbeid
markeds- og salgsarbeid		1	2	3	4	5	6	7
produktutvikling		1	2	3	4	5	6	7
innkjøp/lager		1	2	3	4	5	6	7
produksjon		1	2	3	4	5	6	7
logistikk/transport		1	2	3	4	5	6	7

l hvilken grad er du enig i følgende:	Helt uenig						Helt enig	
Det ville være en fordel for bedriften om Norge ble med i EU	1	2	3	4	5	6	7	
EØS avtalen gjør at dere kan konkurrere på like vilkår med andre bedrifter innen EU/EØS området	1	2	3	4	5	6	7	
Dere har flyttet noe produksjon ut av Norge	1	2	3	4	5	6	7	
Dere vurderer å flytte (ytterligere) produksjon ut av Norge	1	2	3	4	5	6	7	
Gitt at dere skulle vurdere å flytte produksjon ut av Norge								
ville hovedmotivet være kostnadsreduksjon	1	2	3	4	5	6	7	
ville hovedmotivet være å komme nærmere viktige markeder	1	2	3	4	5	6	7	
Dere opplever de generelle ramme- betingelser for bedrifter i Norge som gode	1	2	3	4	5	6	7	
I forhold til de behov dere har, oppleves tilgang på kapital som uproblematisk	1	2	3	4	5	6	7	
oppiotos tilgalig på kapital som aproblemation								
Dere regner med at EU-utvidelsen vil medføre økt prispress også på hjemmemarkedet	1	2	3	4	5	6	7	
Bedriften har et aktivt, krevende og kompetent styre	1	2	3	4	5	6	7	
De fleste strategivalg er i realiteten gitt, grunnet de produkter, den teknologi og de markeder dere arbeider mot	1	2	3	4	5	6	7	
Gitt at bedriften skulle ønske å vokse, hva ville være de viktigste hindringene:	Slett ikke					I	I meget høy grad	
mangel på lånekapital	1	2	3	4	5	6	7	
mangel på ekstern egenkapital (investorkapital)	1	2	3	4	5	6	7	
manglende salgsmuligheter på hjemmemarkedet	1	2	3	4	5	6	7	
manglende salgsmuligheter på eksportmarkedene	1	2	3	4	5	6	7	
manglende produksjonskapasitet	1	2	3	4	5	6	7	
manglende tilgang til kompetent personale	1	2	3	4	5	6	7	
I hvilken grad er du enig i følgende påstander:vekst er et sterkt ønske for bedriftens ledelse	1	2	3	4	5	6	7	
vekst er et sterkt ønske for bedriftens <u>eiere</u>	1	2	3	4	5	6	7	
vekst er nødvendig for selskapets overlevelse	1	2	3	4	5	6	7	
l løpet av en tiårsperiode er det sannsynlig at dere :								
blir kjøpt opp av nye eiere	1	2	3	4	5	6	7	
vil kjøpe opp andre bedrifter	1	2	3	4	5	6	7	
vil samarbeide stadig tettere med andre bedrifter	1	2	3	4	5	6	7	
er blitt vesentlig større enn i dag	1	2	3	4	5	6	7	
De personer som utgjør bedriftens ledelse, i hvilken grad har de lkke variert sammensetning når det gjelder:  Meget va								
yrkesmessig bakgrunn (tidligere jobber)	1	2	3	4	5	6	7	
utdannelsestype	1	2	3	4	5	6	7	
alder	1	2	3	4	5	6	7	
kjønn	1	2	3	4	5	6	7	
hvor lenge de har vært ansatt	1	2	3	4	5	6	7	

På noen områder kan en bedrift ha mange muligheter, på andre områder er de prioriteringer og handlemåter som kan følges langt på vei gitt. Vennligst gi en vurdering av hvilken grad av handlefrihet dere har på følgende områder: Ingen valg-Mange valgmuligheter muligheter .. hvilke geografiske markeder dere fokuserer på .. hvilken type kunder (kundegruppe) dere fokuserer på .. hvilken type distribusjon (agent, direkte salg eller lignende) dere bruker ..hvilke tilleggstjenester dere yter til kundene ..mulighet for samarbeid med andre bedrifter ..innretning av salgs- og markedsarbeid ..utvikling av nye produkter og tjenester Hvordan vil du beskrive markedsutviklingen (etterspørselen) og konkurransesituasjon: Sterk Sterk nedgang Stabilitet vekst Markedsutviklingen i Norge er preget av... Markedsutviklingen i det viktigste eksportmarkedet er preget av... Den samlede etterspørsel i bransjen har de siste 3 årene vært preget av... Dere forventer at egen omsetning de kommende 3 år vil vise... Hvilken type bedrifter er for dere de viktigste konkurrenter på Viktige koneksportmarkedene: Ikke viktige kurrenter ..norske små- og mellomstore bedrifter ..norske, store bedrifter ..ikke-norske små- og mellomstore bedrifter ..ikke-norske store bedrifter Økonomiske bakgrunnsopplysninger om bedriften: For to ar siden (2002) I år (2004) Om to år (2006) Antall ansatte, regnet i årsverk Omsetning, løpende kroner Eksportsalg, løpende kroner Omtrent hvilket år hadde dere det første salg i et utenlandsk marked? Om mulig å besvare, til hvilket land var første eksportsalg? Hvor stor er en gjennomsnittlig salgsstørrelse/ordre? NOK Hvor stor del av bedriftens totale omsetning, går til forskning og utvikling? Anslagsvis hvor mange ulike personer i bedriften hadde reiser i tilknytning til

eksportarbeidet i løpet av 2003?

Anslag hvor mange reisedøgn knyttet til eksport hadde dere i 2003?

I det følgende vil vi spørre deg noen spørsmål angående deres viktigste produkt eller tjeneste:

Hvilken type produkt/tjeneste har oms størst betydning for dere?	etningsmessig	
Hvor stor del av bedriftens omsetning	stammer fra dette produkt/tjeneste?	%
Ivor stor del av bedriftens omsetning stammer fra dette produkt/tjeneste?  Av de salgsinntekter som kommer fra dette produktet eller denne tjenesten, hvor tor andel er knyttet til salg av reservedeler, vedlikehold, opplæring, service, etc.		%
Kan dette produkt/tjeneste best beskrives som	☐ et ferdig produkt/tjeneste som er komplett o☐ en komponent/tjeneste som går inn i kunder	•

Hvordan vil du beskrive følgende forhold omkring denne type produkt/tjeneste:

Hvo	rdan vil du beskrive følgende forhold omkring denne type produkt/tjene	este:						
		Slett ikke						I meget høy grad
	Det kan best beskrives som et fysisk produkt	1	2	3	4	5	6	7
	Det kan best beskrives som en tjeneste	1	2	3	4	5	6	7
	Det ansees av kundene for å være teknologisk avansert	1	2	3	4	5	6	7
	Det er komplisert å bruke	1	2	3	4	5	6	7
	Det kreves stor grad av tilpasning til den enkelte kunde	1	2	3	4	5	6	7
	Det kreves utstrakt service og oppfølging i lang tid etter salget	1	2	3	4	5	6	7
	Fra den innledende kontakt med en potensiell kunde til det endelige salg går det typisk meget lang tid	1	2	3	4	5	6	7
	Det oppstår ofte tvil og usikkerhet under salgsprosessen	1	2	3	4	5	6	7
	Tildeling av ordre i denne bransjen skjer ved anbud	1	2	3	4	5	6	7
	For den enkelte kunde i denne bransjen har valg av leverandør langsiktige konsekvenser	1	2	3	4	5	6	7
	Kundene i denne bransjen oppfatter innkjøp av denne typen produkt/tjeneste som viktig og av stor økonomisk betydning	1	2	3	4	5	6	7
	Norske kunder har vært nølende/avvisende til å akseptere deres produkt- eller tjenesteløsninger	1	2	3	4	5	6	7
	Dere er spesialisert mot en avgrenset type kunder (nisje)	1	2	3	4	5	6	7
	Dere fokuserer mot noen få geografiske markeder (områder/land)	1	2	3	4	5	6	7
	I hvert enkelt land er markedet for deres viktigste produkter lite, men det finnes mange slike små markeder i verden	1	2	3	4	5	6	7
	Bedriftens geografiske lokalisering medfører transport- og reisekostnader som er negative for konkurranseevnen på eksportmarkedene	1	2	3	4	5	6	7
	Tidsaspektet har stor betydning for dere, det å nå hurtig ut i markedet er viktig for bedriften	1	2	3	4	5	6	7
	De fire bedrifter som omsetter mest på det europeiske markedet utgjør en stor del av bransjens samlede omsetning	1	2	3	4	5	6	7

Sammenlignet med deres konkurrenter, vil du da si at deres viktigste produkt/tjeneste:

	Slett ikke		\	Til en /iss grad	d	h	l meget øy grad
Er rettet mot spesielle behov, disse behovene er det vanskelig for konkurrentene å dekke	1	2	3	4	5	6	7
Representerer en ny og innovativ måte å løse kundens behov	1	2	3	4	5	6	7
Har et særpreget design	1	2	3	4	5	6	7
Er basert på unik teknologi	1	2	3	4	5	6	7
Har unike egenskaper	1	2	3	4	5	6	7

De påfølgende spørsmålene er rettet mot deres internasjonale aktiviteter:

Hvor mange land blir det eksportert	til?	
Hva er det viktigste eksportmarked	(land)?	
Om mulig å besvare - til hvor mang Norge hadde bedriften salg etableringen?		
Vennligst gi en anslagsvis skisse m	ht. hvordan bedrifte	ens salg fordelte seg siste regnskapsår:
Norge%	USA%	
Norden%	Øvrige verden	%
Øvrige Europa %		

I hvilken grad finner du at utsagnene nedenfor passer for deres bedrift:

	Helt uer	nig				H	elt enig
Ønske om vekst er et motiv for de internasjonale aktiviteter	1	2	3	4	5	6	7
Muligheter for økt fortjeneste er et motiv for den internasjonale aktivitet	1	2	3	4	5	6	7
Dere ser på verden, ikke bare Norge, som firmaets marked	1	2	3	4	5	6	7
Pga usikkerheten ved arbeid på eksportmarkedene finner dere det best å utvide aktiviteten forsiktig og gradvis	1	2	3	4	5	6	7
Bedriftens kultur er preget av at en aktivt søker muligheter på eksportmarkedene	1	2	3	4	5	6	7
Dere har en god evne til å utvikle og tilpasse nye og eksisterende produkter og tjenester til internasjonale markeder	1	2	3	4	5	6	7
Det legges vekt på å understreke ovenfor alle ansatte hvor viktig det er å lykkes med eksport	1	2	3	4	5	6	7
Det legges vekt på å utvikle menneskelige og andre ressurser som kan bidra til vellykket eksport	1	2	3	4	5	6	7
Den økonomiske ressursinnsats knyttet til eksport har vært tilstrekkelig i forhold til de mål for salgsvolum som har vært satt	1	2	3	4	5	6	7
I forhold til salgsmålene har de menneskelige ressurser hjemme for å støtte distribusjonsledd og kunder vært tilstrekkelige	1	2	3	4	5	6	7
Beslutninger vedrørende ett eksportmarked blir koordinert med beslutninger vedrørende andre eksportmarkeder	1	2	3	4	5	6	7

#### Angående bruk av elektronisk kommunikasjon i det daglige arbeide:

	Slett ikke						meget sy grad
Dere har en omfattende norskspråklig hjemmeside	1	2	3	4	5	6	7
Dere har en omfattende engelskspråklig hjemmeside	1	2	3	4	5	6	7
Via hjemmesiden har dere fått kontakt med nye kunder og partnere	1	2	3	4	5	6	7
Dere har et omfattende nyhetsbrev på Internet	1	2	3	4	5	6	7
		_	_		_		_
Dere selger deres produkter og tjenester via Internet	1	2	3	4	5	6	7
Dere yter service på deres produkter via Internet	1	2	3	4	5	6	7
Dere kommuniserer med eksisterende kunder og partnere Internet	via 1	2	3	4	5	6	7
Dere gjennomfører utviklingsarbeid med eksisterende kunder partnere via Internet	r og 1	2	3	4	5	6	7
Dere bruker Internet til å bygge opp og vedlikeh kunderelasjoner	olde 1	2	3	4	5	6	7
Dere bruker Internet til å skaffe kunder/partnere på geografisk fj markeder	erne 1	2	3	4	5	6	7
For dere har Internet redusert betydningen av mellom (grossister, distributører, agenter o.l.)	ledd 1	2	3	4	5	6	7
Dere søker aktivt på Internet for å finne mulige mellomledd til de produkter og tjenester	eres 1	2	3	4	5	6	7
Dere søker på Internet for å finne informasjon om konkurrenter	1	2	3	4	5	6	7
Dere søker på Internet for undersøke muligheter på nye markeder	1	2	3	4	5	6	7
I bedriften er Internet sett på som en viktig ressurs	1	2	3	4	5	6	7

#### I forhold til deres forventninger, hvor tilfreds er dere med eksportresultatene med hensyn til:

<b>y</b> ,			-				
	Meget utilfreds	5					Meget tilfreds
oppnådd markedsandel	1	2	3	4	5	6	7
salgsvekst	1	2	3	4	5	6	7
salgsvekst i forhold til konkurrentene	1	2	3	4	5	6	7
inntjening/lønnsomhet	1	2	3	4	5	6	7
det image dere har opparbeidet på markedet	1	2	3	4	5	6	7
kompetanseoppbygging gjennom kontakt med særlig krevende kunder	1	2	3	4	5	6	7
kunnskap om konkurrenters strategi og adferd	1	2	3	4	5	6	7
kunnskap om nye mulige distribusjonsformer	1	2	3	4	5	6	7
adgang til nye markeder	1	2	3	4	5	6	7
Alt tatt i betraktning, hvordan er dere tilfreds med de totale							
resultatene av eksportarbeidet de siste årene?	1	2	3	4	5	6	7

Inter	nasjonal distribusjonskanal:							
	Hvilken av de følgende beskrivelser passer best på den distribusjonskanal dere bruker på det viktigste eksportmarked? (sett kryss)	Direktesa Joint ven	_			ent/dis et salg		
	eksportmarked: (sett kryss)	Annet:			·	_		
	<b>J</b>	Alliet						
bruk	enfor er det stilt noen spørsmål angår deres forhold til deres viktigst e betegnelsen "direkte kunde", dvs. en kunde i utlandet dere har di omledd, industrielle kunder, detaljhandlere etc.).							
Til h	vilken type direkte kunde har deres størst omsetning i det viktigste ek	sportmarl	ked:					
	☐ Industriell kunde (private eller offentlige/halvoffentlige virksomh	eter)						
	Et mellomledd (agent, detaljhandel eller lignende) som viderese	elger <u>i der</u>	es navr	<u>1</u>				
	Et mellomledd (agent, detaljhandel eller lignende) som viderese	elger <u>i eg</u> e	t navn					
	☐ Private forbrukere (enkeltpersoner eller husholdninger)							
	☐ Annet:							
	Dersom det er mulig å angi, omtrent hvor mange av den type direk eksport marked (dvs. dem dere har direkte transaksjoner og kontak		nevnt	ovenfo	or har c	lere i d	et vikti	gste
	kunder							
	Hvor stor del av den totale omsetning i det viktigste eksportmarked%	represent	erer de	tre stø	irste ku	ınder?		
Hvoi	dan vil du karakterisere den måten dere arbeider sammen med denn	ne direkte Helt uenig	kunde:					Helt enig
	Begge parter har $\underline{\text{vilje}}$ til å tilpasse det løpende samarbeidet bes mulig til endrede betingelser	t 1	2	3	4	5	6	7
	Begge parter har også <u>evnen</u> til å tilpasse det løpende samarbeide best mulig til endrede betingelser	t 1	2	3	4	5	6	7
	I fall en uventet situasjon oppstår foretrekker begge parter å lage er ny avtale fremfor å holde på den eksisterende avtalen	1 1	2	3	4	5	6	7
	Utveksling av informasjon går uformelt og ikke bare ut fra tidligere formelle avtaler	1	2	3	4	5	6	7
	Det forventes at <u>fortrolig, intern</u> informasjon gis videre dersom der kan være verdifull for partneren	1 1	2	3	4	5	6	7
	Det forventes at <u>enhver</u> informasjon gis videre dersom den kar være verdifull for partneren	1 1	2	3	4	5	6	7
	Det forventes at dere holder hverandre informert om begivenhete eller endringer som kan påvirke partneren	r 1	2	3	4	5	6	7
	Problemer som oppstår i denne relasjonen behandles av begge parter som et felles problem, heller enn et individuelt problem	1	2	3	4	5	6	7
	Partene har ikke noe i mot å skylde hverandre tjenester	1	2	3	4	5	6	7
	Begge parter fokuserer både på den enkelte handel og på fortsettelsen av samarbeidet	<sup>à</sup> 1	2	3	4	5	6	7

I hvilken grad er du enig i de følgende utsagn om deres viktigste kunde:

	Helt uenig						Helt enig
Samarbeidet med denne direkte kunde er karakterisert ved høy grad av tillit	1	2	3	4	5	6	7
Når kunden gir råd, stoler dere på at det er basert på deres beste skjønn	1	2	3	4	5	6	7
Kunden opptrer fair og ærlig	1	2	3	4	5	6	7
Deres medarbeidere har tette sosiale relasjoner til kundens medarbeidere	1	2	3	4	5	6	7
Samarbeidet med kunden gir gjensidig positivt utbytte	1	2	3	4	5	6	7
Dere forventer å arbeide sammen med denne kunden i lang tid fremover	1	2	3	4	5	6	7
Små uoverenskomster mellom dere og kunden oppleves ikke som noen hindring for fremtidig samarbeid	1	2	3	4	5	6	7
Skulle dere valgt igjen ville dere velge å samarbeide med denne kunden igjen	1	2	3	4	5	6	7

Mange bedrifter anvender ulike "mellomledd". Dette kan være agenter, imortører, datterselskap eller samarbeidende bedrifter innen bransjen som forestår distribusjon. Gitt at dere har slike mellomledd – i hvilken grad ivaretar dere selv eller mellomleddet salgs- og markedsføringsoppgavene under? Dersom det er skiller mellom land – svar for det viktigste mellomledd på viktigste eksportmarked:

		Ivaretas 100% av deres mellomledd			i p	Ivaretas 100% av dere selv	
Identifisering av potensielle nye kunder	1	2	3	4	5	6	7
Oppsøkende salg overfor nye, potensielle kunder	1	2	3	4	5	6	7
Analyse av nåværende og nye kunders ønsker og	behov 1	2	3	4	5	6	7
Informasjon om deres tilbud til nåværende og nye l	kunder 1	2	3	4	5	6	7
Konkrete forhandlinger om salg og kontrakter	1	2	3	4	5	6	7
Beslutning om lansering av nye produkter/tjenester	1	2	3	4	5	6	7
Beslutning om endelig utforming av produkter/tjene	ster 1	2	3	4	5	6	7
Fastsettelse av priser og rabatter	1	2	3	4	5	6	7
Beslutninger om leveringstider og orderprioriteringe	er 1	2	3	4	5	6	7
Utforming av lokalt salgs- og reklamemateriale	1	2	3	4	5	6	7
Lagerføring, transport og/eller forsikring	1	2	3	4	5	6	7
Administrering av den løpende kontakt med kunde	ne 1	2	3	4	5	6	7

#### Hvordan vil dere karakterisere mellomleddets bidrag:

ПVО	ruan vii dere karaktensere mellomleddets blurag.							
		Helt uenig						Helt enig
	Mellomleddet har hjulpet med å forbedre resultatet på dette markedet	1	2	3	4	5	6	7
	Mellomleddet har hjulpet dere til å bli mer konkurransedyktige i form av evnen til å imøtekomme kundenes ønsker og behov	1	2	3	4	5	6	7
	Mellomleddet har hjulpet med å bli mer konkurransedyktige i form av evnen til reagere på endrede betingelser	1	2	3	4	5	6	7
	Mellomleddet har vært god til å utføre salgsoppgaver	1	2	3	4	5	6	7
	Mellomleddet har vært god til å gi kundene teknisk støtte og opplæring	1	2	3	4	5	6	7
	Mellomleddet har vært god til å utføre service og oppfølging etter salg	1	2	3	4	5	6	7
	Mellomleddet har vært god til å sette prisene etter de lokale forhold	1	2	3	4	5	6	7
	Mellomleddet har vært god til å samle markedsinformasjon	1	2	3	4	5	6	7
	Mellomleddet har vært god til å finne nye markedsmuligheter	1	2	3	4	5	6	7

#### Avslutningsvis - hvordan vil du vurdere bedriften sammenliknet med andre bedrifter på det viktigste eksportmarked?

	Vi er meget svake			Ingen forskjell	V meget ste		
Innkjøp	1	2	3	4	5	6	7
Produksjon	1	2	3	4	5	6	7
Logistikk og distribusjon	1	2	3	4	5	6	7
Salg og markedsføring	1	2	3	4	5	6	7
Kundebehandling og kundeservice	1	2	3	4	5	6	7
Finansiering og økonomistyring	1	2	3	4	5	6	7
Service, vedlikehold og ettersalg	1	2	3	4	5	6	7
Evne til å organisere, planlegge og lede	1	2	3	4	5	6	7
Evne til å levere kvalitetsmessig gode produkter/tjenester	1	2	3	4	5	6	7
Evne til å utvikle nye produkter og tjenester	1	2	3	4	5	6	7
Evne til å levere de billigste produkter/tjenester	1	2	3	4	5	6	7
Evne til å levere raskt og pålitelig	1	2	3	4	5	6	7
Evne til å finne nye og kreative metoder i markedsføring	1	2	3	4	5	6	7
Evne til å kommunisere med markedet	1	2	3	4	5	6	7
Evne til personlig salg	1	2	3	4	5	6	7
Evne til å utvikle nye teknologiske løsninger	1	2	3	4	5	6	7
Evnen til å levere avansert teknologi	1	2	3	4	5	6	7
Evne til å utvikle spesialprodukter	1	2	3	4	5	6	7
Ansattes produktivitet	1	2	3	4	5	6	7
Ansattes engasjement i bedriftens utvikling	1	2	3	4	5	6	7
Tilstedeværelse i nye, innovative markeder	1	2	3	4	5	6	7

# **Appendix B** | PRINCIPAL COMPONENT ANALYSES

In this appendix the SPSS output from the principal component analyses of the variables in the survey is presented. The subjects in the survey relevant for our study have been analysed separately, and a detailed description of the performed analyses can be found in Section 3.3.2. It should be noted that some variables identified in the factors have later been removed to increase the internal reliability, through the Cronbach's alpha test. The output from each principal component analysis will be presented in the following order; Pattern Matrix, KMO test, Bartlett's test, determinant of Correlation Matrix, and the Anti-image Correlation Matrix.

#### Principal component analysis 1: Product competitive advantage

Pattern Matrix	Comp	onent
	1	2
fys. prod 405		0.817
tjeneste 406		-0.852
tekn. avansert 407	0.668	
komplsert å bruke 408	0.407	-0.344
spesielle behov 501	0.639	
ny og inn. måte 502	0.756	
særpr. design 503	0.607	
unik tekn. 504	0.846	
unike egensk. 505	0.824	
Number of valid entries (N)	266	

Testing applicability of factor analysis	
Kaiser-Meyer-Olkin test	0.782
Bartlett's Test of Sphericity (significance)	0.000
Determinant of correlation matrix	0.062

Anti-Image Correlation Matrix

	in ininge correlation in									
		1	2	3	4	5	6	7	8	9
1	fys. prod 405	.505a								
2	tjeneste 406	0.502	.528a							
3	tekn. avansert 407	-0.193	-0.285	.778a						
4	komplsert å bruke 408	0.093	-0.064	-0.278	.811a					
5	spesielle behov 501	-0.024	-0.020	0.057	-0.158	.851a				
6	ny og inn. måte 502	0.041	-0.100	-0.154	0.018	-0.318	.860a			
7	særpr. design 503	-0.063	0.013	-0.021	0.019	-0.025	-0.034	.890a		
8	unik tekn. 504	0.060	0.223	-0.290	-0.094	-0.068	-0.169	-0.124	.800a	
9	unike egensk. 505	0.063	-0.022	-0.083	0.057	-0.129	-0.224	-0.221	-0.406	.830a

a Measures of Sampling Adequacy(MSA)

#### Principal component analysis 2: Financial sufficiency

Pattern Matrix	Comp	onent	
	1	2	3
m. lånekapital 212	0.920		
m. ekstern egenkap.213	0.922		
m. salgsmuligh. på hj.marked 214			0.832
m. salgsmuligh. på eksp.marked 215			0.591
m. prod.kap. 216		0.787	
m. komp. pers. 217		0.723	
Number of valid entries (N)	269		

Testing applicability of factor analysis	
Kaiser-Meyer-Olkin test	0.504
Bartlett's Test of Sphericity (significance)	0.000
Determinant of correlation matrix	0.433

	1	2	3	4	5	6
1 m. lånekapital 212	.500a					
2 m. ekstern egenkap.213	-0.721	.500a				
3 m. salgsmuligh. på hj.marked 214	0.000	-0.049	.540a			
4 m. salgsmuligh. på eksp.marked 215	0.000	0.084	-0.086	.631a		
5 m. prod.kap. 216	-0.069	0.034	0.025	-0.027	.520a	
6 m. komp. pers. 217	-0.092	0.099	-0.045	-0.107	-0.188	.500a

a Measures of Sampling Adequacy(MSA)

# Principal component analysis 3: Employee dedication, market communication and value chain coordination Pattern Matrix Component

Pattern Matrix	Compo	nent			
	1	2	3	4	5
innkjøp 910				0.778	
produksjon 911				0.707	
log og distr. 912				0.726	
salg og m.f. 913			-0.711		
kundebeh. 914	0.374		-0.441		
fin. og økn. styring 915				0.624	
service 916					-0.318
e.t. org. 917	0.327		-0.324		
e.t levere kvalitet 918	0.500				-0.365
e.t. utvikle prod 919	(	0.746			
e.t. levere billigste 920					0.742
e.t. levere raskt 921	0.477				
e.t. å finne nye metoder 922			-0.698		0.387
e.t. kommunisere 923			-0.821		
e.t. pers. salg 924			-0.719		
e.t. utv. nye løsn. 925	(	0.875			
e.t. levere avansert tekn. 926	(	0.825			
e.t. utv. spes. prod 927	(	0.752			
ans. produktivitet 928	0.831				
ans. engasjement 929	0.824				
tilstedeværelse i nye innovative markeder 930			-0.526		
Number of valid entries (N)	234				
Number of valid entries (N)	234				
Testing applicability of factor analysis					0.02
Kaiser-Meyer-Olkin test					0.831
Bartlett's Test of Sphericity (significance)					0.000
Determinant of correlation matrix					0.0001

1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21     2	Anti-image Correlation Matrix																			
.814a						9	7	8	6	10	11	12								
-0.085         .856a           0.087         .795a           0.087         -0.287           0.087         -0.287           0.087         -0.287           0.085         -0.094           0.085         -0.014           0.027         -0.024           0.028         -0.025           0.032         -0.027           0.032         -0.027           0.034         -0.045           0.035         -0.019           0.036         -0.017           0.037         -0.018           0.038         -0.019           0.040         -0.015           0.055         -0.027           0.078         -0.017           0.079         -0.119           0.080         -0.065           0.018         -0.067           0.028         -0.067           0.039         -0.018           0.040         -0.117           0.041         -0.128           0.042         -0.129           0.043         -0.129           0.044         -0.129           0.045         -0.140           0.045           0.	1 innkjøp 910	.814a																		
-0.287         .795a           0.063         0.013         -0.303         .889a           0.065         -0.054         -0.023         .877a           0.027         -0.034         -0.223         .877a           0.035         -0.054         -0.022         .827a           0.035         -0.010         0.015         .0198         -0.128         .881a           0.070         -0.153         .079         -0.111         .035         .019         .0129         .0120	2 produksjon 911		5a																	
0.039 0.013 -0.303 .849a 0.065 0.045 -0.094 -0.232 .877a 0.005 0.045 -0.094 0.023 .823a 0.003 -0.010 0.027 -0.038 -0.145 -0.195 -0.123 .914a 0.070 -0.153 0.079 -0.111 0.035 0.019 0.193 -0.225 .827a 0.098 -0.006 -0.065 -0.057 -0.055 -0.017 -0.011 -0.061 -0.120 .803a 0.013 -0.137 0.042 -0.097 0.054 0.054 0.072 0.018 0.090 -0.137 -0.0954 .828a 0.014 -0.070 -0.150 0.097 0.008 0.099 0.013 0.007 0.024 0.072 0.238 0.099 0.013 0.025 0.025 .827a 0.004 -0.017 0.105 0.097 0.007 0.008 0.009 0.013 0.003 0.025 0.025 .827a 0.001 0.016 0.120 0.097 0.078 0.099 0.003 0.007 0.024 0.072 0.038 0.009 0.003 0.025 0.025 0.025 0.004 0.007 0.005 0.005 0.009 0.003 0.005	3 log og distr. 912	,		~																
0.065 0.045 -0.094 -0.232 .877a  0.278 -0.055 -0.054 -0.064 0.032 .823a  0.070 -0.153 0.079 -0.111 0.035 0.019 -0.193 .914a  0.070 -0.153 0.079 -0.111 0.035 0.019 -0.193 .0.225 .827a  0.098 -0.065 -0.065 -0.057 -0.058 0.019 -0.193 .0.225 .827a  0.098 -0.006 -0.057 -0.039 0.054 0.054 0.010 0.001 0.001 0.001 0.003 .0.025 .822a  0.002 -0.037 -0.197 0.055 -0.017 0.011 0.001 0.001 0.001 0.003 0.0025 .822a  0.003 0.017 0.012 0.037 0.024 0.072 0.000 0.017 0.013 0.003 0.025 .822a  0.004 0.017 0.102 0.037 0.106 0.018 0.009 0.010 0.007 0.025 0.027 0.008 0.007 0.025 0.025 .822a  0.001 0.016 0.120 0.037 0.006 0.150 0.009 0.000 0.013 0.025 0.007 0.007 0.007 0.008 0.007 0.007 0.007 0.008 0.009 0.000 0.001 0.007 0.007 0.008 0.007 0.008 0.007 0.007 0.008 0.007 0.007 0.007 0.008 0.007 0.007 0.008 0.007 0.007 0.008 0.007 0.007 0.008 0.007 0.007 0.008 0.007 0	4 salg og m.f. 913	_																		
-0.278         -0.055         -0.054         -0.052         -8.23a           -0.032         -0.0271         -0.198         -0.158         -8.81a           -0.032         -0.021         -0.195         -0.158         -0.195         -0.158         -0.158         -0.158         -0.195         -0.195         -0.195         -0.195         -0.195         -0.195         -0.195         -0.195         -0.195         -0.195         -0.195         -0.115         -0.006         -0.007	5 kundebeh. 914	_	'		.877a															
-0.032 -0.021 -0.104 0.144 -0.198 -0.158 .881a -0.035 -0.100 0.027 -0.038 -0.145 -0.195 -0.123 .914a 0.070 -0.153 0.079 -0.111 0.035 0.019 -0.193 -0.225 .827a 0.098 -0.006 -0.005 -0.057 0.007 -0.030 0.100 -0.101 0.001 0.001 0.0024 0.0110 0.030 0.110 0.030 0.110 0.030 0.110 0.030 0.110 0.030 0.110 0.030 0.110 0.030 0.012 0.0034 0.003 0.003 0.024 0.018 0.003 0.013 0.000 0.003 0.012 0.034 0.019 0.003 0.013 0.000 0.010 0.004 0.012 0.030 0.013 0.000 0.003 0.025 0.024 0.018 0.000 0.003 0.024 0.011 0.030 0.012 0.0034 0.010 0.003 0.012 0.0034 0.003 0.004 0.007 0.003 0.	6 fin. og økn. styring 915	,			0.032	.823a														
-0.035         -0.100         0.027         -0.038         -0.145         -0.125         -0.125         -0.225         -0.023         -0.023         -0.022         -0.007         -0.023         -0.012         -0.034         -0.014         -0.024         -0.015         -0.070         -0.024         -0.024         -0.014         -0.027         -0.013         -0.054         -0.024         -0.014         -0.027         -0.027         -0.024         -0.024         -0.014         -0.027         -0.027         -0.024         -0.024         -0.014         -0.027         -0.024         -0.024         -0.017         -0.025         -0.024         -0.024         -0.017         -0.025         -0.025         -0.025         -0.025         -0.025         -0.025         -0.025         -0.025         -0.025         -0.025         -0.026         -0.026         -0.013         -0.026         -0.027         -0.026         -0.026         -0.037         -0.026         -0.026 </td <td>7 service 916</td> <td></td> <td></td> <td></td> <td>-0.198</td> <td>-0.158</td> <td>.881a</td> <td></td>	7 service 916				-0.198	-0.158	.881a													
0.070 -0.153 0.079 -0.111 0.035 0.019 -0.193 -0.225 .827a 0.098 -0.006 -0.065 -0.057 -0.055 .0.017 -0.011 -0.061 -0.120 .803a 0.0135 -0.137 0.042 -0.049 0.054 0.014 0.0011 -0.061 -0.120 .803a 0.0135 -0.137 0.042 -0.049 0.054 0.014 0.0011 -0.061 0.012 .685a 0.020 -0.037 -0.197 0.055 -0.236 0.024 0.072 -0.107 0.023 0.013 -0.054 .828a 0.017 0.102 -0.337 0.196 -0.018 0.099 -0.136 -0.072 0.238 0.080 0.003 -0.226 .822a 0.018 0.010 0.016 0.120 -0.037 0.009 0.009 0.009 0.009 0.003 -0.026 .822a 0.001 0.016 0.100 0.100 0.059 0.029 0.009 0.009 0.009 0.009 0.007 0.007 0.009 0	8 e.t. org. 917				-0.145	-0.195	-0.123	.914a												
0.098 -0.006 -0.065 -0.057 -0.055 -0.017 -0.011 -0.061 -0.120 .803a -0.135 -0.137 0.042 -0.049 0.054 0.164 0.034 -0.115 0.070 -0.012 .685a 0.002 -0.037 -0.197 0.055 -0.236 0.024 0.075 -0.230 0.173 -0.054 828a 0.003 -0.137 0.105 -0.136 0.003 -0.136 0.007 -0.230 0.173 -0.099 0.121 .736a 0.017 0.102 0.037 0.196 -0.018 0.009 0.136 -0.072 0.238 0.080 0.0033 -0.265 822a 0.016 0.106 0.120 -0.037 0.009 0.009 0.000 0.002 0.025 0.039 0.003 0.026 8 0.039 0.000 0.025 0.133 -0.027 0.008 0.072 0.040 8 0.037 0.035 0.059 0.009	9 e.t levere kvalitet 918				0.035	0.019	-0.193	0.225	.827a											
-0.135         -0.042         -0.054         0.154         0.014         0.070         -0.012         .685a           0.002         -0.037         -0.126         0.024         0.075         -0.200         0.173         -0.054         .828a           0.002         -0.037         -0.126         -0.027         -0.129         0.017         -0.054         .828a           0.017         -0.102         -0.337         0.198         -0.036         -0.107         -0.129         -0.127         -0.099         -0.127         -0.099         -0.127         -0.099         -0.017         -0.007         -0.027         -0.027         -0.027         -0.040         -0.017         -0.007         -0.027         -0.027         -0.027         -0.040         -0.017         -0.007         -0.027         -0.007         -0.027         -0.027         -0.040         -0.017         -0.007         -0.027         -0.007         -0.027         -0.007         -0.027         -0.007         -0.027         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007         -0.007	10 e.t. utvikle prod 919				-0.055	-0.017	-0.011	-0.061	0.120	.803a										
0.002 -0.037 -0.197 0.055 -0.236 0.024 0.072 -0.007 -0.230 0.173 -0.054 828a 0.063 0.017 0.102 -0.337 0.196 -0.018 -0.096 -0.110 0.307 -0.113 -0.099 0.103 -0.265 822a 0.011 0.016 0.120 -0.037 0.006 0.150 0.029 0.000 0.025 -0.138 0.080 0.003 -0.265 822a 0.040 0.117 0.103 0.037 0.006 0.150 0.029 0.000 0.025 0.138 0.090 0.007 0.075 0.042 871a 0.040 0.117 0.103 0.037 0.006 0.150 0.029 0.008 0.018 0.009 0.007	11 e.t. levere billigste 920				0.054	0.164	0.034	0.115			685a									
0.063 0.017 0.102 -0.337 0.196 -0.018 0.096 -0.110 0.307 -0.173 -0.099 -0.121 .736a -0.115 0.094 -0.070 -0.126 -0.152 -0.038 0.089 -0.136 -0.072 0.238 0.080 0.003 -0.265 .822a -0.011 0.016 0.120 -0.078 -0.059 0.009 0.000 -0.025 -0.133 -0.027 -0.068 0.072 -0.402 .871a -0.064 0.0117 0.103 0.037 0.006 -0.159 0.029 0.000 0.078 0.008 0.007 0.007 0.007 0.007 0.049 0.055 0.049 0.059 0.009 0.027 0.006 0.007 0.009 0.007 0.009 0.001 0.009 0.007 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.001 0.007 0.003 0.000 0.001 0.003 0.001 0.003 0.000 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.002 0.004 0.005 0.005 0.009 0.003 0.001 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.000 0.001 0.003 0.001 0.003 0.000 0.001 0.003 0.001 0.003 0.001 0.003 0.001 0.003 0.002 0.006 0.003 0.002 0.003 0.002 0.003 0.002 0.003	12 e.t. levere raskt 921				-0.236	0.024	0.072	- 700.0	0.230			828a								
-0.115 0.094 -0.070 -0.126 -0.152 -0.038 0.089 -0.136 -0.072 0.238 0.080 0.003 -0.265 8.82a 0.001 0.016 0.120 -0.078 -0.059 0.009 0.000 -0.025 -0.133 -0.027 -0.068 0.072 -0.402 8.71a 0.004 -0.117 0.103 0.037 0.006 -0.150 0.039 0.000 0.078 -0.008 -0.037 0.005 0.043 0.176 0.033 0.059 0.049 0.139 0.039 0.003 0.014 0.046 0.007 0.007 0.007 0.037 0.083 0.050 0.049 1.98a 0.027 -0.045 0.096 0.106 0.119 0.099 0.023 0.020 0.001 0.009 0.001 0.009 0.003 0.003 0.030 0.030 0.032 0.030 0.042 0.065 0.055 0.022 0.058 0.039 0.023 0.020 0.001 0.012 0.013 0.032 0.017 0.033 0.002 0.013 0.012 0.003 0.014 0.010 0.024 0.133 0.034 0.133 0.034 0.133 0.034 0.012 0.015 0.033 0.002 0.014 0.006 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.012 0.003 0.002 0.004 0.003 0.002 0.004 0.003 0.002 0.004 0.003 0.002 0.004 0.003 0.002 0.004 0.003 0.002 0.004 0.003 0.003 0.002 0.004 0.003 0.002 0.004 0.003 0.002 0.003 0.002 0.003 0.00	13 e.t. å finne nye metoder 922				0.196	-0.018	-0.096	0.110	.'		_'		736a							
0.001 0.016 0.120 -0.097 -0.078 -0.059 0.099 0.000 -0.025 -0.133 -0.027 -0.068 0.072 -0.402 .871a 0.040 -0.117 0.103 0.037 0.006 -0.150 -0.020 0.078 -0.008 -0.418 -0.090 -0.075 0.043 -0.176 0.035 0.759a -0.066 0.068 0.035 0.106 0.105 0.023 0.020 0.014 0.046 0.080 0.057 0.037 0.083 0.050 -0.494 .798a -0.027 -0.045 -0.096 0.106 -0.119 0.099 0.023 0.020 0.001 -0.096 0.098 0.040 0.004 0.065 -0.095 -0.227 -0.260 .872a -0.027 0.114 0.110 -0.024 0.128 -0.031 -0.125 -0.017 -0.017 0.033 0.003 -0.002 -0.017 0.033 0.003 -0.037 0.085 -0.023 0.003 0.031 -0.125 -0.017 0.019 0.033 0.003 -0.002 0.013 -0.054 0.053 0.003 0.003 -0.002 0.001 0.003 0.012 0.003 0.003 0.012 0.005 0.003 0.010 0.003 0.002 0.003 0.003 0.002 0.004 0.003 0.003 0.002 0.004 0.005 0.003 0.002 0.006 0.003 0.002 0.006 0.003 0.002 0.006 0.003	14 e.t. kommunisere 923				-0.152	-0.038	0.089		0.072		_			22a						
0.040 -0.117 0.103 0.037 0.006 -0.150 0.028 0.078 -0.008 -0.418 -0.090 -0.075 0.043 -0.176 0.035 0.759a -0.066 0.068 0.035 -0.106 0.106 0.053 0.030 -0.139 -0.014 0.046 0.089 0.057 -0.037 0.083 0.050 -0.494 .798a -0.027 -0.045 -0.096 0.106 0.106 0.053 0.020 0.011 -0.096 0.098 0.040 0.004 0.065 -0.095 -0.227 -0.260 .872a -0.027 -0.045 0.015 0.015 0.0196 0.009 0.031 -0.125 -0.017 -0.013 -0.039 0.003 0.012 -0.103 -0.0196 0.009 0.014 0.019 0.082 -0.017 0.019 0.033 0.002 -0.037 0.003 -0	15 e.t. pers. salg 924				-0.078	-0.059	-0.099						7		71a					
-0.066 0.068 0.035 -0.106 0.106 0.053 0.030 -0.139 -0.014 0.046 0.080 0.057 -0.037 0.083 0.050 -0.494 7.98a -0.027 -0.045 -0.096 0.1106 -0.119 0.099 0.023 0.020 0.001 -0.096 0.009 0.004 0.006 -0.005 -0.005 -0.052 -0.260 .872a -0.006 0.1106 0.1106 0.1109 0.009 0.031 -0.125 -0.017 -0.013 -0.030 0.042 0.066 0.105 -0.108 -0.003 -0.012 -0.013 -0.108 -0.003 0.014 -0.012 -0.017 0.019 -0.033 0.002 0.004 0.0053 -0.103 -0.103 -0.024 -0.517 -0.019 0.082 -0.017 0.019 -0.033 -0.002 0.004 -0.053 -0.103 -0.024 -0.517 -0.106 -0.003 0.012 -0.003 -0.002 -0.003 -0.003 -0.002 -0.003 -0.002 -0.003	16 e.t. utv. nye losn. 925				0.006	-0.150	-0.020	0.078			_				_	59a				
-0.027 -0.045 -0.096 0.106 -0.119 0.099 0.023 0.020 0.001 -0.096 0.098 0.040 0.004 0.065 -0.095 -0.227 -0.260 .872a -0.005 -0.137 0.066 0.012 -0.103 -0.196 0.009 0.031 -0.125 -0.017 -0.073 -0.134 -0.030 0.042 0.066 0.169 -0.058 -0.102 .792a 0.024 0.116 -0.114 0.110 -0.024 0.128 0.031 -0.161 -0.019 0.082 -0.017 0.019 -0.033 -0.002 -0.046 -0.053 -0.103 -0.024 -0.517 .790a -0.089 -0.023 0.102 -0.159 -0.034 0.133 -0.074 0.041 -0.012 -0.166 -0.102 0.063 -0.147 -0.105 -0.130 0.012 -0.063 -0.062 -0.016 -0.092 .	17 e.t. levere avansert tekn. 926				0.106	0.053	0.030										98a			
-0.005 -0.137 0.066 0.012 -0.103 -0.196 0.009 0.031 -0.125 -0.017 -0.073 -0.134 -0.030 0.042 0.066 0.169 -0.058 -0.102 .792a 0.024 0.116 -0.114 0.110 -0.024 0.128 0.031 -0.161 -0.019 0.082 -0.017 0.019 -0.033 -0.002 -0.046 -0.053 -0.103 -0.024 -0.517 .790a -0.089 -0.023 0.102 -0.159 -0.034 0.133 -0.074 0.041 -0.015 -0.166 -0.102 0.063 -0.147 -0.105 -0.130 0.012 -0.063 -0.062 -0.005 -0.092 .0.005 -0.023 0.102 -0.054 0.133 -0.074 0.041 -0.015 -0.166 -0.105 0.063 -0.147 -0.105 -0.130 0.012 -0.063 -0.062 -0.005 .0.005 -0.005 0	18 e.t. utv. spes. prod 927				-0.119	0.099	0.023	_										72a		
0.024 0.116 -0.114 0.110 -0.024 0.128 -0.031 -0.161 -0.019 0.082 -0.017 0.019 -0.033 -0.002 -0.046 -0.053 -0.103 -0.024 -0.517 .790a -0.089 -0.023 0.102 -0.159 -0.034 0.133 -0.074 0.041 -0.012 -0.166 -0.102 0.063 -0.147 -0.105 -0.130 0.012 -0.063 -0.062 -0.066 -0.092 .	19 ans. produktivitet 928				-0.103	-0.196	0.009				'								2a	
-0.089 -0.023 0.102 -0.159 -0.034 0.133 -0.074 0.041 -0.012 -0.166 -0.102 0.063 -0.147 -0.105 -0.130 0.012 -0.063 -0.062 -0.106 -0.092	20 ans. engasjement 929				-0.024	0.128	-0.031													я
	21 tilstedeværelse i nye innovative markeder 930					0.133	-0.074													

### Principal component analysis 4: International vision and international commitment

Pattern Matrix	Comp	onent	
	1	2	3
vekst er motiv 514	0.733		0.344
økt fortj. er motiv 515	0.788		
verden som firmaets marked 516	0.801		
utvide akt. forsiktig 517			0.893
søker muligh. på eksp. marked 518	0.815		
evne til å tilpasse 519	0.741		
understr. viktighet av eksp. 520	0.822		
utv. mennesk. res. 521	0.732		
økn. res.innsats er tilstr. 522		0.843	
menneskelige res. er tilstr. 523		0.893	
besl. om ett eksp.marked er koordinert	0.530	0.307	
Number of valid entries (N)	273		,

Testing applicability of factor analysis	
Kaiser-Meyer-Olkin test	0.869
Bartlett's Test of Sphericity (significance)	0.000
Determinant of correlation matrix	0.005

Ant	i-Image Correlation Matrix											
		1	2	3	4	5	6	7	8	9	10	11
1	vekst er motiv 514	.825a										
2	økt fortj. er motiv 515	-0.513	.830a									
3	verden som firmaets marked 516	-0.040	-0.273	.888a								
4	utvide akt. forsiktig 517	-0.038	-0.075	0.104	.693a							
5	søker muligh. på eksp. marked 518	0.022	-0.072	-0.404	0.110	.899a						
6	evne til å tilpasse 519	0.023	-0.069	-0.031	0.047	-0.232	.936a					
7	understr. viktighet av eksp. 520	-0.139	0.022	-0.105	-0.112	-0.153	-0.227	.879a				
8	utv. mennesk. res. 521	0.003	-0.030	0.045	-0.012	-0.146	-0.191	-0.455	.889a			
9	økn. res.innsats er tilstr. 522	0.054	-0.016	0.051	0.050	-0.083	0.007	-0.034	-0.094	.752a		
10	menneskelige res. er tilstr. 523	-0.012	0.007	-0.045	-0.022	0.044	-0.051	0.134	-0.080	-0.516	.661a	
	besl. om ett eksp.marked er											
11	koordinert med andre eksp.m 524	-0.082	0.030	-0.041	0.088	-0.096	-0.007	-0.108	-0.174	-0.080	-0.126	.947a

a Measures of Sampling Adequacy(MSA)

## Principal component analysis 5: Intermediary competencies

Pattern Matrix	Component
	1
forbedre res. 901	0.839
mer konkurr.dyktige imøtekomme k. behov902	0.862
mer konkur.dyktige reagere på endrede betingelser 903	0.847
utføre salgsoppg. 904	0.865
gi kunde tekn. støtte 905	0.806
utføre service etter salg 906	0.803
sette priser 907	0.786
samle markedsinfo 908	0.818
finne nye markedsmuligh. 909	0.771
Number of valid entries (N)	211

Testing applicability of factor analysis	
Kaiser-Meyer-Olkin test	0.887
Bartlett's Test of Sphericity (significance)	0.000
Determinant of correlation matrix	0.000

		1	2	3	4	5	6	7	8	9
1	forbedre res. 901	.917a								
2	mer konkurr.dyktige imøtekomme k. behov902	-0.424	.850a							
3	mer konkur.dyktige reagere på endrede betingelser 903	0.032	-0.651	.875a						
4	utføre salgsoppg. 904	-0.275	-0.048	-0.180	.934a					
5	gi kunde tekn. støtte 905	0.072	-0.145	0.024	-0.148	.864a				
6	utføre service etter salg 906	-0.154	0.126	-0.076	0.020	-0.663	.852a			
7	sette priser 907	-0.003	-0.059	0.081	-0.201	-0.055	-0.218	.948a		
8	samle markedsinfo 908	-0.127	0.018	-0.171	0.104	-0.063	0.020	-0.244	.882a	
9	finne nye markedsmuligh. 909	0.081	-0.027	0.037	-0.271	0.072	-0.115	-0.032	-0.560	.873a

a Measures of Sampling Adequacy(MSA)

## Principal component analysis 6: Extent of network

Pattern Matrix	Compo	onent
	1	2
uni/høg/forsk.inst. 119		0.906
store bedr 120	0.693	0.421
små og m.store bedr 121	0.745	
bedr utenfor N 122	0.507	0.500
leverandører 123	0.677	
kunder 124	0.680	
Number of valid entries (N)	264	

Testing applicability of factor analysis	
Kaiser-Meyer-Olkin test	0.703
Bartlett's Test of Sphericity (significance)	0.000
Determinant of correlation matrix	0.333

Anti-Image Correlation Matrix

	1	2	3	4	5	6
1 uni/høg/forsk.inst. 119	.552a					
2 store bedr 120	-0.227	.684a				
3 små og m.store bedr 121	0.096	-0.449	.682a			
4 bedr utenfor N 122	-0.198	-0.201	-0.003	.778a		
5 leverandører 123	0.163	-0.023	-0.226	-0.139	.698a	
6 kunder 124	-0.079	-0.154	-0.080	-0.109	-0.307	.776a

a Measures of Sampling Adequacy(MSA)

## Principal component analysis 7: Cooperation orientation

		_	
Pattern Matrix	Comp	onent	
	1	2	3
vilje til å tilpasse 707	0.797		
evnen til å tilpasse 708	0.748		
ny avtale fremfor 709			0.907
utvekslet info går uformelt 710	0.465		0.358
fortrolig intern info 711		0.902	
enhver info 712		0.963	
holde hverandre inform. 713	0.779		
probl. beh. av begge parter 714	0.797		
skylde hverandre tjenester 715	0.350	0.333	
fokuserer på den enkelte handel og på forts. av samarb. 716	0.835		
Number of valid entries (N)	245		

resting applicability of factor analysis	
Kaiser-Meyer-Olkin test	0.827
Bartlett's Test of Sphericity (significance)	0.000
Determinant of correlation matrix	0.006

		1	2	3	4	5	6	7	8	9	10
1	vilje til å tilpasse 707	.821a									
2	evnen til å tilpasse 708	-0.636	.793a								
3	ny avtale fremfor 709	0.085	-0.233	.794a							
4	utvekslet info går uformelt 710	-0.175	-0.019	-0.223	.900a						
5	fortrolig intern info 711	0.076	-0.214	-0.002	-0.062	.760a					
6	enhver info 712	-0.066	0.134	-0.045	0.028	-0.679	.727a				
7	holde hverandre inform. 713	-0.167	0.043	0.147	-0.195	0.010	-0.239	.847a			
8	probl. beh. av begge parter 714	-0.020	-0.198	-0.115	0.112	0.028	0.066	-0.434	.848a		
9	skylde hverandre tjenester 715	-0.046	0.091	-0.134	-0.187	-0.175	-0.035	0.076	-0.341	.878a	
10	fokuserer på den enkelte handel og på forts. av samarb. 716	0.007	-0.142	0.119	-0.090	0.006	0.002	-0.249	-0.120	-0.096	.923a

a Measures of Sampling Adequacy(MSA)

# Principal component analysis 8: Market establishment performance and Market position performance

Pattern Matrix	Comp	onent
	1	2
oppnådd markedsandel 616	0.916	
salgsvekst 617	0.909	
salgsvekst ift konkur. 618	0.878	
inntjening 619	0.817	
image på markedet 620	0.633	
komp.bygging gj. kontakt med krevende kunder 621	0.470	0.439
kunnsk. om konkur. strategi 622		0.833
kunnsk. om nye mulige distr.kanaler 623		0.848
adgang til nye mark. 624		0.666
tot. res. av eksp.arb. 625	0.801	
Number of valid entries (N)	259	

Testing applicability of factor analysis	
Kaiser-Meyer-Olkin test	0.901
Bartlett's Test of Sphericity (significance)	0.000
Determinant of correlation matrix	0.002

		1	2	3	4	5	6	7	8	9	10
1	oppnådd markedsandel 616	.920a									
2	salgsvekst 617	-0.268	.905a								
3	salgsvekst ift konkur. 618	-0.329	-0.340	.918a							
4	inntjening 619	-0.050	-0.161	-0.076	.955a						
5	image på markedet 620	-0.084	0.058	-0.154	-0.061	.900a					
6	komp.bygging gj. kontakt med krevende kunder 621	-0.066	0.039	-0.067	-0.016	-0.475	.880a				
7	kunnsk. om konkur. strategi 622	0.123	0.067	-0.091	0.096	0.035	-0.288	.839a			
8	kunnsk. om nye mulige distr.kanaler 623	0.035	-0.047	-0.014	-0.034	-0.052	0.032	-0.309	.821a		
9	adgang til nye mark. 624	-0.059	-0.020	0.078	0.032	-0.002	-0.094	-0.107	-0.368	.892a	
10	tot. res. av eksp.arb. 625	-0.239	-0.308	-0.022	-0.215	-0.146	-0.034	-0.181	0.064	-0.255	.913a

a Measures of Sampling Adequacy(MSA)

# **Appendix C** | CORRELATION MATRICES

In this appendix the correlation matrices as well as descriptive statistics for each of the three regression models, Market establishment performance, Market position performance and International revenue growth performance, are presented.

#### Market establishment performance

Std.																
	Mean	Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Market establishment performance	4.2	1.0	1.000													
2 Company size	43.7	55.9	0.109	1.000												
3 Company age	33.7	28.6	-0.132	0.252	1.000											
4 Product competitive advantage	4.1	1.4	0.263	0.085	-0.165	1.000										
5 Innovation focus	6.9	11.5	0.030	-0.113	-0.263	0.407	1.000									
6 Financial sufficiency	4.7	1.7	-0.025	0.253	0.139	-0.124	-0.142	1.000								
7 Employee dedication and efficiency	5.0	0.9	0.121	-0.012	-0.137	0.246	0.133	-0.008	1.000							
8 International vision	5.1	1.2	0.416	0.167	-0.101	0.391	0.189	-0.085	0.217	1.000						
9 International commitment	4.5	1.3	0.354	0.133	0.077	0.069	-0.048	0.102	0.170	0.295	1.000					
10 Intermediary competencies	4.4	1.3	0.217	0.138	0.039	0.070	0.016	-0.019	0.034	0.286	0.081	1.000				
11 Extent of network	4.6	1.1	0.214	0.066	0.022	0.273	0.039	-0.057	0.111	0.341	0.026	-0.043	1.000			
12 Cooperation orientation	5.0	0.9	0.119	0.066	0.144	-0.022	0.121	0.023	0.176	0.171	0.184	0.316	0.070	1.000		
3 Market communication	4.6	0.8	0.454	0.113	-0.046	0.215	-0.006	0.008	0.333	0.299	0.406	0.071	0.128	0.141	1.000	
4 Value chain coordination	4.7	0.8	0.177	0.229	0.136	0.073	-0.017	0.197	0.183	0.226	0.239	0.158	0.058	0.248	0.364	1.00

### Market position performance

		Std.														
	Mean	Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Market position performance	4.4	1.0	1.000													
2 Company size	43.7	55.9	0.252	1.000												
3 Company age	33.7	28.6	0.012	0.252	1.000											
4 Product competitive advantage	4.1	1.4	0.215	0.085	-0.165	1.000										
5 Innovation focus	6.9	11.5	0.043	-0.113	-0.263	0.407	1.000									
6 Financial sufficiency	4.7	1.7	0.109	0.253	0.139	-0.124	-0.142	1.000								
7 Employee dedication and efficiency	5.0	0.9	0.179	-0.012	-0.137	0.246	0.133	-0.008	1.000							
8 International vision	5.1	1.2	0.394	0.167	-0.101	0.391	0.189	-0.085	0.217	1.000						
9 International commitment	4.5	1.3	0.401	0.133	0.077	0.069	-0.048	0.102	0.170	0.295	1.000					
10 Intermediary competencies	4.4	1.3	0.171	0.138	0.039	0.070	0.016	-0.019	0.034	0.286	0.081	1.000				
11 Extent of network	4.6	1.1	0.134	0.066	0.022	0.273	0.039	-0.057	0.111	0.341	0.026	-0.043	1.000			
12 Cooperation orientation	5.0	0.9	0.258	0.066	0.144	-0.022	0.121	0.023	0.176	0.171	0.184	0.316	0.070	1.000		
13 Market communication	4.6	0.8	0.438	0.113	-0.046	0.215	-0.006	0.008	0.333	0.299	0.406	0.071	0.128	0.141	1.000	
14 Value chain coordination	4.7	0.8	0.428	0.229	0.136	0.073	-0.017	0.197	0.183	0.226	0.239	0.158	0.058	0.248	0.364	1.000

## International revenue growth performance

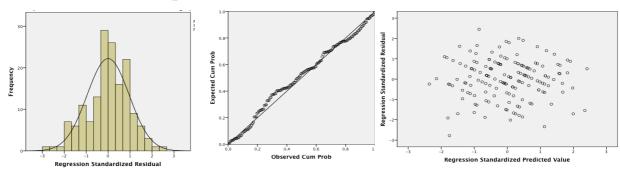
	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
International revenue growth																	
performance (LN-transformed)	-0.0	0.5	1.000														
2 Company size	38.6	27.0	0.220	1.000													
3 Company age	48.6	61.3	0.256	0.250	1.000												
4 Risk	12.3	20.6	0.367	0.008	0.426	1.000											
5 Product competitive advantage	4.1	1.4	-0.082	-0.176	0.156	0.110	1.000										
6 Innovation focus	4.9	7.5	-0.068	-0.240	-0.028	-0.122	0.449	1.000									
7 Financial sufficiency	4.9	1.7	0.213	0.081	0.250	0.004	-0.077	0.069	1.000								
8 Employee dedication and efficiency	5.0	0.9	-0.034	-0.224	0.004	0.048	0.242	0.317	-0.075	1.000							
9 International vision	5.2	1.1	0.183	-0.178	0.165	0.335	0.438	0.299	-0.079	0.189	1.000						
10 International commitment	4.6	1.2	0.047	-0.039	0.108	0.109	0.026	-0.078	0.096	0.173	0.205	1.000					
11 Intermediary competencies	4.6	1.2	0.004	0.040	0.090	0.153	0.106	0.126	-0.032	0.097	0.267	-0.017	1.000				
12 Cooperation orientation	5.1	0.9	-0.232	0.133	0.068	0.133	-0.031	0.174	0.039	0.198	0.126	0.150	0.226	1.000			
13 Extent of network	4.5	1.0	-0.082	0.046	0.067	0.071	0.256	-0.010	-0.058	0.011	0.293	-0.033	0.076	0.143	1.000		
14 Value chain coordination	4.8	0.8	-0.020	0.045	0.128	0.197	0.136	0.119	0.189	0.172	0.186	0.189	0.151	0.213	0.092	1.000	
15 Market communication	4.8	0.8	0.099	-0.155	0.127	0.225	0.261	0.192	-0.054	0.292	0.312	0.423	0.091	0.218	0.129	0.395	1.000

# **Appendix D** | PLOTS FROM MULTIPLE REGRESSION

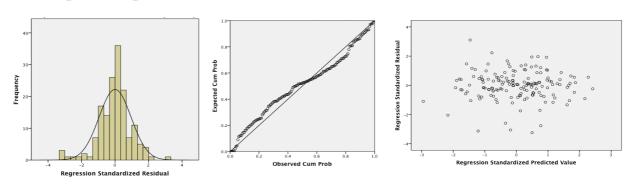
In this appendix three plots from the SPSS output for each of the three multiple regression analyses are presented. These plots are used to test the basic assumptions of multiple regression (see Section 3.4.1). Firstly, a histogram of the standardised residuals is presented, followed by a P-P plot (probability-probability plot). These plots are indicating the normality of the residuals. Finally a scatterplot of the standardised residuals versus the standardised predicted values of the dependent variable, for each of the three regression models are displayed, checking for heteroscedasticity.

Histogram P-P Plot Scatterplot

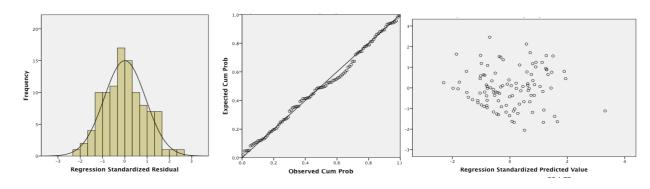
#### Market establishment performance



#### Market position performance



### International revenue growth performance



#### Normality of residuals

The distributions of the residuals are shown in the histograms and the P-P plots. The histograms of the residuals show approximately normally distributions. The straight line in the P-P plot represents a normal distribution, and the dot points represent the observed residuals. By inspection, the points are found to be distributed quite closely along the normality line, indicating that the residuals are approximately normally distributed.

#### Heteroscedasticity

The scatterplots show a random array of dots evenly dispersed around zero indicating that heteroscedasticity is not a problem.

## Appendix E | MULTIPLE **REGRESSION OUTPUT**

In this appendix the detailed SPSS output from the multiple linear regressions of the three models, Market establishment performance, Market position performance and International revenue growth performance, is presented. For each regression the Model summary, ANOVA table and Coefficients table are displayed. Descriptive statistics are incorporated in the correlation matrices presented in Appendix C. VIF values and Cook's distance from the output are presented in Section 3.4.1.

#### Regression output: Market establishment performance

Model	Summary <sup>l</sup>

Model	R	R Square	Adjusted R	Std. Error of the			Durbin-Watson			
			Square	Estimate	R Square	F Change	df1	df2	Sig. F Change	
					Change					
1	.198ª		.027	.93977	.039	3.187	2	157	.044	
2	.316 <sup>b</sup>		.076	.91551	.061	5.215	2	155	.006	
3	.316 <sup>c</sup>		.071	.91837	.000	.037	1	154	.847	
4	.320 <sup>d</sup>		.067	.91999	.003	.459	1	153	.499	
5	.518 <sup>e</sup>	.269	.230	.83590	.166	17.166	2	151	.000	
6	.541 <sup>f</sup>	.292	.240	.83058	.024	1.647	3	148	.181	
7	.602 <sup>9</sup>	.362	.306	.79387	.070	8.003	2	146	.001	2.137

- b. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus
- c. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency
- d. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency
- e. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision
- f. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation
- g. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation, Value chain coordination, Market
- h. Dependent Variable: Market establishment performance

Model		Sum of	df	Mean Square	F	Sig.
		Squares				
	Regression	5.629	2	2.814	3.187	.044 <sup>b</sup>
1	Residual	138.659	157	.883		
	Total	144.287	159			
	Regression	14.371	4	3.593	4.287	.003 <sup>c</sup>
2	Residual	129.916	155	.838		
	Total	144.287	159			
	Regression	14.403	5	2.881	3.415	.006 <sup>d</sup>
3	Residual	129.884	154	.843		
	Total	144.287	159			
	Regression	14.791	6	2.465	2.913	.010 <sup>e</sup>
4	Residual	129.496	153	.846		
	Total	144.287	159			
	Regression	38.779	8	4.847	6.937	.000 <sup>f</sup>
5	Residual	105.508	151	.699		
	Total	144.287	159			
	Regression	42.187	11	3.835	5.559	.000 <sup>g</sup>
6	Residual	102.100	148	.690		
	Total	144.287	159			
	Regression	52.274	13	4.021	6.380	.000 <sup>h</sup>
7	Residual	92.013	146	.630		
	Total	144.287	159			

- a. Dependent Variable: Market establishment performance
- b. Predictors: (Constant), Age, Size
- c. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus d. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency
- e. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency
- f. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision
- g. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation
- h. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation, Value chain coordination, Market communication

			dardized	Standardized		
Model			cients	Coefficients	t	Sig.
		В	Std. Error	Beta	,	o.g.
1	(Constant)	4.292 0.003	0.121	0.153	35.467	0.063
	Size Age	-0.003	0.001 0.003	0.152 -0.171	1.874 -2.109	0.063
	(Constant)	3.573	0.261		13.681	C
	Size Age	0.002 -0.005	0.001 0.003	0.109 -0.142	1.366 -1.745	0.174 0.083
2	Product					
	competitive advantage	0.19	0.059	0.274	3.229	0.002
	Innovation focus (Constant)	-0.009 3.615	0.007 0.341	-0.106	-1.236 10.603	0.218
	Size	0.002	0.001	0.113	1.368	0.173
	Age Product	-0.005	0.003	-0.142	-1.73	0.086
3	competitive	0.189	0.059	0.272	3.18	0.002
	advantage Innovation focus	-0.009	0.007	-0.107	-1.24	0.217
	Financial	-0.009	0.044	-0.015	-0.193	0.847
	sufficiency (Constant)	3.382	0.485		6.977	C
	Size	0.002	0.001	0.114	1.376	0.171
	Age Product	-0.005	0.003	-0.137	-1.657	0.1
	competitive	0.181	0.061	0.26	2.964	0.004
4	advantage Innovation focus	-0.009	0.007	-0.108	-1.25	0.213
	Financial	-0.01	0.044	-0.018	-0.22	0.826
	sufficiency Employee	0.01	0.011	0.010	0.22	0.020
	dedication and	0.054	0.08	0.054	0.677	0.499
	efficiency (Constant)	2.099	0.495		4.237	C
	Size	0.001	0.001	0.039	0.516	0.607
	Age	-0.005	0.003	-0.138	-1.83	0.069
	Product competitive	0.109	0.058	0.157	1.888	0.061
	advantage					
	Innovation focus Financial	-0.009	0.007	-0.104	-1.315	0.191
5	sufficiency	-0.008	0.041	-0.015	-0.206	0.837
	Employee dedication and	-0.029	0.074	-0.029	-0.389	0.698
	efficiency	0.020	0.01	0.020	0.000	0.000
	International vision	0.226	0.065	0.28	3.453	0.00
	International	0.198	0.055	0.268	3.581	C
	commitment	1.469		0.200	2.48	
	(Constant) Size	0.001	0.592 0.001	0.029	0.384	0.014 0.70
	Age	-0.005	0.003	-0.157	-2.058	0.04
	Product competitive	0.101	0.059	0.146	1.71	0.089
	advantage					
	Innovation focus Financial	-0.008	0.007	-0.099	-1.226	0.22
	sufficiency	-0.005	0.04	-0.01	-0.136	0.89
	Employee dedication and	-0.036	0.075	-0.036	-0.482	0.63
6	efficiency	-0.030	0.075	-0.030	-0.402	0.03
	International vision	0.165	0.071	0.204	2.323	0.02
	International	0.204	0.056	0.276	3.671	
	commitment Intermediary	0.204	0.030	0.270	3.07 1	`
	competencies	0.091	0.055	0.127	1.644	0.10
	Extent of network	0.099	0.069	0.11	1.433	0.15
	Cooperation	0.028	0.079	0.028	0.361	0.71
	orientation (Constant)	0.824	0.607		1.357	0.17
	Size	0	0.001	0.017	0.225	0.82
	Age Product	-0.005	0.002	-0.138	-1.874	0.06
	competitive	0.075	0.057	0.108	1.314	0.19
	advantage Innovation focus	-0.005	0.006	-0.065	-0.842	0.40
	Financial	0.000	0.039	0.000	0.003	0.99
	sufficiency Employee	0	0.055	O	0.003	0.55
	dedication and	-0.104	0.074	-0.104	-1.414	0.16
-	efficiency , International	0.141	0.068	0.174	2.06	0.04
/	vision International					
	commitment	0.132	0.056	0.18	2.36	0.02
	Intermediary competencies	0.096	0.053	0.134	1.815	0.07
	Extent of network	0.092	0.066	0.102	1.391	0.16
	Cooperation	0.016	0.076	0.016	0.216	0.829
	orientation Market					
	communication	0.365	0.093	0.317	3.937	(
	Value chain	-0.031	0.087	-0.027	-0.356	0.722

#### Regression output: Market position performance

Model Summary

Model	R	R Square	Adjusted R	Std. Error of the		Change Statistics					
			Square	Estimate	R Square	F Change	df1	df2	Sig. F Change		
					Change						
1	.257 <sup>a</sup>	.066	.054	.99151	.066	5.574	2	157	.005		
2	.319 <sup>b</sup>	.101	.078	.97892	.035	3.032	2	155	.051		
3	.328 <sup>c</sup>	.107	.078	.97880	.006	1.037	1	154	.310		
4	.354 <sup>d</sup>	.126	.091	.97197	.018	3.173	1	153	.077		
5	.534 <sup>e</sup>	.285	.247	.88458	.160	16.861	2	151	.000		
6	.557 <sup>f</sup>	.310	.259	.87801	.025	1.757	3	148	.158		
7	.628 <sup>g</sup>	.394	.340	.82845	.084	10.118	2	146	.000	2.096	

- a. Predictors: (Constant), Age, Size
- b. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus
- c. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency
- d. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency
- e. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision
- f. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency,
- International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation
  g. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency,
  International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation, Value chain coordination, Market
- h. Dependent Variable: Market position performance

Mode	I	Sum of	df	Mean Square	F	Sig.
		Squares				
	Regression	10.960	2	5.480	5.574	.005 <sup>b</sup>
1	Residual	154.346	157	.983		
	Total	165.306	159			
	Regression	16.772	4	4.193	4.376	.002 <sup>c</sup>
2	Residual	148.534	155	.958		
	Total	165.306	159			
	Regression	17.765	5	3.553	3.709	.003 <sup>d</sup>
3	Residual	147.541	154	.958		
	Total	165.306	159			
	Regression	20.763	6	3.460	3.663	.002 <sup>e</sup>
4	Residual	144.543	153	.945		
	Total	165.306	159			
	Regression	47.150	8	5.894	7.532	.000 <sup>f</sup>
5	Residual	118.156	151	.782		
	Total	165.306	159			
	Regression	51.214	11	4.656	6.039	.000 <sup>g</sup>
6	Residual	114.092	148	.771		
	Total	165.306	159			
	Regression	65.102	13	5.008	7.297	.000 <sup>h</sup>
7	Residual	100.204	146	.686		
	Total	165.306	159			

- a. Dependent Variable: Market position performance
   b. Predictors: (Constant), Age, Size
   c. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus d. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus,
- a. Predictors: (Constant), Age, Size, Product competitive advantage, innovation focus, Financial sufficiency
  e. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency
  f. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision
- International vision, g. Predictors; (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation
- h. Predictors: (Constant), Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitm International vision, Intermediary competencies, Extent of network, Cooperation orientation, Value chain coordination, Market communication

		oefficients <sup>a</sup> dardized	Standardized		
Model		icients	Coefficients	t	Sig.
	В	Std. Error	Beta		3
(Constant)	4.223	0.128	0.000	33.075	0
1 Size Age	0.005 -0.002		0.266 -0.055	3.335 -0.692	0.001 0.49
(Constant)	3.61	0.279		12.928	0
Size	0.004 -0.001	0.001 0.003	0.238 -0.02	2.984 -0.241	0.003 0.81
Age 2 Product	-0.001	0.003	-0.02	-0.241	0.61
competitive	0.147	0.063	0.197	2.33	0.021
advantage Innovation focu	s -0.001	0.008	-0.016	-0.181	0.856
(Constant)	3.373		-0.010	9.283	0.030
Size	0.004		0.218	2.656	0.009
Age Product	-0.001	0.003	-0.023	-0.284	0.777
3 competitive	0.154	0.063	0.207	2.427	0.016
advantage	0.001	0.000	0.044	0.407	0.000
Innovation focu Financial		0.008	-0.011	-0.127	0.899
sufficiency	0.048		0.081	1.018	0.31
(Constant)	2.726 0.004		0.22	5.322 2.7	0 0.008
Size Age	0.004		-0.01	-0.12	0.008
Product					
competitive	0.13	0.064	0.175	2.02	0.045
4 advantage Innovation focu	s -0.001	0.008	-0.014	-0.16	0.873
Financial	0.045	0.047	0.076	0.953	0.342
sufficiency	0.010	0.011	0.070	0.000	0.012
Employee dedication and	0.15	0.084	0.14	1.781	0.077
efficiency					
(Constant) Size	1.41 0.003	0.524 0.001	0.15	2.688 1.989	0.008 0.048
Age	0.003	0.001	-0.014	-0.187	0.852
Product					
competitive advantage	0.06	0.061	0.081	0.985	0.326
Innovation focu	s -0.001	0.007	-0.007	-0.087	0.931
5 Financial	0.044	0.043	0.074	1.021	0.309
sufficiency Employee					
dedication and	0.063	0.078	0.058	0.803	0.423
efficiency					
International vision	0.214	0.069	0.247	3.085	0.002
International	0.226	0.050	0.286	2 062	0
commitment			0.200	3.863	
(Constant) Size	0.767 0.003	0.626 0.001	0.147	1.224 1.949	0.223 0.053
Age	-0.002		-0.046	-0.616	0.539
Product				4.000	
competitive advantage	0.082	0.063	0.11	1.308	0.193
Innovation focu	s -0.004	0.007	-0.039	-0.497	0.62
Financial	0.044	0.043	0.075	1.032	0.304
sufficiency Employee					
6 dedication and	0.033	0.079	0.031	0.417	0.678
efficiency					
International vision	0.189	0.075	0.218	2.516	0.013
International	0.211	0.059	0.267	3.59	0
commitment	0.211	0.055	0.207	5.55	
Intermediary competencies	0.007	0.058	0.01	0.126	0.9
Extent of netwo	rk 0.005	0.073	0.006	0.073	0.942
Cooperation		0.010	0.000	0.070	0.012
orientation	0.179	0.083	0.165	2.143	0.034
(Constant)	-0.264			-0.416	0.678
Size Age	0.002 -0.002		0.112 -0.054	1.563 -0.749	0.12 0.455
Product	-0.002	0.003	-0.054	-0.745	0.433
competitive	0.061	0.059	0.082	1.019	0.31
advantage Innovation focu	s -0.001	0.007	-0.013	-0.174	0.862
Financial	0.027		0.045	0.649	0.517
sufficiency	0.027	0.041	0.043	0.043	0.517
Employee dedication and	-0.043	0.077	-0.04	-0.558	0.578
efficiency	0.040	0.077	0.04	0.000	0.070
7 International	0.145	0.071	0.168	2.036	0.044
vision International					
commitment	0.143	0.059	0.181	2.448	0.016
Intermediary	0.004	0.055	0.005	0.065	0.948
competencies					
Extent of netwo	rk 0.005	0.069	0.005	0.07	0.944
Cooperation	0.132	0.08	0.122	1.658	0.1
orientation Market		0.00-		0 ===	0.01-
communication	0.243	0.097	0.197	2.507	0.013
Value chain	0.267	0.091	0.218	2.938	0.004
coordination		I			

#### Regression output: International revenue growth performance

	_	- h
Model	Sum	marv'

Model	R	R Square	Adjusted R	Std. Error of the		Change Statistics					
			Square	Estimate	R Square	F Change	df1	df2	Sig. F Change		
					Change						
1	.430a	.185	.160	.47922	.185	7.625	3	101	.000		
2	.447 <sup>b</sup>	.200	.159	.47960	.015	.920	2	99	.402		
3	.477 <sup>c</sup>	.228	.181	.47346	.028	3.584	1	98	.061		
4	.477 <sup>d</sup>	.228	.172	.47586	.000	.016	1	97	.899		
5	.504 <sup>e</sup>	.254	.184	.47259	.026	1.673	2	95	.193		
6	.631 <sup>†</sup>	.398	.319	.43162	.143	7.298	3	92	.000		
7	.661 <sup>g</sup>	.436	.349	.42211	.039	3.095	2	90	.050	1.229	

- a. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size
- $b.\ Predictors: (Constant),\ Standard\_deviation\_export\_growth\_04\_09,\ Age,\ Size,\ Product\ competitive\ advantage,\ Innovation\ focus$
- c. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency
- d. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency
- e. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision
- f. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation g. Predictors: (Constant), Standard deviation export growth 04 09, Age, Size, Product competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation, Value chain coordination, Market communication
- h. Dependent Variable: International revenue growth performance

Model		Sum of	df	Mean Square	F	Sig.
		Squares				
	Regression	5.254	3	1.751	7.625	.000 <sup>b</sup>
1	Residual	23.195	101	.230		
	Total	28.449	104			
	Regression	5.677	5	1.135	4.936	.000°
2	Residual	22.772	99	.230		
	Total	28.449	104			
	Regression	6.480	6	1.080	4.818	.000 <sup>d</sup>
3	Residual	21.969	98	.224		
	Total	28.449	104			
	Regression	6.484	7	.926	4.091	.001 <sup>e</sup>
4	Residual	21.965	97	.226		
	Total	28.449	104			
	Regression	7.231	9	.803	3.598	.001 <sup>f</sup>
5	Residual	21.217	95	.223		
	Total	28.449	104			
	Regression	11.310	12	.942	5.059	.000 <sup>g</sup>
6	Residual	17.139	92	.186		
	Total	28.449	104			
	Regression	12.413	14	.887	4.976	.000 <sup>h</sup>
7	Residual	16.036	90	.178		
	Total	28.449	104			

- a. Dependent Variable: International revenue growth performance
  b. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size
  c. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product
  competitive advantage, Innovation focus
  d. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product
  competitive advantage, Innovation focus, Financial sufficiency
  e. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product
  competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and
  efficiency, International commitment, International vision
  g. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product
  competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and
  efficiency, International commitment, International vision
  g. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product
  competitive advantage, Innovation focus, Financial sufficiency, Employee dedication and
  efficiency, International commitment, International vision, Intermediary competencies,
  Extent of network, Cooperation orientation
  h. Predictors: (Constant), Standard\_deviation\_export\_growth\_04\_09, Age, Size, Product
- Extent on Intervoir, Cooperation International export\_growth\_04\_09, Age, Size, Product ompetitive advantage, Innovation focus, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation, Value chain coordination, Market communication

			oefficients*			
Model			dardized icients	Standardized Coefficients	t	Sig.
	(0 1 1)	В	Std. Error	Beta	0.070	
	(Constant) Age	-0.285 0.004	0.087 0.002	0.202	-3.273 2.159	0.001 0.033
1	Size Standard deviation	0.001	0.001	0.061	0.588	0.558
	Standard_deviation_ export_growth_04_0 9	0.009	0.003	0.34	3.4	0.001
	(Constant)	-0.112	0.173		-0.651	0.516
	Age Size	0.004 0.001	0.002 0.001	0.193 0.079	1.983 0.756	0.05 0.452
	Standard_deviation_					
2	export_growth_04_0 9	0.009	0.003	0.358	3.514	0.001
	Product competitive advantage	-0.051	0.039	-0.138	-1.33	0.187
	Innovation focus	0.006	0.007	0.086	0.821	0.413
	(Constant) Age	-0.4 0.004	0.228 0.002	0.192	-1.752 1.999	0.083 0.048
	Size	0	0.001	0.022	0.205	0.838
3	Standard_deviation_ export_growth_04_0	0.01	0.003	0.374	3.713	0
	Product competitive advantage	-0.039	0.039	-0.106	-1.015	0.313
	Innovation focus Financial sufficiency	0.004 0.054	0.007 0.028	0.059 0.178	0.567 1.893	0.572 0.061
	(Constant)	-0.434	0.354		-1.228	0.223
	Age Size	0.004 0	0.002 0.001	0.194 0.022	1.986 0.2	0.05 0.842
	Standard_deviation_					
	export_growth_04_0 9	0.009	0.003	0.374	3.681	0
4	Product competitive advantage	-0.04	0.039	-0.107	-1.017	0.312
	Innovation focus	0.004	0.008	0.056	0.519	0.605
	Financial sufficiency Employee	0.054	0.029	0.179	1.888	0.062
	dedication and efficiency	0.007	0.054	0.012	0.127	0.899
	(Constant) Age	-0.786 0.004	0.415 0.002	0.209	-1.894 2.14	0.061 0.035
	Size	0	0.001	0.018	0.166	0.868
	Standard_deviation_ export_growth_04_0 9	0.008	0.003	0.313	2.941	0.004
	Product competitive	-0.061	0.04	-0.163	-1.503	0.136
5	advantage Innovation focus	0.001	0.008	0.011	0.103	0.918
	Financial sufficiency Employee	0.06	0.029	0.197	2.074	0.041
	dedication and efficiency	0.009	0.055	0.016	0.168	0.867
	International vision International	0.096	0.053	0.201	1.829	0.07
	commitment	-0.016	0.04	-0.038	-0.406	0.686
	(Constant) Age	0.148 0.006	0.436 0.002	0.307	0.34 3.352	0.734 0.001
	Size	-9.50E-07	0.001	0	-0.001	0.999
	Standard_deviation_ export_growth_04_0	0.009	0.003	0.373	3.778	0
	9 Product competitive	-0.083	0.038	-0.224	-2.159	0.033
	advantage Innovation focus	0.007	0.007	0.104	0.982	0.329
	Financial sufficiency	0.06	0.026	0.198	2.28	0.025
	Employee dedication and	0.047	0.051	0.084	0.924	0.358
	efficiency International vision	0.123	0.051	0.258	2.42	0.017
	International	0.001	0.037	0.001	0.017	0.987
	commitment Intermediary	-0.014	0.037	-0.033	-0.377	0.707
	competencies Cooperation					
	orientation Extent of network	-0.224 -0.035	0.053 0.045	-0.387 -0.071	-4.231 -0.786	0 0.434
	(Constant)	0.056	0.461		0.122	0.903
	Age Size	0.007 0	0.002 0.001	0.34 -0.019	3.756 -0.194	0 0.847
	Standard_deviation_ export_growth_04_0	0.009	0.002	0.37	3.778	0
	9 Product competitive			2 222	0.07-	0.00-
	advantage Innovation focus	-0.086 0.006	0.038 0.007	-0.232 0.086	-2.277 0.82	0.025 0.414
	Financial sufficiency	0.006	0.007	0.086	2.855	0.414
	Employee dedication and	0.045	0.05	0.08	0.894	0.374
7	refficiency International vision	0.124	0.05	0.259	2.486	0.015
	International commitment	-0.025	0.04	-0.059	-0.623	0.535
	Intermediary	-0.008	0.036	-0.02	-0.232	0.817
	competencies Cooperation	-0.226	0.052	-0.391	-4.333	0
	orientation Extent of network	-0.226	0.052	-0.391	-4.333 -0.911	0.365
	Market	0.146	0.069	0.215	2.11	0.038
	communication Value chain	-0.114	0.06	-0.174	-1.908	0.06
	coordination	-0.114	0.00	-0.174	-1.500	0.00

#### Regression output: International revenue growth performance 04-08

Model Summary

Model	R	R Square	Adjusted R	Std. Error of the		Change Statistics				
			Square	Estimate	R Square	F Change	df1	df2	Sig. F Change	
					Change					
1	.393 <sup>a</sup>		.131	.66974	.154	6.559	3	108	.000	
2	.431 <sup>b</sup>		.148	.66319	.032	2.072	2	106	.131	
3	.444 <sup>c</sup>		.152	.66161	.012	1.510	1	105	.222	
4	.446 <sup>d</sup>	.199	.145	.66411	.002	.210	1	104	.648	
5	.488 <sup>e</sup>	.239	.171	.65383	.040	2.648	2	102	.076	
6	.588 <sup>f</sup>	.346	.267	.61496	.108	5.435	3	99	.002	
7	.603 <sup>g</sup>	.363	.271	.61308	.017	1.304	2	97	.276	1.552

- a. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size
- b. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage
- c. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency
- d. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency, Employee dedication and efficiency
- e. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision
- f. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation
- g. Predictors: (Constant), Standard deviation absolute 04 08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, Intermediary competencies, Extent of network, Cooperation orientation, Value chain coordination, Market communication
- h. Dependent Variable: International revenue growth performance, 04-08

			ANUVA			
Mode	el	Sum of	df	Mean Square	F	Sig.
		Squares				
	Regression	8.826	3	2.942	6.559	.000 <sup>b</sup>
1	Residual	48.444	108	.449		
	Total	57.270	111			
	Regression	10.648	5	2.130	4.842	.000°
2	Residual	46.622	106	.440		
	Total	57.270	111			
	Regression	11.309	6	1.885	4.306	.001 <sup>d</sup>
3	Residual	45.961	105	.438		
	Total	57.270	111			
	Regression	11.402	7	1.629	3.693	.001 <sup>e</sup>
4	Residual	45.868	104	.441		
	Total	57.270	111			
	Regression	13.665	9	1.518	3.552	.001 <sup>f</sup>
5	Residual	43.605	102	.427		
	Total	57.270	111			
	Regression	19.831	12	1.653	4.370	.000 <sup>g</sup>
6	Residual	37.439	99	.378		
	Total	57.270	111			
	Regression	20.811	14	1.486	3.955	.000 <sup>h</sup>
7	Residual	36.459	97	.376		
	Total	57.270	111			

- a. Dependent Variable: International revenue growth performance, 04-08 b. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size c. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage d. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency e. Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency, Employee dedication and efficiency

- Tocus, Product competitive advantage, Financial sufficiency, Employee dedication and efficiency of Product Competitive advantage, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision g, Predictors: (Constant), Standard\_deviation\_absolute\_04\_08, Age, Size, Innovation focus, Product competitive advantage, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision product competitive advantage, Financial sufficiency, Employee dedication and efficiency, International commitment, International vision, International commitment, International vision, International commitment, International sufficiency, Employee dedication and efficiency, International commitment, International vision, Internation

			efficients <sup>a</sup> dardized	Standardized		
Model			cients	Coefficients	t	Sig.
iviouci		В	Std. Error	Beta	·	Oig.
	Constant) Age	-0.269 0.006	0.115 0.002	0.236	-2.343 2.577	0.021 0.011
1.5	Size	0.000	0.002	0.230	0.901	0.369
	Standard_deviation absolute_04_08	0.005	0.002	0.248	2.597	0.011
(	Constant)	0.13 0.006	0.233 0.003	0.208	0.559 2.209	0.577 0.029
8	Age Size	0.006	0.003	0.206	1.229	0.029
	Standard_deviation absolute_04_08	0.006	0.002	0.271	2.811	0.006
F	Product	0.40=	0.050	0.005		
	competitive advantage	-0.107	0.052	-0.205	-2.03	0.045
	nnovation focus	0.007	0.01 0.312	0.075	0.745 -0.404	0.458 0.687
	Constant) Age	-0.126 0.006	0.002	0.209	2.222	0.028
	Size Standard_deviation	0.001	0.001	0.088	0.853	0.396
_	absolute_04_08	0.006	0.002	0.279	2.894	0.005
	Product competitive	-0.097	0.053	-0.187	-1.827	0.071
	advantage	0.006	0.01	0.061	0 606	0.546
	nnovation focus inancial	0.008	0.01 0.039	0.061	0.606 1.229	0.546
	sufficiency Constant)	-0.29	0.475	0.113	-0.609	0.544
À	∖ge ´	0.006	0.003	0.214	2.252	0.026
	Size Standard_deviation	0.001	0.001	0.088	0.858	0.393
_	absolute_04_08	0.006	0.002	0.272	2.785	0.006
, c	Product competitive	-0.099	0.053	-0.19	-1.851	0.067
a	ndvantage nnovation focus	0.005	0.01	0.051	0.484	0.629
	inancial	0.003	0.039	0.031	1.247	0.029
	sufficiency Employee	0.043	0.055	0.113	1.247	0.213
C	dedication and	0.034	0.074	0.043	0.458	0.648
	efficiency Constant)	-0.855	0.559		-1.529	0.129
Ä	\ge	0.006	0.003	0.239	2.536	0.013
	Size Standard_deviation	0.001	0.001	0.08	0.784	0.435
_	absolute_04_08	0.004	0.002	0.2	1.982	0.05
	Product competitive	-0.133	0.055	-0.256	-2.428	0.017
a	ndvantage nnovation focus	-0.001	0.01	-0.01	-0.094	0.925
	inancial	0.061	0.039	0.143	1.559	0.925
	sufficiency Employee	0.001	0.055	0.143	1.555	0.122
C	dedication and	0.05	0.074	0.064	0.675	0.501
	efficiency nternational vision	0.157	0.069	0.247	2.287	0.024
li	nternational	-0.046	0.052	-0.081	-0.879	0.382
	commitment Constant)	0.206	0.606		0.34	0.734
	Age Bize	0.009 0.001	0.002 0.001	0.325 0.069	3.545 0.716	0.001 0.476
5	Standard_deviation	0.001	0.001	0.009	2.409	0.470
	_absolute_04_08 Product	0.000	0.002	0.202	2.400	0.010
C	competitive	-0.149	0.053	-0.287	-2.782	0.006
	ndvantage nnovation focus	0.006	0.01	0.057	0.541	0.589
F	inancial	0.061	0.037	0.145	1.677	0.097
	sufficiency Employee					
	dedication and	0.093	0.071	0.119	1.317	0.191
li li	efficiency nternational vision	0.172	0.07	0.27	2.471	0.015
	nternational commitment	-0.021	0.051	-0.038	-0.418	0.677
li	ntermediary	0.022	0.053	0.036	0.416	0.678
	competencies Extent of network	-0.06	0.062	-0.088	-0.965	0.337
(	Cooperation	-0.267	0.072	-0.339	-3.691	0.007
	orientation Constant)	0.279	0.653	0.000	0.427	0.671
À	\ge ′	0.009	0.002	0.346	3.738	0
	Size Standard_deviation	0.001	0.001	0.059	0.615	0.54
	absolute_04_08	0.005	0.002	0.237	2.409	0.018
	Product competitive	-0.145	0.054	-0.28	-2.703	0.008
а	advantage nnovation focus	0.005	0.01	0.051	0.477	0.634
F	inancial	0.005	0.01	0.051	2.015	0.634
E	sufficiency Employee	5.570	5.000	0.179	2.010	5.047
7 0	dedication and	0.096	0.071	0.122	1.35	0.18
	efficiency nternational vision	0.173	0.069	0.271	2.49	0.014
li	nternational	-0.028	0.056	-0.049	-0.506	0.614
	commitment ntermediary					
C	competencies	0.03	0.053	0.049	0.566	0.573
	Extent of network Cooperation	-0.064 -0.256	0.063 0.073	-0.094 -0.326	-1.027 -3.514	0.307 0.001
	orientation Market					
C	communication	0.086	0.099	0.091	0.863	0.39
١.	/alue chain	-0.133	0.085	-0.148	-1.564	0.121

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## Appendix F | CURVILINEARITY

In this appendix the coefficients from the SPSS output when testing for curvilinear relations are presented. Firstly, the results for the variable *extent of network* are presented, followed by the results for *innovation focus*. As can be seen, the quadratic variables *Squared\_Extent\_of\_Network\_Centred* and *Squared\_Innovation\_Focus\_Centred* are found to be insignificant (see Section 4.3.2 for further details).

Extent of network: Market establishment performance

	(Constant)	В	Std. Error	Coefficients	t	Sig.
	1 Age		Stu. LITOI	Beta		
		4.292	0.121		35.467	(
:		-0.006	0.003	-0.171	-2.109	0.037
:	Size	0.003 3.573	0.001 0.261	0.152	1.874	0.063
:	(Constant) Age	-0.005	0.201	-0.142	13.681 -1.745	0.083
•	Size 2 Product competitive	0.002	0.001	0.109	1.366	0.174
	Product competitive	0.19	0.059	0.274	3.229	0.002
	advantage					
	Innovation focus (Constant)	-0.009 3.615	0.007 0.341	-0.106	-1.236 10.603	0.218
	(Constant) Age	-0.005	0.003	-0.142	-1.73	0.086
	Size	0.002	0.001	0.113	1.368	0.173
:	3 Product competitive	0.189	0.059	0.272	3.18	0.002
	advantage Innovation focus	-0.009	0.007	-0.107	-1.24	0.21
	Financial sufficiency	-0.009	0.007	-0.107	-0.193	0.21
	(Constant)	3.382	0.485		6.977	(
	Age	-0.005	0.003	-0.137	-1.657	0.1
	Size	0.002	0.001	0.114	1.376	0.17
	Product competitive advantage	0.181	0.061	0.26	2.964	0.004
	Innovation focus	-0.009	0.007	-0.108	-1.25	0.213
	Financial sufficiency	-0.01	0.044	-0.018	-0.22	0.826
	Employee					
	dedication and	0.054	0.08	0.054	0.677	0.49
	efficiency (Constant)	2.099	0.495		4.237	
	Age	-0.005	0.003	-0.138	-1.83	0.06
	Size	0.001	0.001	0.039	0.516	0.60
	Product competitive	0.109	0.058	0.157	1.888	0.06
	advantage Innovation focus	-0.009	0.007	-0.104	-1.315	0.19
	5 Financial sufficiency	-0.009	0.007	-0.104	-0.206	0.19
	Employee	-0.000	0.041	-0.010	-0.200	0.00
	dedication and	-0.029	0.074	-0.029	-0.389	0.69
	efficiency					
	International vision	0.226	0.065	0.28	3.453	0.00
	International commitment	0.198	0.055	0.268	3.581	
	(Constant)	1.923	0.581		3.313	0.00
	Age	-0.005	0.003	-0.157	-2.037	0.04
	Size	0.001	0.001	0.03	0.385	0.70
	Product competitive advantage	0.101	0.06	0.145	1.691	0.09
	Innovation focus	-0.008	0.007	-0.098	-1.22	0.22
	Financial sufficiency	-0.005	0.041	-0.01	-0.133	0.89
	Employee					
	dedication and	-0.035	0.077	-0.035	-0.461	0.64
	efficiency 6 International vision	0.164	0.071	0.203	2.31	0.02
,	International					
	commitment	0.204	0.056	0.276	3.621	
	Intermediary	0.091	0.056	0.127	1.639	0.10
	competencies			****		
	Cooperation orientation	0.028	0.079	0.028	0.358	0.72
	Extent_of_network_	0.000	0.000	0.44	4 407	0.45
	Centred	0.099	0.069	0.11	1.427	0.15
	Squared_Extent_of_	0.002	0.048	0.003	0.039	0.96
	network_Centred	1.241	0.597		2.08	0.03
	(Constant) Age	-0.005	0.002	-0.137	-1.845	0.03
	Size	0.000	0.001	0.017	0.233	0.81
	Product competitive	0.074	0.058	0.107	1.29	0.19
	advantage					
	Innovation focus	-0.005 0	0.006 0.039	-0.065 0.001	-0.835 0.01	0.40 0.99
	Financial sufficiency Employee	U	0.039	0.001	0.01	0.98
	dedication and	-0.102	0.075	-0.102	-1.355	0.17
	efficiency					
	International vision	0.141	0.069	0.174	2.046	0.04
	International 7 commitment	0.132	0.057	0.178	2.318	0.02
	Intermediary					
	competencies	0.096	0.053	0.134	1.812	0.07
	Cooperation	0.016	0.077	0.016	0.211	0.83
	orientation	0.010	0.011	0.010	0.211	0.03
	Extent_of_network_	0.092	0.066	0.103	1.391	0.16
	Centred Squared_Extent_of_					
	network Centred	0.005	0.046	0.008	0.118	0.90
	Market	0.365	0.093	0.318	3.925	
	communication	0.305	0.093	0.318	3.925	
	Value chain coordination	-0.032	0.088	-0.028	-0.363	0.71

a. Dependent Variable: Market establishment performance

## Extent of network: Market position performance

Andal			Unstand	lardized cients	Standardized Coefficients		
odel			В	Std. Error	Beta	t	Sig.
		(Constant)	4.223	0.128		33.075	
	1	Age Size	-0.002 0.005	0.003 0.001	-0.055 0.266	-0.692 3.335	0.4
		(Constant)	3.61	0.001	0.200	12.928	0.00
		Age	-0.001	0.003	-0.02	-0.241	0.8
	2	Size	0.004	0.001	0.238	2.984	0.0
		Product competitive advantage	0.147	0.063	0.197	2.33	0.0
		Innovation focus	-0.001	0.008	-0.016	-0.181	0.8
		(Constant)	3.373	0.363		9.283	
		Age Size	-0.001 0.004	0.003 0.002	-0.023 0.218	-0.284 2.656	0.7 0.0
		Product competitive					
	3	advantage	0.154	0.063	0.207	2.427	0.0
		Innovation focus	-0.001	0.008	-0.011	-0.127	0.8
		Financial sufficiency	0.048	0.047	0.081	1.018	0.
		(Constant)	2.726	0.512		5.322	
		Age	0	0.003	-0.01	-0.12	0.9
		Size	0.004	0.001	0.22	2.7	0.0
		Product competitive advantage	0.13	0.064	0.175	2.02	0.0
	4	Innovation focus	-0.001	0.008	-0.014	-0.16	0.8
		Financial sufficiency	0.045	0.047	0.076	0.953	0.3
		•					
		Employee dedication and efficiency	0.15	0.084	0.14	1.781	0.0
		(Constant)	1.41	0.524		2.688	0.0
		Age Size	0.003	0.003 0.001	-0.014 0.15	-0.187 1.989	8.0 0.0
		Product competitive					
		advantage	0.06	0.061	0.081	0.985	0.3
		Innovation focus	-0.001	0.007	-0.007	-0.087	0.9
	5	Financial sufficiency	0.044	0.043	0.074	1.021	0.3
		Employee dedication and	0.063	0.078	0.058	0.803	0.4
		efficiency	0.000	0.070	0.000	0.000	0.
		International vision	0.214	0.069	0.247	3.085	0.0
		International commitment	0.226	0.058	0.286	3.863	
		(Constant)	0.76	0.613		1.239	0.2
		Age	-0.002	0.003	-0.043	-0.568	0.5
		Size	0.003	0.001	0.149	1.969	0.0
		Product competitive	0.079	0.063	0.106	1.253	0.2
		advantage Innovation focus	-0.003	0.007	-0.038	-0.482	0.6
		Financial sufficiency	0.045	0.043	0.076	1.049	0.2
		Employee					
		dedication and efficiency	0.04	0.081	0.037	0.496	0.6
	6	International vision	0.187	0.075	0.216	2.485	0.0
		International	0.208	0.059	0.263	3.491	0.0
		commitment	0.200	0.000	0.200	0.401	0.0
		Intermediary competencies	0.008	0.059	0.01	0.137	3.0
		Cooperation	0.177	0.084	0.164	2.118	0.0
		orientation	0.177	0.004	0.104	2.110	0.0
		Squared_Extent_of	0.022	0.05	0.031	0.432	0.6
		_network_Centred Extent_of_network_	0.000	0.070	0.000	0.40.	
		Centred	0.008	0.073	0.008	0.104	0.9
		(Constant)	-0.259 -0.002	0.623	-0.051	-0.416 -0.712	0.6
		Age Size	-0.002 0.002	0.003 0.001	-0.051 0.113	-0.712 1.575	0.4 0.1
		Product competitive	0.059	0.06	0.079	0.981	
		advantage					0.3
		Innovation focus	-0.001	0.007	-0.012	-0.164	0.
		Financial sufficiency	0.027	0.041	0.046	0.664	0.5
		Employee					
		dedication and efficiency	-0.038	0.079	-0.036	-0.487	0.6
		International vision	0.144	0.072	0.167	2.015	0.0
	7	International commitment	0.141	0.059	0.179	2.383	0.0
		Intermediary	0.004	0.055	0.005	0.074	0.9
		competencies	0.004	0.000	0.005	0.074	0.8
		Cooperation orientation	0.131	0.08	0.121	1.643	0.1
		Squared_Extent_of _network_Centred	0.014	0.048	0.019	0.285	0.7
		Extent_of_network_ Centred	0.006	0.069	0.006	0.09	0.9
		Market communication	0.243	0.097	0.198	2.507	0.0
		Value chain	0.005	0.000	0.047	0.0	0.0
		coordination	0.265	0.092	0.217	2.9	0.0

a. Dependent Variable: Market position performance

## Extent of network: International revenue growth performance

odel		Unstand	dardized cients	Standardized Coefficients	t	Sig.
ouei		В	Std. Error	Beta	ι	Sig.
	(Constant)	-0.285	0.087		-3.273	0.00
	Age	0.004	0.002	0.202	2.159	0.0
	1 Size	0.001	0.001	0.061	0.588	0.5
	Standard_deviation_e xport_growth_04_09	0.009	0.003	0.34	3.4	0.0
	(Constant)	-0.112	0.173		-0.651	0.5
	Age	0.004	0.002	0.193	1.983	0.
	Size	0.001	0.001	0.079	0.756	0.4
2	Standard_deviation_e xport_growth_04_09	0.009	0.003	0.358	3.514	0.0
	Product competitive					
	advantage	-0.051	0.039	-0.138	-1.33	0.1
	Innovation focus	0.006	0.007	0.086	0.821	0.4
	(Constant)	-0.4 0.004	0.228	0.400	-1.752	0.0
	Age Size	0.004	0.002 0.001	0.192 0.022	1.999 0.205	0.0
	Standard_deviation_e	0.01	0.003	0.374	3.713	
3	3 xport_growth_04_09	0.01	0.003	0.374	3.713	
	Product competitive	-0.039	0.039	-0.106	-1.015	0.3
	advantage Innovation focus	0.004	0.007	0.059	0.567	0.5
	Financial sufficiency	0.054	0.028	0.178	1.893	0.0
	(Constant)	-0.434	0.354		-1.228	0.2
	Age	0.004	0.002	0.194	1.986	0.
	Size	0	0.001	0.022	0.2	8.0
	Standard_deviation_e xport_growth_04_09	0.009	0.003	0.374	3.681	
4	4 Product competitive	0.04	0.000	0.407	4.047	
	advantage	-0.04	0.039	-0.107	-1.017	0.3
	Innovation focus	0.004	0.008	0.056	0.519	0.6
	Financial sufficiency	0.054	0.029	0.179	1.888	0.0
	Employee dedication and efficiency	0.007	0.054	0.012	0.127	8.0
	(Constant)	-0.786	0.415		-1.894	0.0
	Age	0.004	0.002	0.209	2.14	0.0
	Size	0	0.001	0.018	0.166	0.8
	Standard_deviation_e	0.008	0.003	0.313	2.941	0.0
	xport_growth_04_09 Product competitive					
,	advantage	-0.061	0.04	-0.163	-1.503	0.1
,	Innovation focus	0.001	0.008	0.011	0.103	0.9
	Financial sufficiency	0.06	0.029	0.197	2.074	0.0
	Employee dedication	0.009	0.055	0.016	0.168	0.8
	and efficiency International vision	0.096	0.053	0.201	1.829	0.
	International		0.04	-0.038	-0.406	
	commitment	-0.016		-0.036		0.6
	(Constant)	-0.009	0.459	0.000	-0.019	0.9
	Age Size	0.006 -3.85E-06	0.002 0.001	0.306 0	3.273 -0.005	0.0
	Standard_deviation_e			-		0.5
	xport_growth_04_09	0.009	0.003	0.372	3.745	
	Product competitive	-0.083	0.04	-0.223	-2.088	0.
	advantage Innovation focus	0.007	0.007	0.105	0.977	0.3
	Financial sufficiency	0.007	0.007	0.105	2.268	0.0
	Employee dedication	0.046	0.054	0.082	0.861	0.3
6	and efficiency			0.062		
`	International vision	0.123	0.051	0.257	2.405	0.0
	International commitment	0.001	0.037	0.002	0.018	0.9
	Intermediary					
	competencies	-0.014	0.037	-0.033	-0.378	0.7
	Cooperation	-0.224	0.053	-0.387	-4.204	1
	orientation	J.227	5.000	0.007	204	1
	Extent_of_network_C entred	-0.035	0.045	-0.071	-0.784	0.4
	Squared_Extent_of_n	0.000	0.000	0.005	0.055	
	etwork_Centred	-0.002	0.033	-0.005	-0.055	0.9
	(Constant)	-0.13	0.488		-0.267	0.
	Age	0.007	0.002	0.34	3.678	0.0
	Size Standard_deviation_e	0	0.001	-0.019	-0.192	8.0
	xport_growth_04_09	0.009	0.003	0.37	3.748	
	Product competitive	-0.086	0.039	-0.233	-2.219	0.0
	advantage					
	Innovation focus Financial sufficiency	0.006 0.076	0.007 0.027	0.086 0.251	0.815 2.839	0.4 0.0
	Employee dedication					
	and efficiency	0.045	0.053	0.08	0.852	0.3
	International vision	0.124	0.05	0.259	2.471	0.0
7	7 International	-0.025	0.04	-0.059	-0.62	0.5
	commitment					
	Intermediary competencies	-0.008	0.037	-0.02	-0.229	8.0
	Cooperation	0.000	0.050	0.004	4 000	
	orientation	-0.226	0.053	-0.391	-4.308	
	Extent_of_network_C	-0.04	0.044	-0.08	-0.901	0.
	entred	3.04	5.044	0.00	5.501	J.
	Squared_Extent_of_n etwork Centred	0	0.033	0.001	0.011	0.9
	Market				0	
	communication	0.146	0.07	0.215	2.098	0.0
	Value chain	-0.114	0.06	-0.174	-1.896	0.0
	coordination	0.114	0.00	0.174	1.000	. 0.0

## Innovation focus: Market establishment performance

		Unstand	efficients <sup>a</sup> dardized	Standardized			
Model		Coeffi	cients	Coefficients	t	Sig.	
		В	Std. Error	Beta			
	(Constant) 1 Age	4.292 -0.006	0.121 0.003	-0.171	35.467 -2.109	0.037	
	Size	0.003	0.001	0.152	1.874	0.063	
	(Constant) Age	3.482 -0.005	0.28 0.003	-0.147	12.423 -1.78	0.07	
	Size	0.003	0.003	0.109		0.07	
,	Product competitive	0.196	0.061	0.282	3.24	0.00	
•	2 advantage Squared_Innovation		0	0.000	0.445	0.05	
	_Focus_Centred	0	0	0.066	0.445	0.65	
	Innovation_Focus_C entred	-0.014	0.013	-0.167	-1.037	0.30	
	(Constant)	3.514	0.361		9.743	(	
	Age Size	-0.005 0.002	0.003 0.001	-0.146 0.112	-1.764 1.353	0.08 0.178	
	Product competitive	0.195	0.061	0.281	3.184	0.002	
;	advantage Squared_Innovation						
	_Focus_Centred	0	0	0.064	0.425	0.67	
	Innovation_Focus_C entred	-0.014	0.013	-0.165	-1.022	0.308	
	Financial sufficiency	-0.006	0.045	-0.012	-0.145	0.885	
	(Constant)	3.254	0.509	0.444	6.391	0.004	
	Age Size	-0.005 0.002	0.003 0.001	-0.141 0.113	-1.699 1.359	0.09 <sup>4</sup> 0.176	
	Product competitive	0.187	0.062	0.269	2.997	0.003	
	advantage Squared_Innovation						
4	4 _Focus_Centred	0	0	0.076	0.501	0.617	
	Innovation_Focus_C entred	-0.015	0.014	-0.177	-1.089	0.278	
	Financial sufficiency	-0.007	0.045	-0.013	-0.165	0.869	
	Employee						
	dedication and efficiency	0.059	0.081	0.058	0.726	0.469	
	(Constant)	2.022	0.514		3.933	C	
	Age Size	-0.005 0.001	0.003 0.001	-0.139 0.039	-1.832 0.51	0.069 0.611	
	Product competitive	0.001	0.059	0.039	1.881	0.062	
	advantage	0.111	0.033	0.10	1.001	0.002	
	Squared_Innovation _Focus_Centred	4.58E-05	0	0.024	0.177	0.86	
	Innovation_Focus_C	-0.01	0.012	-0.126	-0.846	0.399	
	entred Financial sufficiency	-0.008	0.041	-0.014	-0.184	0.854	
	Employee						
	dedication and efficiency	-0.027	0.075	-0.027	-0.363	0.717	
	International vision	0.226	0.066	0.28	3.446	0.001	
	International commitment	0.197	0.056	0.266	3.531	0.001	
	(Constant)	1.398	0.611		2.288	0.024	
	Age Size	-0.005 0	0.003 0.001	-0.158 0.029	-2.054 0.38	0.042 0.705	
	Product competitive		0.061	0.029	1.694	0.703	
	advantage	0.103	0.061	0.146	1.094	0.092	
	Squared_Innovation _Focus_Centred	3.68E-05	0	0.02	0.142	0.887	
	Innovation_Focus_C	-0.01	0.013	-0.117	-0.77	0.443	
	entred Financial sufficiency	-0.005	0.041	-0.009	-0.118	0.906	
(	6 Employee	0.000	0.041	0.000	0.110	0.500	
	dedication and efficiency	-0.035	0.075	-0.035	-0.461	0.645	
	International vision	0.165	0.071	0.204	2.319	0.022	
	International	0.203	0.056	0.275		c	
	commitment Intermediary						
	competencies	0.091	0.055	0.127	1.639	0.103	
	Extent of network Cooperation	0.098	0.07	0.109	1.408	0.161	
	orientation	0.029	0.079	0.029	0.37	0.712	
	(Constant)	0.768 -0.005	0.619 0.002	-0.139	1.24 -1.88	0.217 0.062	
	Age Size	-0.005	0.002	0.016		0.062	
	Product competitive	0.078	0.059	0.112		0.187	
	advantage Squared_Innovation						
	_Focus_Centred	5.46E-05	0	0.029	0.217	0.829	
	Innovation_Focus_C entred	-0.008	0.012	-0.092	-0.628	0.531	
	Financial sufficiency	0.001	0.04	0.002	0.034	0.973	
	Employee dedication and	-0.102	0.074	-0.102	-1.373	0.172	
7	7 efficiency						
	International vision	0.142	0.069	0.175	2.063	0.041	
	International commitment	0.131	0.057	0.178	2.312	0.022	
	Intermediary	0.096	0.053	0.134	1.812	0.072	
	competencies Extent of network	0.09	0.067	0.1	1.357	0.17	
	Cooperation	0.018	0.077	0.018		0.814	
	orientation Market						
	communication	0.366	0.093	0.318	3.93	(	
	Value chain	-0.034	0.089	-0.03	-0.388	0.699	
	coordination		shment nerf			1	

a. Dependent Variable: Market establishment performance

## Innovation focus: Market position performance

			dardized	Standardized		o:
lodel		Coeffi B	Std. Error	Coefficients Beta	t	Sig.
	(Constant)	4.223	0.128	Deta	33.075	
	1 Age	-0.002	0.003	-0.055	-0.692	0.4
	Size	0.005 3.63	0.001 0.3	0.266	3.335 12.112	0.00
	(Constant) Age	-0.001	0.003	-0.016	-0.196	0.84
	Size	0.004	0.001	0.238	2.976	0.00
	Product competitive	0.142	0.065	0.19	2.187	0.0
	2 advantage Innovation_Focus_					
	Centred	0.003	0.014	0.034	0.21	0.83
	Squared_Innovation	0	0	-0.054	-0.364	0.71
	_Focus_Centred (Constant)	3.394	0.385		8.825	
	Age	-0.001	0.003	-0.021	-0.25	0.80
	Size	0.004	0.002	0.219	2.653	0.00
	Product competitive	0.15	0.065	0.202	2.296	0.02
	advantage 3 Innovation_Focus_					
	Centred	0.002	0.014	0.024	0.146	0.88
	Squared_Innovation	7.60E-05	0	-0.038	-0.254	0
	_Focus_Centred					
	Financial sufficiency	0.047	0.048	0.079	0.981	0.32
	(Constant)	2.727	0.538		5.065	
	Age	0.004	0.003 0.001	-0.009 0.221	-0.112	0.91
	Size Product competitive			-	2.692	0.00
	advantage	0.129	0.066	0.174	1.958	0.05
	Innovation_Focus_	0	0.014	-0.005	-0.032	0.97
	4 Centred Squared_Innovation	,				
	_Focus_Centred	-1.86E-05	0	-0.009	-0.062	0.9
	Financial sufficience	0.044	0.047	0.075	0.938	0.3
	Employee					
	dedication and	0.15	0.085	0.139	1.758	0.08
	efficiency					
	(Constant)	1.465	0.544	0.04	2.694	0.00
	Age Size	0.003	0.003 0.001	-0.01 0.151	-0.136 1.994	0.89
	Product competitive		0.063	0.073	0.87	0.38
	advantage	0.034	0.003	0.073	0.67	0.30
	Innovation_Focus_ Centred	0.005	0.013	0.053	0.358	0.72
	Squared_Innovation	1				
5	5 _Focus_Centred	. 0	0	-0.065	-0.477	0.63
	Financial sufficience	0.041	0.043	0.07	0.956	0.34
	Employee					
	dedication and	0.058	0.079	0.054	0.737	0.46
	efficiency					
	International vision International	0.213	0.069	0.246	3.061	0.00
	commitment	0.229	0.059	0.289	3.882	
	(Constant)	0.784	0.646		1.213	0.22
	Age	-0.002	0.003	-0.044 0.147	-0.576 1.95	0.56
	Size Product competitive	0.003	0.001	-		0.05
	advantage	0.078	0.064	0.104	1.204	0.2
	Innovation_Focus_	-1.23E-05	0.013	0	-0.001	0.99
	Centred Squared Innovation					
	_Focus_Centred	-8.49E-05	0	-0.042	-0.31	0.75
	Financial sufficience	0.043	0.043	0.072	0.986	0.32
	6	0.010	0.010	0.012	0.000	0.01
	Employee dedication and	0.03	0.08	0.028	0.378	0.70
	efficiency	0.00	0.00	0.020	0.070	0
	International vision	0.187	0.075	0.217	2.493	0.01
	International commitment	0.213	0.059	0.27	3.59	
	Intermediary	0.007	0.050	0.04	0.125	0.00
	competencies		0.059	0.01		0.90
	Extent of network	0.008	0.073	0.008	0.103	0.9
	Cooperation orientation	0.177	0.084	0.163	2.106	0.03
	(Constant)	-0.187	0.645		-0.29	0.77
	Age	-0.002	0.003	-0.048	-0.665	0.50
	Size Product competitive	0.002	0.001	0.112	1.567	0.11
	advantage	0.049	0.061	0.066	0.806	0.42
	Innovation_Focus_	0.008	0.013	0.091	0.635	0.52
	Centred Squared_Innovation	,				
	_Focus_Centred	0	0	-0.111	-0.856	0.39
	Financial sufficience	0.021	0.041	0.036	0.518	0.60
		0.021	0.041	0.030	0.010	0.00
	Employee 7 dedication and	-0.051	0.077	-0.047	-0.656	0.51
	7 efficiency	-0.031	0.011	-0.047	3.000	0.5
	International vision	0.142	0.072	0.163	1.978	0.0
	International	0.149	0.059	0.189	2.528	0.0
	commitment Intermediary					
	competencies	0.003	0.055	0.004	0.056	0.98
	Extent of network	0.011	0.069	0.011	0.159	0.87
	Cooperation	0.125	0.08	0.115	1.56	0.12
	orientation Market			=		
	communication	0.239	0.097	0.194	2.461	0.0
	Value chain	0.281	0.092	0.23	3.04	0.00
	coordination	3.231	0.002	0.23	3.04	0.00

## Innovation focus: International revenue growth performance

lodel			dardized icients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
	1 (Constant) Age	-0.285 0.004	0.087 0.002	0.202	-3.273 2.159	0.00
	Size	0.001		0.061	0.588	
	Standard_deviation_ xport_growth_04_09	0.009	0.003	0.34	3.4	0.00
	2 (Constant) Age	0.141 0.004		0.186	0.711 1.959	0.47 0.05
	Size	0.004	0.002	0.188	0.362	0.03
	Standard_deviation_ xport_growth_04_09	0.01	0.003	0.385	3.86	
	Product competitive	-0.073	0.039	-0.197	-1.896	0.06
	advantage Innovation_Focus_C					
	ntred	0.032	0.013	0.464	2.545	0.01
	Squared_Innovation_ Focus_Centred	-0.001	0	-0.419	-2.5	0.01
	3 (Constant) Age	-0.128 0.004	0.259 0.002	0.186	-0.496 1.973	0.62 0.05
	Size	-5.49E-05		-0.006	-0.06	0.95
	Standard_deviation_ xport_growth_04_09	0.01	0.003	0.397	3.997	
	Product competitive	-0.061	0.039	-0.165	-1.566	0.12
	advantage Innovation_Focus_C					
	ntred	0.028	0.013	0.407	2.212	0.02
	Squared_Innovation_ Focus_Centred	-0.001	0	-0.382	-2.271	0.02
	Financial sufficiency	0.045 -0.089	0.028 0.389	0.148	1.595 -0.229	0.11 0.81
	4 (Constant) Age	0.004	0.002	0.184	1.92	0.05
	Size Standard_deviation_	-5.32E-05		-0.006	-0.058	0.95
	xport_growth_04_09	0.01	0.003	0.398	3.976	
	Product competitive advantage	-0.061	0.039	-0.164	-1.551	0.12
	Innovation_Focus_C	e 0.029	0.013	0.413	2.175	0.03
	ntred Squared_Innovation_	-0.001		0.204	2.250	0.02
	Focus_Centred	0.045	0.028	-0.384 0.147	-2.259 1.565	0.02
	Financial sufficiency Employee dedication		0.028	-0.013	-0.135	0.12
	and efficiency 5 (Constant)	-0.432	0.054	-0.013	-0.135	0.88
	Age	0.004	0.002	0.197	2.051	0.04
	Size Standard_deviation_	-5.59E-05		-0.007	-0.061	0.95
	xport_growth_04_09	0.009	0.003	0.344	3.251	0.00
	Product competitive advantage	-0.077	0.04	-0.206	-1.892	0.06
	Innovation_Focus_C	e 0.024	0.014	0.34	1.741	0.08
	ntred Squared_Innovation_	0.001	0	-0.347	-2.025	0.04
	Focus_Centred Financial sufficiency	0.05	0.029	0.166	1.749	0.04
	Employee dedication		0.055	-0.006	-0.065	0.94
	and efficiency International vision	0.081	0.052	0.17	1.557	0.12
	International	-0.015	0.039	-0.036	-0.382	0.70
	commitment 6 (Constant)	0.404	0.468		0.863	0.3
	Age	0.006		0.294	3.227	0.00
	Size Standard_deviation_	0 0.01	0.001	-0.017 0.393	-0.17 3.984	0.86
	xport_growth_04_09 Product competitive					
	advantage	-0.094	0.039	-0.255	-2.427	0.01
	Innovation_Focus_C	0.024	0.013	0.339	1.847	0.06
	Squared_Innovation_	-0.001	0	-0.25	-1.563	0.12
	Focus_Centred Financial sufficiency	0.053		0.175	2.005	0.04
	Employee dedication			0.065	0.715	0.47
	and efficiency International vision	0.111	0.051	0.232	2.176	0.03
	International commitment	0.001	0.037	0.002	0.022	0.98
	Intermediary	-0.017	0.037	-0.039	-0.452	0.65
	competencies Extent of network	-0.03	0.045	-0.06	-0.674	0.50
	Cooperation	-0.214	0.053	-0.37	-4.04	
	orientation 7 (Constant)	0.255	0.51		0.5	0.61
	Age Size	0.006		0.329 -0.027	3.593 -0.276	0.00 0.78
	Standard_deviation_		0.001	0.385	3.873	0.70
	xport_growth_04_09 Product competitive					
	advantage .	-0.092	0.038	-0.249	-2.397	0.01
	Innovation_Focus_C ntred	0.016	0.013	0.231	1.207	0.23
	Squared_Innovation_	- 0	0	-0.151	-0.906	0.36
	Focus_Centred Financial sufficiency	0.07	0.027	0.232	2.568	0.01
	Employee dedication		0.051	0.071	0.783	0.43
	and efficiency International vision	0.117	0.051	0.244	2.311	0.02
	International	-0.02	0.04	-0.048	-0.506	0.61
	commitment Intermediary	-0.01	0.036	-0.024	-0.286	0.77
	competencies Extent of network	-0.016	0.036	-0.024	-0.280	0.77
	Cooperation	-0.036	0.044	-0.072	-0.811 -4.142	0.41
	orientation Market					
	communication	0.125	0.073	0.184	1.707	0.09
	Value chain coordination	-0.106	0.06	-0.162	-1.756	0.08
		<del></del>		wth performance	<u> </u>	

# Appendix G | PEARSON CORRELATION

#### Time to internationalise

In this appendix the Pearson correlations used to investigate the relation between time to internationalise, *international vision* and the three performance indicators is presented. This was tested to investigate whether *international vision* is a characteristic that is mainly attributed to rapidly internationalising companies, so-called Born Globals, and whether the high performers in this study are from this group of firms (see Section 5.2.1).

#### Correlations

		Time to internationalise	International revenue growth performance	Risk-minimising performance	Market position perfomance	International vision
Time to internationalise	Pearson Correlation	1	.052	093	024	070
	Sig. (2-tailed)		.505	.165	.717	.286
	Sum of Squares and Cross- products	66521.983	122.025	-313.228	-88.902	-348.374
	Covariance	283.072	.744	-1.411	399	-1.495
	N	236	165	223	224	234
International revenue growth	Pearson Correlation	.052	1	.069	.086	.085
performance	Sig. (2-tailed)	.505		.360	.254	.252
	Sum of Squares and Cross- products	122.025	141.802	7.265	10.159	16.262
	Covariance	.744	.779	.041	.058	.090
	N	165	183	177	177	182
Risk-minimising performance	Pearson Correlation	093	.069	1	.511"	.404"
	Sig. (2-tailed)	.165	.360		.000	.000
	Sum of Squares and Cross- products	-313.228	7.265	225.260	130.983	116.524
	Covariance	-1.411	.041	.890	.518	.461
	N	223	177	254	254	254
Market position perfomance	Pearson Correlation	024	.086	.511"	1	.399"
	Sig. (2-tailed)	.717	.254	.000		.000
	Sum of Squares and Cross- products	-88.902	10.159	130.983	292.582	132.404
	Covariance	399	.058	.518	1.152	.521
	N	224	177	254	255	255
International vision	Pearson Correlation	070	.085	.404"	.399"	1
	Sig. (2-tailed)	.286	.252	.000	.000	
	Sum of Squares and Cross- products	-348.374	16.262	116.524	132.404	444.997
	Covariance	-1.495	.090	.461	.521	1.667
	N	234	182	254	255	268

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).