This thesis is submitted to the Auckland University of Technology as part of the degree in Masters of Business majoring in International Business.

Title:
Mode of entry observations for environmental based INVs (International New Ventures)

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Submitted: **2002**

Attestation of Authorship

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

Name: …………………......……….. Signed: …………………………………….

Acknowledgements

This thesis could have not been possible without the unconditional support of my parents, Mum and Dad thank you for everything.

Thank you to the participants of the research for their candour and willingness to take time out of their schedule for an interviewer from New Zealand.

I would also like to thank my supervisor Dr Jonathan Matheny not just for the support throughout this thesis but also for the faith displayed in me over the last four years.

Last, but definitely not least, I would like to thank the various reviewers of my work over the last year. To Sam and Clouds thank you for putting up with my whining and being the good friends that you both are. For the two Suvi's, thanks for the help with the 144 pieces of green paper.

Ethics approval was gained from the Auckland University of Technology Ethics Committee on the 21 August 2002, reference number: 02/76.

Abstract

This thesis examines the risk and internationalisation practices of International New Ventures (INVs) in the environmental sector. The purpose of the research is to make observations regarding the manner in which environmental INVs manage risk when internationalising.

The literature review focuses upon the published literature that relates to INVs, risk and risk management, mode of entry and the environmental sector. Section one of the literature review provides the characteristics of what constitutes an INV. Section 2 provides a review of the risk literature, this allows the differences between Multi National Enterprise (MNE) and INV risk and risk management to be reviewed. Section 3 takes the international business risks mentioned in section 2 and relates them to the mode of entry literature (i.e. the internationalisation of firms). The final section of the literature review is used to justify the investigation into the water pollution and control sector of the environmental industry.

The research question is 'What strategies do environmental INVs use when entering new international markets?' The research question is broken into five specific research questions and addressed using the Repertory Grid process. The Repertory Grid process is used as it can turn the tacit knowledge held by the participants into explicit knowledge. The results show areas of convergence and divergence between practice and academia. The results also suggest new issues that need to be considered when firms internationalise. This culminates in the observations made in regard to the way environmental INVs manage risk when internationalising.

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1 Introduction

Over the last 20 years the international business environment has undergone many changes. The advent of the Internet has decreased the costs of doing business across borders. Advances in technology related to transportation of goods and people has resulted in more efficient across border transactions. The web has also sped up information flows and methods of communication. With these advances in technology, corresponding demands have increased upon businesses and individuals involved in international business. This has resulted in increased competition in the global market and also the creation of new forms of international organisations.

To accommodate these emerging demands in the international market a new type of organisation has developed, the INV (International New Venture). INVs specialise in taking advantage of emerging trends in the international market while operating on a small scale. Although INVs are a form of SME (Small and Medium Enterprise) they are created with the express purpose of meeting international market demands. An example of an INV is the Finnish based environmental company called Environics OY. They sell air-monitoring equipment, calibrated specifically for monitoring levels of dangerous gasses to markets, such as, Israel, USA and UK. From their inception it has sourced different parts of the value chain from other countries to create competitive advantage, such as, components for their product. It also has control over a unique asset, this being, a device that is specifically suited for monitoring dangerous gases in emergency situations. When these two components are taken into consideration Environics OY are not a typical SME.

Previous research on traditional SMEs shows they internationalise slowly to offset risk (Johanson and Valhne 1990). However, this traditional position is now being questioned as INVs internationalise faster and manage risk more effectively than their SME counterparts. This contradiction has been noticed and addressed by some more recent studies. McDougall (1989) focused on why INVs internationalise at the beginning of their operations and Shrader, Oviatt and McDougall (2000) addressed how they deal with risk as an ongoing issue in a general manner. What has not been thoroughly addressed is how INVs deal with risk at the point of entry into new markets. Internationalisation is an important function for an INV, as is risk management. Therefore, the overlap between these two functions should be investigated.

Advances in technology and the advent of accelerated internationalisation have facilitated the growth of the environmental industry. This industry is dominated by SMEs and has experienced rapid growth over the last 20 years (International Trade Forum 2001 and Team Canada Inc. 2001). The advance in technology has allowed environmental firms to conduct business across borders in a more efficient and effective manner. Accelerated internationalisation has allowed these firms to explore international markets outside of their limited domestic markets.

The purpose of this thesis is to provide insights into the way INVs perceive and manage risk when entering new markets. To provide insights I break down the main question, which is 'what strategies do environmental INVs use when entering new international markets' into five specific questions. I then collect the data on the five specific research questions and discuss them separately, before making mode of entry observations for environmentally based INVs.

This thesis will address the following four bodies of literature that relate to the main research question. These are the literature pertaining to INVs, risk and risk management, mode of entry and the environmental industry. I will not be testing the literature, but using it to inform my research.

The nature of the research is exploratory, with the express purpose of gaining depth of understanding into INV internationalisation and risk management. Therefore, the methodology that will be used to address the research question in this thesis is the Repertory Grid technique. This technique has been chosen, as it will help provide insights into the thought processes of INV managers when they make decisions regarding how their firms internationalise and manage risk. It also creates the opportunity to compare the thoughts of managers and learned academics. The discussion will be used to compare the results of the Repertory Grid to the literature. The outcome of this thesis will be a series of observations that shed light on how INVs internationalise and manage risk.

2 Literature Review

There are four bodies of literature that are integral to the research problem, these are INVs, INV related risk, mode of entry and the environmental industry.

The INV part of the literature review provides the characteristics of what constitutes an INV. As a result the type of firm the remaining three sections of the literature review are addressing will be stipulated. The INV related risk reviews the risk literature allowing the differences between MNE and INV risk and risk management to be reviewed. The mode of entry literature takes the international business risks mentioned in section 2.2 and relates the risks to each of the six dominant forms of mode of entry. The final section of the literature review provides the basis of the investigation into the environmental industry.

There are two central purposes to this literature review. The first is to establish the existing terms and concepts that have been published in relation to INV internationalisation and risk. The second is to establish the key points, which will be used in the analytical phase of this thesis.

2.1 International New Ventures

"An International New Venture is a business organisation that, from inception, seeks to derive major competitive advantages from the use of resources and the sale of outputs in multiple countries" (McDougall and Oviatt 1994, pg 49). There are three important components to this definition; 'from inception', 'use of resources' and 'multiple countries'. 'Inception' implies that from the very beginning of the company there is some type of cross border transactions in place, whether it is sales, investment or product sourcing. The 'use of resources' implies that in places along the value chain, value can be added by engaging in international transactions that will result in firm competitiveness. The third component suggests that the primary market of the INV is the international market. While an INV includes sales and various activities in other countries as part of its value system and value chain from inception an MNE does not from inception consider sales and various activities in other countries as central to its value chain and value system.

After reviewing the literature I developed a list of nine characteristics that indicates the organisation is an INV, as opposed to an MNE or SME. I did this by reviewing the available literature and taking an inclusive approach to the identifying characteristics mentioned in the literature (Busenitz and Barney 1997; Dunning 1998; Johanson and Valhne 1990; McDougall and Oviatt 1994; Shrader and Oviatt 2000; Zahra and Bogner 1999 and Zahra and Duane Ireland 2000). I will also address the types of INVs that are in existence, thus demonstrating the application of the INV characteristics. Addressing these points will further show how an INV can be differentiated from SMEs and MNEs.

The nine characteristics that indicate the firm is an INV are internationalisation of transactions, foreign location advantages, control over a unique resource, origin, alternative governance structures, entrepreneurial values within the firm, prevalence of technological learning, age and growth when engaging in international business and strategic management MNE theory.

The first characteristic is the internationalisation of transactions (Shrader and Oviatt 2000; McDougall and Oviatt 1994). This transaction can be in any form as long as it relates to the three factors of production; these being, capital, natural resources and labour (Lynch 1993). An example of this is if a firm in New Zealand received start-up capital from an organisation in the United States. This is unique to INVs, as an SME would not have the international knowledge needed to apply for seed capitol outside of their domestic market.

The second is foreign location advantages (Shrader and Oviatt 2000; McDougall and Oviatt 1994). The firm must gain some advantage from engaging in international transactions. As with the first, these advantages may be related to the three factors of production, capital, natural resources and labour (Lynch 1993). For example, an INV may be based in New Zealand and sell its product to Ireland where there is minimal competition. A normal SME will not sell to an international market before its domestic market.

The third characteristic that indicates the organisation is an INV is the firm has control over a unique resource (Shrader and Oviatt 2000; McDougall and Oviatt 1994). This allows the firm to survive in the international market as it has some bargaining power. This also provides the firm with the required resources needed to pursue niche marketing strategies. An example of this is a firm that has a type of water monitoring software that is new to the market. The control they have over this unique resource facilitates their survival in the international market by allowing them to pursue a niche marketing strategy. An SME may have control over a unique asset, but as mentioned earlier their primary concentration will be on the domestic market.

The fourth characteristic is origin. There are essentially two different theories regarding the origin of INVs. The first is the ‘multinational network view’ (Dunning 1993, 1995; Johansson and Vahlne 1990) and the second is the ‘international entrepreneur view’ (McDougall and Oviatt 1994, 1995; Shrader, Oviatt and McDougall 2000). The ‘multinational network view’ attributes the existence of these international small and medium sized businesses to large MNEs shedding non-core business functions. An example of this is a vertically integrated MNE selling one of its product supply divisions to create a stand-alone company. The ‘international entrepreneur’ view considers the effects of current environmental conditions and innovation that allow entrepreneurs to develop new international businesses. An example of this is if a internationally experienced manager decided to start his own firm to service market demands in multiple countries. An INV will usually have an origin consistent with the latter. An SME on the other hand would limit its origin to the conditions within its domestic market.

The fifth characteristic is alternative governance structures (McDougall and Oviatt 1994). An INV suffers from a lack of resources (McDougall and Oviatt 1994) and lack of bargaining power. It utilises alternative governance measures to control its resources. An example of this is if a firm uses exporting, licensing, franchising (Williamson 1991) or network structures (Aldrich 1986; Larson 1992) to enter new markets. The exporting, licensing, franchising options increase the level of expropriation risk the firm is exposed to during market entry (McDougall and Oviatt 1994), the network structures option is resource conserving and based on informal social bonds (McDougall and Oviatt 1994). This process is not applicable to an SME because when it does internationalise it will internationalise using the stages model of internationalisation (Johanson and Valhne 1990; Rowden 2001).

The sixth characteristic is entrepreneurial values (McDougall and Oviatt 1994). This refers to the firms’ ability to operate successfully in the highly competitive international environment. For small firms to succeed they need to have innovative products and be willing to pursue opportunities that are available. An example of this is when a firm enters a country to take advantage of market deficiencies even though that country may have a high-risk profile. An

SME and an MNE will probably be less inclined than an INV to enter a market with a higher risk profile.

The seventh characteristic that indicates that the organisation is an INV is technological learning (Zahra and Duane Ireland 2000). Technological learning is the art of turning information gained through international expansion into competitive advantage. The accelerated internationalisation of an INV increases the speed at which technological learning occurs. An example of this is the acquisition of skills related to dealing with foreign law that is quickly internalised within the company creating a competitive advantage. SMEs and MNEs do not possess the organic structure of an INV that allows this information to be internalised at such a fast rate (Zahra and Duane Ireland 2000).

The eighth characteristic is international business (McDougall and Oviatt 1994). It is possible to identify an INV by its age and revenue levels when engaging in international business. There are three major studies that address INV involvement in international business, Brush (1992, 1995) and Burrill and Almassy (1993). This line of research defines an INV as a firm that engages in international business within six years of conception with their revenue totalling less than $US5 million per annum. An example of this is a firm that seeks to serve international markets from inception, but is not able to do so until the product is ready and enough finances have been gathered to facilitate international sales. Once again an SME would be concentrating on developing its domestic market before the international market.

The final characteristic is MNE theory. An INV is a special kind of MNE (McDougall and Oviatt 1994), and not a separate entity that consists of an entirely different set of activities. For example both firms add value to their products using resources based in multiple countries (Buckley and Casson 1976). However, an MNE’s assets may not necessarily be unique and in most cases it internalises the asset. An INV manages its unique asset in conjunction with another party, as it cannot afford to internalise the asset. As a result an MNE derives its competitiveness from size, while an INV derives its competitiveness based on elemental advantages, for instance product merit (Caves 1982; Casson 1987).

Not all nine characteristics have to be present for the firm to be categorised as an INV. For the purposes of this thesis only the first three have to be present in the firm to be considered an INV, as these made up an integral part of the literature (Shrader and Oviatt 2000; McDougall and Oviatt 1994). The remaining six characteristics are not mentioned as frequently as the first three characteristics but may also be present in an INV. One of the reasons for this is because there are different types of INVs, each exhibiting different characteristics.

2.1.1 Types of International New Ventures

When it comes to defining types of INVs there are two important parameters to look at, value chain activities co-ordinated and countries invested in. The first implies that an INV can co-ordinate parts of the value chain or the whole value chain. An example of this is an INV that may just import a product for a market were another might source, manufacture and export the product to the new market. The second parameter refers to the number of countries involved in the INVs' value chain. For example, one INV may have to coordinate imports from one country, but another INV may have to source components for its product from one country, manufacture in another and sell to yet another.

Table 2.0 is used to categorise the types of INVs in existence using the number of countries they operate in and number of activities coordinated as criteria. This is taken from McDougall and Oviatt (1994, pg 59). The diagram is a continuum along two axes and the four types of INV stated represent the four models, an INV in essence can exist at any point along the continuum.

Figure 2.0: Types of INVs

		NUMBER OF COUNTRIES ENTERED	
		Few Countries entered ↔	**Many countries entered**
CO-ORDINATION OF VALUE CHAIN ACTIVITIES	**Few activities co-ordinated** ↕	*Export/Import Start-up*	*Multinational Trader*
	Many activities co-ordinated	*Geographically Focused Start-up*	*Global Start-up*

McDougall and Oviatt (1994) have categorised INVs into three main categories. These are the new international market makers (export/import start-ups and the multinational trader), geographically focused start-ups and global start-ups. These three types of INVs can compete in almost any industry. They may be firms that draw together many inputs from various locations to produce an output that is sold wherever it is needed most. They may also be firms that simply add value through exporting the product to where it is needed most (McDougall and Oviatt 1994).

The 'Export/Import start-ups' demonstrate the following INV characteristics; internationalisation of transactions, foreign location advantages, control over a unique resource, alternative governance structures and entrepreneurial values. This type of INV co-ordinates few value chain activities, just those limited to the process of exporting and importing. This type of INV also services few countries usually those countries of which it has an intimate knowledge.

The 'Multinational Trader' demonstrated the same INV characteristics as the 'Export/Import start-ups', but in a more intensive manner. This type of INV also co-ordinates few value chain activities, usually those associated with just exporting and importing. But, the 'Multinational Trader' services many countries, unlike the 'Export/Import start-up'.

The 'Geographically Focused start-ups' demonstrates all nine of the INV characteristics. This type of INV co-ordinates multiple value chain activities, other than just those associated with exporting and importing. They can be involved with everything from the sourcing of inputs to the end consumer. However, they operate in few countries, as they are restricted to a certain region due to their unique knowledge of that region.

The 'Global Start-ups' are the pinnacle of an INV, with this type of INV all nine characteristics are present and used to their fullest advantage. A 'Global Start-up' requires the coordination of multiple value chain activities. It also derives major competitive advantages from co-ordinating resources across many countries. This is managed using the "close network alliances [internationally experienced managers have established] in multiple countries" (McDougall and Oviatt 1994, pg 60).

2.1.2 Key points

From this body of literature the following nine key points have been created. These key points will prove useful in the analytical part of this thesis.

- INVs are classified by early internationalisation of transactions – Engaging in international transactions from inception is a characteristic unique to an INV.

- Foreign location advantages are used by INVs to increase competitive advantage – By pursuing a portion of the value chain in a foreign location an INV gains a competitive advantage in its target market.
- INVs have control over a unique resource – When an INV has control over a unique resource it can increase it chances of survival by pursuing niche business strategies.
- An INV originates from the international entrepreneur view – An INV unlike an SME, has internationally experienced manager at the helm who has the business knowledge that allows an INV to meet international market demands.
- An INV utilises alternative governance structures –An INV uses alternative governance structures to effectively control an asset that it would not be able to internationalise entirely.
- An INV possesses strong entrepreneurial values – Entrepreneurial values allow the firm to accept high-risk opportunities presented to them.
- An INV uses technological learning – Through accelerated internationalisation an INV quickly gains the knowledge required to operate effectively in the international environment.
- The age and level of growth for an INV when internationalising is less than an SME – An SME will be older and have larger revenues when it finally decides to internationalise.
- According to theory an INV and an MNE can be differentiated – INVs and MNEs are different types of organisations as shown by examining MNE theory.

2.2 INV Related Risk

According to Miller (1992) risk 'refers exclusively to unpredictability in corporate outcome variables'. This unpredictability is the result of increases in uncertainty brought on by external environmental shocks, unforeseeable personal choices and the results of various interrelated variables. In relation to INVs the goal is to minimise the risk faced using minimal resources.

Miller (1992), Vernon (1985) and Brouthers (1995) have all indicated risk is better addressed from an IRM (Integrated Risk Management) perspective rather than from the more traditional isolationist view. This view that is gaining prominence is concentrated on classifying risk differently and viewing risk management from a strategic management perspective. From this perspective all the factors that make-up risk are not viewed as separate entities that may impact negatively upon the firm, but are interrelated and may positively affect the firm.

This means the risk is classified into mutually exclusive categories that compliment each other. The risks are then mitigated using combinations of strategic management risk reducing strategies. This approach is applicable to INVs as it utilises their strengths (the INV characteristics) and is less resource intensive. The risk classifications and strategic management strategies associated with the IRM technique are mentioned below, in 2.2.1 and 2.2.2 respectively. Throughout these sections Miller's (1992) work on international business risk and risk management is used because of its application to INV circumstances and its prominence in the literature.

2.2.1 International business risks

There are three groups of international business risks, the general environment, industry and firm-specific variables (Miller 1992). Brouthers' (1995) work on mode of entry has added two additional risks to Miller's (1992) and these are management experience and market infrastructure. Brouthers' (1995) two additional risks will be integrated into Miller's (1992) framework.

The first grouping of international business risks refer to general environmental uncertainties. These are all factors that are the same across all industries in the country in question. These types of variables could be political risk, policy uncertainty, macroeconomic uncertainty, social uncertainty and natural uncertainty (Miller 1992).

Political risk is usually associated with major changes in political regimes within a country (Shubik 1983; Ting 1988). Examples of political risk could be war, revolution and in some cases democratic changes in the head of state. Policy uncertainty is associated with changes in government legislation that may have an effect on business activities (Ting 1988). Examples of policy risk can be changes in monetary policy, fiscal policy or trade liberalisation. Macroeconomic risk is the result of economic mismanagement by policy makers and large corporations. Examples of macroeconomic risk could be fluctuations in the inflation rate, variations in the factors of production, variable interest rates and foreign exchange rates. Social uncertainty is brought about through alternative points of view on public matters between the government and its institutions and the public at large (Dunn 1983). An example of this is collective action, such as protests or riots. Natural uncertainties are the effects of natural uncertainties to the factors that make-up the supply chain and value chain of a firm. Examples of natural uncertainty are floods, fires or hurricanes.

The second grouping refers to industry uncertainties, which are input market uncertainties, product market uncertainties, competitive uncertainties (Miller 1992) and market infrastructure risk (Brouthers 1995). The input market uncertainty refers to a firm's ability to rely on the host country market to provide the inputs required to create the product. An example of this is uncertainty in the price and availability of inputs. Product market uncertainty is primarily concerned with downstream issues. Examples of product market uncertainty can be general shifts in consumer demand. Competitive uncertainty is primarily concerned with the capabilities of firm competitiveness in a host environment. Examples of competitive uncertainty are the ability of competitors to compete by lowering prices, extending capacity or rallying support.

It is here that we will add the first of Brouthers' (1995) risks, being, market infrastructure risk. This risk has two dimensions, the first being a lack of familiar infrastructure, the second is a lack of secure and stable infrastructure. Lack of familiar infrastructure refers to the firm's unfamiliarity with advertising, retailing and distributions channels in the host country. Examples of this are innocuous promotional campaigns due to a lack of understanding in regard to foreign media. Lack of secure and stable infrastructure refers to the extent to which the firm can rely on transport and energy providers, among others, to supply them constantly. Examples of this are interruptions to production due to power failures.

The third group of firm uncertainties includes operating, liability, R&D, behavioural uncertainties (Miller 1992) and management experience (Brouthers 1995). Operating uncertainties pertain to the issues within the supply chain and value chain. Examples of this are shortages of labour, possibilities of collective action and employee safety, as it may lead to potential lawsuits. Input market uncertainties are the issues that could occur in procuring materials needed for production. Examples of this are supply uncertainties, raw material shortages and quality changes. Liability uncertainties are any liabilities relating to the production and use of the firm's product. Examples of this can be product liability or liabilities related to the emission of pollutants. R&D uncertainty is anything that may arise from the firm's research and development department that may alter organisational variables. Examples of this could be excessive costs associated with R&D or the inability of the R&D department to produce new competitive products. Credit uncertainty in Miller (1992) relates to fluctuations in income. Examples of this could be clients defaulting on debts or issues with bank loans. Behavioural uncertainty is about the uncertainties associated with agency relationships within a firm. Examples of this can be employee over compensation or staff theft.

Here we integrate the second of Brouthers' (1995) risks, being, the level of management experience. This relates to the ability of management to accurately access the current business environment and take actions to address changes in the environment. Common examples of this is a manager with a low level of experience will perceive an international situation as highly risky (Vernon 1985; Zahra et al. 2000) and will doubt their managerial abilities in that foreign location.

These risk categories represent a new method of classifying risk. Because of its inter-related nature it compliments the IRM technique as it manages risk in an inter-related manner.

2.2.2 Risk management

Traditionally, an MNE would manage risk by co-ordinating resource flows among large multinational networks of subsidiaries (Ghoshal 1987; Kognut 1989). In general MNEs have a negative attitude toward proactively assuming risk. This attitude was due to the limited methods of risk management at their disposal, such as; financial derivatives (Brealey and Myers 1998), divestment (Dunning 1998) and the afore mentioned resource flow management. With the IRM perspective Miller (1992) has articulated a method of risk minimisation that is not resource intensive.

Miller (1992) identified two categories of risk management after a comprehensive survey of the literature. The first and most well known category of risk management is that of financial risk management. Financial risk management is in essence purchasing 'insurance' against market uncertainties in the form of financial derivatives. Derivatives are futures contracts, forwards exchange contracts, options and swaps.

In established financial markets derivatives are an effective method of alleviating risk. Due to inter-country variance, established financial markets are not always present in host countries. Therefore, in certain countries derivatives will not exist, usually due to a lack of information. If it is impossible to estimate the level of uncertainty and risk in a market due to a lack of information, the correct premium required cannot be calculated to cover the risk involved. In these types of markets or industries where the availability of financial derivatives is limited or non-existent, the form of risk management shifts from financial to strategic. Changes in strategic direction limit the exposure a firm has to environmental uncertainties.

Strategic risk management is the second category of risk management and avoidance will be the first form discussed. Avoidance is a strategy that can be practised by a firm considering entering a market or a firm that is already in a market. If management consider the risks inherent in the host country too high, they can delay new market entry or if they are in the market, withdrawal all activities.

The control form of risk management is based on a firm's ability to control important environmental factors to reduce uncertainty (Mascarenhas 1982). Examples of the control forms of risk management are political lobbying, vertical integration and horizontal integration.

The co-operation strategy differs from control strategy as it implies the use of multilateral agreements, increased interdependence and a reduction in autonomy. The forms of co-operation strategy are long term contractual agreements, such as contracts with suppliers and buyers, voluntary restraints on competition, strategic alliances, joint ventures, franchising agreements, licensing, subcontracting arrangements, participation in consortia, interlocking directorates and inter-firm personnel flows.

Firms facing uncertainty in a market observe their competitor's success in this market and seek to emulate it, thus demonstrating an imitation strategy. An imitation strategy involves the imitation of product and process technologies. A firm pursuing an imitation strategy will never be a market leader as it is just a bad imitation of a market leader. Imitation will reduce the risk and uncertainty they face and facilitate their survival.

The flexibility strategy refers to a firm's ability to diversify product lines and input materials across geographic borders. This combination of product and geographic diversification can offset the environmental uncertainties faced in any one country by shifting production, procurement and manufacturing.

A flexible workforce with flexible skills demonstrates the operational flexibility strategy. It refers to the ability to have flexible input sourcing, plants and equipment. Operational flexibility allows a firm to limit their exposure by adjusting internal production to counteract unfavourable environmental conditions and therefore, limit financial losses.

The above risk management techniques that were identified by Miller (1992) are designed to be used in conjunction with one another. Just as any other business decision that is made from a strategic management perspective takes multiple issues into account. This results in the IRM technique, a risk management technique that uses multiple forms of risk management to reduce a firm’s risk profile. For example the avoidance, control, co-operation and imitation strategies dealt with external environmental uncertainties and the flexibility and operational flexibility strategies dealt with internal firm responsiveness. By using a combination of strategies from these two groups a firm can reduce its overall risk profile by using strategic decision-making.

Miller (1992) has taken this a step further and combined the method of risk classification and risk management to produce a model that is believed to be suitable for market entry. This model appeals to low resourced companies who cannot afford to purchase financial derivatives and find themselves in situations that are high in risk, such as INVs. This is suitable for INVs as this form of risk management plays to the strengths of the entrepreneurial oriented firm. The model uses the risks identified in the three mutually exclusive categories (2.2.1) and the forms of risk management mentioned at the beginning of this section.

Miller (1992) has identified three main risks as the major risks faced by firms at point of entry, see table 2.2. A firm can mange these risks by trading them off against one another using the strategic forms of risk management. For example a firm can decrease its foreign location risk and level of revenue exposure by choosing a low commitment form of market entry, such as, franchising. At the same time pursue an imitation strategy to reduce its external environmental risk and employ operational flexibility to reduce its internal risk. There are many combinations of risk management that could be used, each tailored to suit the firms individual circumstances. Shrader, Oviatt and McDougall (2000) have empirically proven the existence and management of these three risk factors by INVs.

Table 2.2: Risk trade-off

Risk 1	Foreign location risk (Dunning 1998). Foreign location risk being those risks associated with the general environment and industry risk
Risk 2	Commitment to foreign location (Gemawat 1991; Root 1987). This refers to the level of commitment of resources required to enter a new market. The level of resources is dictated by the mode of entry, such as franchising, licensing, exporting or wholly owned subsidiaries.
Risk 3	Revenue exposure (Miller 1992). This is related to the level of commitment, as more commitment equals a higher level of revenue exposure. By limiting commitment and manipulating cash flows the level of revenue exposure can be minimised.

The growth of the IRM technique would suggest a reconsideration of the risks and method of risk management associated with SMEs. This is evident in the increasing number of successful small firms internationalising (OECD 1997) and the recent emphasis of this risk management technique in the risk management literature (Brouthers 1995).

2.2.3 Key Points

From this body of literature eight key points were created that will prove useful in the analytical part of this thesis.

- General uncertainties risk– This is a major category of the IRM technique and therefore, has implications for INV internationalisation activities.
- Industry uncertainties risk – This is a major risk category of the IRM technique and therefore, has implications for INV internationalisation activities.
- Firm uncertainties risk – This is a major risk category of the IRM technique and therefore, has implications for INV internationalisation activities.
- Avoidance strategy – The avoidance strategy is one of the traditional methods of risk management that is not preferred by INVs.
- Financial derivatives – Financial derivatives are a preferred method of risk management for MNEs, but not for INVs as they are too expensive.
- Revenue exposure – Revenue exposure is one of the three risks that Miller (1992) has identified as important to be managed when internationalising. Therefore, highly important to INVs.
- Commitment to foreign location – Commitment to foreign location is the second of three risks that Miller (1992) has identified as important to be managed when internationalising. Thus, important to INV internationalisation.

- Foreign location risk – Foreign location risk is a key point because it is the third risk that Miller (1992) identified as important to be managed when internationalising. As a result it is very important to INVs.

2.3 Mode of Entry

The body of literature seeks to integrate Miller's (1992) risks stated in the previous section into the mode of entry decision-making process. When considering mode of entry in relation to INVs, the traditional form of internationalisation must be looked at before the accelerated form of internationalisation can be understood.

2.3.1 Traditional versus INV internationalisation

As recently as March 2001, Rowden (2001) offered the small business stage model of firm internationalisation (Stopford and Wells 1972) as the preferred method by which small firms internationalise. This model involves passing through stages, similar in nature to the Innovation and Uppsala models of firm internationalisation (Rowden 2001). Firms following these models internationalise in an incremental manner, going through the following six stages. Firstly, the domestic market is developed. This means that the firm concentrates on meeting the demands of the domestic market until saturation. Secondly, the firm realises there is no further growth in the domestic market and begins to export. Exporting is a low risk activity, but does not give the firm an opportunity to develop their foreign market, as they have limited power over their product in the foreign market. Thirdly, the firm founds an international division. The international division has more resources and sole responsibility of all foreign activities. Fourthly, the firm invests in a foreign location (foreign direct investment). The firm now owns assets in foreign markets and has more control over its product in the foreign market. Fifthly the firm creates an area division. As the firm grows and enters more markets, cultural and logistical differences between geographic regions cannot be ignored, so area divisions are created to address those differences. Finally, a global matrix is developed. A global matrix is the seamless integration of global activities (Stopford and Wells 1972; Rowden 2001; Johanson and Vahlne 1990). Incremental internationalisation is still the norm for firm internationalisation (Oviatt and McDougall 1997).

However, this disposition has come under threat over the last ten years and has been heightened by a recent OECD (Organisation for Economic Co-operation and Development 1997) study into firm internationalisation. An article by Shrader and Oviatt (2000) has suggested that this study implies the number of small young firms internationalising is increasing. In fact, one third of these small firms will derive at least ten percent of their revenues from foreign activities by 2005 (OECD 1997).

2.3.2 Decision variables

When an INV decides to internationalise and enter foreign markets it must consider risk, ownership and resource commitment, just as an MNE would when it enters a new market. These three elements have a direct impact on the choice of entry mode. There are six major forms of mode of entry; foreign direct investment, turnkey, franchising, joint venture, licensing and exporting (Brealey and Myers 1998). First we will address the basis of risk, ownership and resource commitment when internationalising. Then we will look at the six modes of entry, before applying each of the modes of entry to risk ownership and resource commitment.

There have been many studies that have identified risk as one of the elements to be considered when choosing a mode of entry (Buckley and Mathew 1980; Anderson and Gatigon 1986; Root 1987; Hennart 1988; Contractor 1990). This is important because the level of risk that is encountered when internationalising will be a contributing factor to the success or failure of the business decision. Therefore, the level of risk accrued or mitigated during point of entry is important.

According to Brouthers (1995) a firm must ask itself what level of control they are willing to acquire in a new market when internationalising. The level of control chosen is directly proportional to the level of ownership gained. Brouthers (1995) separated Miller's (1992) set of risks into two categories one of which was control risks.

Control risks consist of management experience, cultural differences and industry concentration. Management experience was dealt with in section 2.2.1. Here management experience refers to management's desire for control, management's knowledge of the market and knowledge of alternative control mechanisms, for example strategic alliances or joint ventures. Cultural difference is in Miller's (1992) social uncertainties category, part of his general environment section. Here, the literature is referring mainly to the differences in consumer tastes, beliefs, customs and traditions between the home and host countries. Industry concentration is under Miller's (1992) input uncertainty category, part of the industry uncertainty category. Here, the literature is referring to the level of competition in the industry in question. It is these three forms of control risks that will affect management's decision when deciding how much ownership in the foreign subsidiary should be acquired. If these risks are perceived as low the firm will take greater control of the foreign activities. Basically, the lower the control the greater the threat of expropriation risk faced by the firm.

Brouthers (1995) also believes that a firm must also ask what level of resource commitment they are willing to make. The level of resource commitment chosen is directly proportional to the level of exposure in the market. Brouthers (1995) separated Miller's (1992) set of risks into two categories, the second deals with exposure and this is market complexity risk.

Market complexity risks are the traditional risks of political risk, transfer risk, operating risks and ownership risks (Root 1987). In addition there are three other risks; infrastructure, consumer tastes and market demands. Market infrastructure risk was discussed in the international business risk section (2.2.1). Consumer tastes was addressed by Miller (1992) in product market uncertainty, part of the industry uncertainty category. Here consumer tastes refers to the difficulties a firm faces when shifts in demand occur as a result of different consumer preferences in the host market. Market demands was addressed in Miller's (1992) in the competitive and product market uncertainty category, part of the industry uncertainty category. Here market demand refers to the shifts in demand that a firm will face in a host market. These market complexity risks relate directly to the commitment of resources when selecting a mode of entry. If these risks are perceived as low, a firm will choose a strategy in which they provide a greater share of the resources required when establishing entering new markets. Essentially, the higher the resource commitment the higher the exposure faced by the firm.

The first mode of entry to be addressed is foreign direct investment. Foreign direct investment is when the firm invests resources in the foreign location that results in increased control over its product and resources. An example of this is the establishment of a wholly owned subsidiary in a foreign location. A joint venture is also a mode of entry. A joint venture is when the firm shares control and resources with a partner in a foreign location. An example of a joint venture is when a foreign firm shares the control and the costs of establishing foreign activities with an existing domestic producer. Franchising is a mode of entry as well. Franchising is selling the firms' business model and a degree of control and support to an organisation in a foreign location. An example of this is if an organisation in India purchased the franchising rights to sell McDonalds in India. A turnkey is the fourth mode of entry. A turnkey operation involves ‘setting up’ the entire operation in a foreign country and selling it to an organisation in that foreign country. At the conclusion of the transaction there is no ongoing business relationship between the two parties. An example of this is if an organisation has a superior car assembly plant, they can sell the entire plant to a foreign organisation. The second to last mode of entry is licensing. Licensing is selling a firms’ intellectual property to another for a period time and with certain restrictions. An example of this is the clothing company Esprit, they license their clothing designs and brand name to firms in foreign locations for a period of time. The final mode of entry is exporting. This is when the firm just sends it product to a foreign location and has no further contact with the product. An example of this is when a domestic company first starts to sell internationally and concentrates on fulfilling international orders and nothing else.

To demonstrate the attributes of each mode of entry I have developed table 2.3. This table compares each of the six modes of entry to the three decision-making variables. The allocation of a six means that the level of that particular variable is high and a one means that it is low.

Table 2.3: Mode of entry attributes

Mode of entry	Level of control	Level of resource commitment	Risk	Total
Foreign direct investment	6	6	6	18
Joint venture	5	4	5	14
Franchising	4	3	4	11
Turnkey	2	5	1	8
Licensing	3	2	3	8
Exporting	1	1	2	4

What this table suggests is that foreign direct investment has the highest level of control, resource commitment and risk. At the other end of the scale there is the exporting strategy. The exporting strategy has a very low level of control, a low level of resource commitment and a low level of risk. This table when used in conjunction with the risks mentioned above gives an idea of the risks and benefits of each of the modes of entry.

In summary, the relationship between ownership and resources is directly proportional. This means that if a firm wants more ownership they need to invest more resources. According to the literature INVs do not subscribe to the traditional stage models of internationalisation and they use alternative forms of governance when internationalising. However, the literature does not state that INVs consider the level of risk, level of commitment and level of control when choosing mode of entry.

2.3.3 Key points

From this body of literature the following nine key points were created. These key points will prove useful in the analytical section of this thesis.

- Risk associated with management experience – This is one of the major risks associated with deciding the level of control to take in a foreign market.
- Risk associated with cultural differences – This is another of the major risks related to deciding how much control to take in a foreign market.
- Risk associated with industry concentration – This is the final risk associated with deciding the level of control to take in a foreign market.
- Political risk – Political risk is one of the major risks associated with deciding the level of resource commitment for a foreign market.
- Operating risks – Operating risk is the second major risk associated with deciding the level of resource commitment for a foreign market.
- Ownership risk – Ownership risk is the third major risk associated with deciding the resource commitment level of a foreign market.
- Transfer risk – Transfer risk is the fourth risk associated with deciding the level of resource commitment within a foreign market.
- Market infrastructure risk – Market infrastructure risk the fifth risk associated with deciding the level of resource commitment within a foreign market.
- Market demand risk – Market demand risk the final risk associated with deciding the level of resource commitment within a foreign market.

2.4 Environmental Industry

The purpose of this section is to introduce the industry in which this study is placed and to describe the prominence of INVs in the environmental sector. The latter will be achieved using Porter's (1979) industry analysis to show how INVs 'fit' into the environmental sector. The former will be achieved using the limited amount of published research on the industry.

The OECD definition of the environmental industry is 'activities which produce goods and services to measure, prevent, limit and minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems' (International Trade Forum 2001). The studies published pertaining to organisations operating in the environmental industry are sparse. The literature that does exist is either limited to a certain portion of the industry (Gross 1986) or is in the form of industry reports, for example OECD (1997). To the best of this author's knowledge, no literature addressing the internationalisation activities of firms within this industry has been produced.

The OECD definition represents a large diverse industry that cannot be tackled in one research project. Therefore, this research will focus on the equipment for water pollution and control industry. The water pollution and control equipment industry is very attractive for INVs (Gross 1986). This is because the water pollution and control equipment industry is an area where trade barriers are low and each country has diverse needs. This industry is also very receptive to technical advances, which can be important, as the industry is quite proactive in purchasing products based on their merits. Therefore, they remain open to the importation of new innovative devices from abroad (Gross 1996).

2.4.1 Porter's Five Forces

Porter's five forces are used as tools to help reveal trends that represent the position of the firm within their industry (Hill 1999), in this case the position of INVs in the environmental industry. By revealing the position of the firm within the industry the firm is made aware of trends that may result in threats or opportunities to the firm. In this case Porter's five forces model will be used to clarify the role of INVs in the environmental industry. The five forces of; threat of entry, powerful suppliers, powerful buyers, substitute products and jockeying for position (Porter 1979) are addressed respectively below. There is one issue that needs to be addressed before the analysis can begin. In the environmental sector BAT (Beat Available Technology) is prevalent.

BAT is the willingness of the end consumer to choose the product that is best for the job. BAT is not affected by switching costs i.e. the cost of swapping from one product to another. This is because in the environmental sector there are strict standards in place. All products and services need to meet these standards. Therefore, there is a limited amount of basic variation between products resulting in minimal retraining costs and minimal issues in regard to new products being integrated with older products.

2.4.1.1 Threat of entry

There are five barriers that dictate the level of threat a new entrant possesses; economies of scale, product differentiation, capital requirements, cost disadvantage independent of size, access to distribution channels and government policy.

An INV does not necessarily need to possess economies of scale to compete in the environmental sector. The sector is highly fragmented with the majority of firms classifiable as SMEs (Vihersaari 2001). The reason that SMEs can exist is because the environmental sector appreciates BAT (Gross 1986; Vihersaari 2001). This allows INVs to compete on product merit alone without the need for economies of scale in their firm activities.

Product differentiation is another barrier that does not necessarily apply to INVs in the monitoring and measurement sector of the environmental industry. Product differentiation refers to the ability of a new entrant to overcome customer loyalty. Once again, due to the industry's appreciation of BAT, customers are usually willing to purchase new and improved products.

Capital investment is required to create a product for the monitoring and measurement sector due to its high technology nature. However, this is a 'deep-niche' market where major investment in the form of advertising and establishing foreign activities are not necessarily required for a firm to successfully compete internationally (Vihersaari 2001).

Cost advantages independent of size may exist for entrenched firms due to factors such as the experience curve (Hill 1999). This is where an INVs ability to integrate and exploit technological learning through its organic structure can assist. Technological learning allows an INV to integrate knowledge gained through entering new markets and apply that knowledge to new market entries. If this knowledge is internalised, integrated and disseminated efficiently [as

INVs have a tendency to do (Zahra et al. 2000)] an INV can increase its efficiency when entering new environmental markets.

An INV's ability to gain access to distribution channels is dependent on its product. As end users in the environmental industry readily accept BAT, the product itself determines the ease of access to distribution channels (Vihersaari 2001). Therefore, due to the quality of the product and its 'deep niche' nature, access to distribution channels for an INV is the same as for any other new entrant.

Government policy has a large effect on any company in the environmental sector. The law in relation to the environmental technology industry is constantly under debate and new laws have been introduced at regular intervals over the last ten years (Tenbrunsel and Wade-Benzoni 2000). While an INV can lobby government to a limited degree, its advantage lies in its ability to adapt to changes in its environment quicker than entrenched rivals. This allows it to be competitive in the industry.

2.4.1.2 Powerful suppliers

When dealing with INVs in the monitoring and measurement division of the environmental industry, suppliers have varying levels of power. If the firm is involved with the software analysis side of the industry, suppliers of monitoring hardware may have a reduced level of power as any changes in their product may only effect the accuracy of the software. This software can be recalibrate easily. If the firm is involved with physical hardware, the supplier has a greater amount of power as they have the ability to affect changes to their product that may have a great impact on other firm's products. The result is that if the INV has a software-based product it will feel a minimal effect from suppliers. If the INV has a product that is physical it is susceptible to powerful suppliers squeezing the profitability out of the industry (Hill 1999).

2.4.1.3 Powerful buyers

According to Gross (1986), worldwide there are three major end users of the water pollution and control equipmentindustry; government agencies, industrial firms and private farms. The market share between the public and private sectors is approximately 50% each, however the private sector is growing at a faster rate (Vihersaari 2001).

The buyers in this industry are powerful as the product is in essence part of a 'cost centre' and does not contribute to the buyer's revenue. However, there is limited discrimination evident when choosing between products from SMEs or MNEs. There may be customer loyalty to domestic producers by the public sector as they fund the domestic producers. But when it comes to the private sector, the preference of the industry for BAT will usually provide INVs with many opportunities.

2.4.1.4 Substitute products

For an INV in the monitoring and measurement sector there is a real threat from products that could substitute current software or hardware monitoring and measurement products. This is due to the rapid technological advances that are common in this industry. However, as is common with small firms in this industry, they are usually at the cutting edge of the industry. As a result they should remain competitive.

2.4.1.5 Rivalry among existing firms

INVs will face fierce competition from existing firms in the monitoring and measurement sector. As the industry is dominated by SMEs (Vihersaari 2001; Gross 1986) new innovative products will periodically be introduced to the market.

There are several additional factors that will increase the competition among existing competitors other than rivalry involving products. The first of these is that competitors are roughly equal in size (INVs and SMEs) and there are no switching costs. In addition, rivals are diverse in strategies and origins, thus potentially clashing periodically (Hill 1999). Competition in international markets is tough but if the INV can use its three factors of existence, internationalisation of a transaction, foreign location advantages and control over a unique asset it should be able compete and differentiate itself from existing competitors.

As can be seen from the analysis, SMEs and therefore INVs are prominent in the environmental sector. The sectors' ready acceptance of BAT makes it a prime target market for companies with innovative products. The ease with which new products can integrate with existing products is also good for new entrants. The sector also offers a growing market with high profit margins. INVs can operate in this sector without expending excessive resources and still reap the benefits of high profit margins. These points combined with the great number of SMEs in the industry and the lack of published data regarding business activities in the environmental industry provides good reason to investigate this industry further.

2.5 Conclusion

The first purpose of this literature review was to provide literal definitions of the terms and concepts to be used throughout this thesis. This has been achieved by addressing the four bodies of literature. This included, the literature pertaining to INVs. Under this, the identifying characteristics of an INV and types of INVs were addressed. The second body of literature covered INV related risk and this addressed international business risks and risk management. The third body of literature addressed mode of entry, specifically that of MNEs and INVs. The final body of literature demonstrated the importance of INVs to the environmental industry.

The second purpose is to establish and define the key points that will be used in the analytical phase of the research project. The key points summaries (2.1.2, 2.2.3 and 2.3.3) will be used in the analytical phase, as they are the most relevant to the research questions. The methodology section (4.0), will elaborate on how the key points will be used to inform the research method.

3 Research Design

In this section of the literature review the theory behind the methodology will be discussed. To begin with the research problem will be addressed, this will be followed by the research paradigm and finally, the data collection technique will be discussed.

3.1 Research Problem

The literature review has addressed INVs, risk, risk management, mode of entry and the environmental sector. These areas have been addressed with the intent of providing a stable basis for the overall research question. The overall research question is stated below and is followed by five specific research questions. The five specific research questions are preceded with a discussion of their origin and what they will address.

What strategies do environmental INVs use when entering new international markets?

The research question addresses issues in relation to how INVs in the environmental sector manage risk when internationalising. This will compliment the literature by providing further evidence of INV stages in internationalisation and the risk practices of firms in the environmental sector. The literature review highlighted several areas in need of further research, thus bringing focus to this particular research question. This focus has resulted in the creation of five specific research questions.

The first research question is the result of two different issues. The first of these is based on Oviatt and McDougall's (1994, 1999) call for further research into any part of this emerging area of international business. This call is primarily based on the lack of published information. This statement can be used to justify further research into any area of INVs as any contribution to the literature will bolster or refute current theories. The second of these is the result of the contradiction between the incremental model of small firm internationalisation (Rowden 2001; Johanson and Valhne 1990) and the accelerated internationalisation model (Shrader and Oviatt 2000). As pointed out by Rowden (2001), incremental firm internationalisation is still the norm for most businesses, but a growing number of small firms are internationalising at an earlier stage of their development (OECD 1997). Thus the first research question is:

1. How do managers of environmental INVs view their company's management decisions in regard to internationalisation?

The second question addresses the decisions that occur when choosing mode of entry; ownership, resource commitment and risk. When choosing a mode of entry the factors mentioned above are generally accepted as important when considering modes of entry (Anderson and Gatigon 1986; Kognut and Singh 1988; Erramilli and Rao 1990; Brouthers 1995). As the mode of entry literature is primarily concerned with entry modes of traditional business, gathering evidence that these factors either apply or do not apply to INVs in the environmental sector is of interest. This would help to demonstrate the applicability of the ownership level and resource commitment to environmental INVs, therefore, the second research question is:

2. What criteria do managers of environmental INVs use when deciding to enter new markets?

The third and fourth research question will address the risk management techniques used by INVs. Focusing upon the use of the IRM technique (Miller 1992) as opposed to the isolationist approach to viewing risk. The latter theory has such characteristics as a heavy reliance on financial risk management (Brealey and Myers 1998) and is a very ‘reactive’ approach to reducing firm or country risk profiles (Busenitz and Barney 1997; Shrader and Oviatt 2000). The research question will be used to gather information regarding INV risk management in the environmental sector due to its high importance when internationalising. Thus, information will be gained that will either reinforce or refute the use of the IRM technique by INVs. This has generated two research questions:

3. Do managers of environmental INVs use the IRM perspective when classifying risk?

4. Do managers of environmental INVs use the IRM techniques when internationalising?

Due to the nature of the Repertory Grid process it is possible to compare the thoughts of ‘Executives’ and ‘Experts’ in relation to environmental INV internationalisation. This particular topic has not been addressed by the literature in any form to my knowledge. This is interesting because it is necessary to see if the research that has been published on this emerging area is evolving along with business practices. While this question will be addressed it is meant purely as an adjunct to the overall research question. Thus the fifth specific question is:

5. Is there a difference in perception between 'Executive' and 'Expert' participants in regard to questions 1, 2, 3 and 4?

3.2 Research Paradigm

When researching phenomena such as INVs, issues such as, turning tacit knowledge into explicit knowledge and complexities of exploring emerging phenomena become apparent. After reviewing the four underlying assumptions associated with choosing a research paradigm, these being, ontology, epistemology, models of man and methodology it was realised that the most appropriate research paradigm to address these issues was the interpretative paradigm (for a full discussion on the research paradigm please see Appendix B). After deciding upon a research paradigm a data collection technique was then chosen. Problems of the nature mentioned above cannot necessarily be solved using mainstream methods of data collection such as surveys, questionnaires or traditional methods of interviewing. In response, the Repertory Grid technique will be used to collect data for this thesis.

The Repertory Grid technique fits within the interpretative paradigm because of several aspects. The first is both the interpretative paradigm and the Repertory Grid technique consider individuals and the way they create, modify and interpret their environment as the unit of analysis. The second is the Repertory Grid involves the researcher in the data collection process and this researcher involvement during the data collection is allowed, even considered essential to the interpretative paradigm. The third is that information gathered by the Repertory Grid can be analysed using qualitative and quantitative methods of analysis, this is also advocated by the interpretative paradigm. The fourth point is that the Repertory Grid and the interpretive paradigm both see the meaning of knowledge as dependent on context and the individual. Finally, The Repertory Grid specifically tries to identify the manner in which a participant will act in the future. This is inline with the interpretative paradigm, which considers humans to be initiators and not just reactors to external stimuli.

3.3 Repertory Grid Technique

3.3.1 Background

Personal construct theory, the theory under which the Repertory Grid technique was originally founded, was developed by George Kelly and published in his book 'The psychology of personal constructs' (1955). Kelly created Personal Construct theory to operationalise his belief that each individual tries to make sense of the world as they experience it. To make sense of their world individuals constantly form and test hypotheses about their world. When individuals reach adulthood, individuals have already developed a very complex model of the world and their place in it. According to Kelly, these are our personal constructs, our tools used to interpret the world. Kelly's primary focus was on the way the individual interprets their environment and the way they act, as a consequence, to it.

The Repertory Grid focuses on the individual and the way the individual perceives their environment. Therefore, the purpose of the Repertory Grid is to transform the tacit knowledge an individual possesses into explicit knowledge. It does this by eliciting information in the form of bi-polar constructs from the individual. The Repertory Grid uses construct elicitation (defined in the next section) and the interviewing tools accompanying the grid to reveal these constructs. The constructs elicited using the Repertory Grid technique are used to turn the tacit knowledge an individual possesses into explicit knowledge. For example, the tacit knowledge an INV manger uses when deciding how to react to a highly competitive foreign market, will be made explicit.

3.3.2 Research process

The flowchart in figure 3.0 shows each step to be taken throughout the entire Repertory Grid research process. The process begins with the key points that were stated at the end of each section of literature review (step A). The key points are then turned into elements according to the rules set out by Stewart (2000) below (step B).

Stewart (2000) has suggested the following rules regarding element selection to improve the reliability and validity of the Repertory Grid process. Firstly, elements are discrete, which is reflected in the fact that most often elements are simply nouns and verbs, such as, people, objects, events or activities. Secondly, care should be taken not to mix classes of elements in triads, such as, mixing people with things or things with activities. Thirdly, elements should not be subsets of other elements, the more specific and precise the better. Fourthly, a rough scatter over the element area is acceptable as the goal is not precise measurement but rather insights into the phenomena being investigated. Finally, if interest is held in the border between one kind of element and another, then some elements from the other side of the border must also be included.

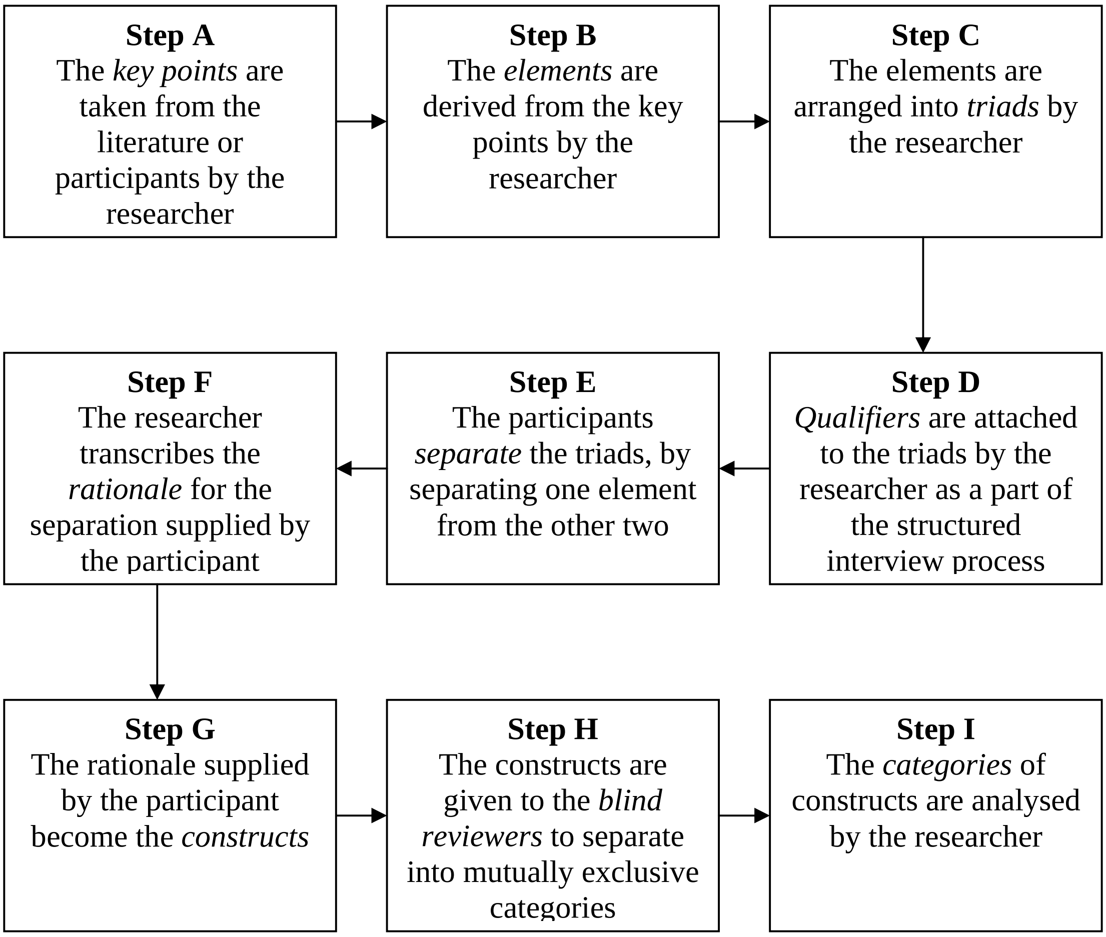
Elements are then put into groups of three, these are called triads (step C). The three elements in the triad represent different perspectives on the phenomena being investigated by the triad. The triads are used to elicit constructs from the participant. During the structured interview the triads have qualifiers attached (step D), these are statements that do not change between interviews and are said before presenting the triads. The purpose of qualifiers is to direct the replies of the participant to the phenomena being investigated.

The triad works by asking the participant to separate one of the elements from the other two (step E). When the reason for the singular element is given and combined with the reason for why the other two elements were put together, the result is a bi-polar construct. It is important to have both dimensions, because a single construct by itself is too vague. The participants' rationale for separating the triad is transcribed without adjustment by the researcher (step F). The transcribed rationale for the triad separation is the construct (step G). An example of a construct could be 'hard worker – doesn't work late' in reference to a triad consisting of the following elements, employee 1, employee 2 and employee 3.

This is done to all the triads, if the researcher thinks that further information is required on a particular construct the researcher can use the laddering technique to gain further information. Laddering is the process of 'going deeper' into a construct elicited from the participant. The constructs of an individual exist in a hierarchy, laddering up the hierarchy requires going 'up the ladder' using 'why' questions, coming down the ladder requires the use of 'how' questions. This does not produce 'new' constructs, just a more meaningful construct regarding the elements.

One method of aggregating the collected constructs is to given them to a blind reviewer (step H). The blind reviewer then puts the constructs into mutually exclusive categories (step I). These categories form the unit of analysis.

Figure 3.0: Research Process using the Repertory Grid Process



3.3.3 Analysis

The categories created from the blind review process (step H, figure 3.0) can be analysed using several methods. The main forms of analysis associated with the Repertory Grid are descriptive analysis, factor analysis and content analysis.

Another broader form of analysis that is associated with the Repertory Grid is based in its theory. This is the degree of similarity and difference between the construct categories created. According to Repertory Grid theory if there is a broad number of categories created, this means that there is limited similarities between the thought processes of the participants. Therefore, in this case a lack of similarity between the construct categories of the participants in regard to certain research question, demonstrates that the participants are not in possession of a core of knowledge in regard to that research question.

Finally, to protect the research from being influenced too strongly by one individual, limits can be placed on the construct categories included in the analysis (Stewart 2000). These limits are at the discretion of the researcher as the level of influence can vary from one study to another. But generally speaking the lower the sample population the higher the limit.

3.3.4 Critical review of Repertory Grid technique

Over the past 20 years the application of the Repertory Grid to situations outside of the 'psychology' sphere has risen (Stewart 2000). One of the disciplines to recognise the applicability and usefulness of this method is the management discipline. There have been many studies in various areas of the management discipline, such as, issues in information technology organisations (Hunter 1997), individual manager's cognitions (Brown 1992), strategic environment (Dutton and Walton 1989), competitive positioning (Daniels and de Chernatony 1995), managerial competencies (Commock and Nilakant 1995) and strategic diversity (Ginsberg 1989).

With the increase in the use of the Repertory Grid for different research agendas, other methods of data analysis have emerged. These new methods of analysis are mainly advances in the quantitative analysis of the constructs elicited from the participants as a result of the Repertory Grid. This is evident in the use of principle component analysis and the creation of advanced statistical software, such as 'Enquire Within', a form of dendritic analysis (Stewart 2000). However, these leaps in advancement have not come without criticism. Cohen and Manion (1986) warn that advanced quantitative analysis can lead to the individual being reduced to a statistic and the interpretative 'meaning' of the information lost. To overcome this the literature suggests the use of statistical methods that are consistent with the purpose of the research (Stewart 2000).

Another shortcoming that is present in the Repertory Grid process is researcher bias. This can happen in several stages on the Repertory Grid process, notably during the interview, the triad separation and the blind review (step D, E and H in figure 3.0). To overcome the research bias in step D the literature suggests the use of a pilot study to make sure that the triads do not demonstrate bias in the results they provide (Stewart 2000). To overcome the research bias that can occur during the interview it suggests the use of a structured interview (Stewart 2000). By doing this all the participants are asked the exact same question in the same manner, thus the responses are not affected by the manner of the researcher. To minimise the researcher bias when creating the construct categories the literature suggests the use of blind reviewers (Stewart 2000). By using blind reviewers to separate the constructs into categories the researcher is effectively excluded from the process, thus reducing bias.

4 Methodology

During the methodology section the following points of the projects will be addressed: the data collection process, this includes the data recording and aggregation, the data analysis and the data sources.

The Repertory Grid technique brings many strengths to this thesis. In relation to this thesis, the strengths of the Repertory Grid are that it allows access to the actual views and perspectives of INV managers in relation to their environment. The second benefit is in the data analysis as it allows for the continuation of qualitative data analysis as used and suggested by McDougall and Oviatt (1994). They suggest qualitative methods are to be used in the data analysis as the success of INVs is highly dependent on the views of individuals in management.

4.1 Data Collection Process

In this thesis the key points have been used to inform the elements to be used in the Repertory Grid process (step A figure 3.0). As a result of the rules governing the creation of elements (see section 3.2) not all key points will be translated into elements. There are three reasons for this; firstly, they may be too intangible to ask participants to comment on. Secondly, the key point may have to be changed slightly to represent a certain perspective on the phenomenon being investigated. This is because the elements in a triad have to represent perspectives from 'both sides of the border'. This means that when testing a phenomenon such as INVs, we must also consider the possibility that it is not an INV. Therefore, in the triads we include elements that describe SMEs as well as MNEs. Finally, for the key points to be considered as viable elements to be used in the research they have to be turned into nouns or verbs, such as; people, objects, events or activities. Table 4.1 shows how the key points relate to the elements that were used in the interviews themselves. This process is consistent with the element creation process in step B of figure 3.0.

Table 4.1: Key point conversions

Key Points from section 2.1.2	Elements in literature review	Elements to be used in triads
• These elements will be used to address research question one. • Element 3 has	1. Origin 2. Control over a unique resource 3. View domestic market as priority	1. Sell mainly to Multinational Enterprises 2. There products show high levels of innovation 3. They develop the domestic market

been inserted to test 'both sides of the border' i.e. it has characteristics of a non-INV firm included. • Element 4 has been inserted to test the participants view towards the international market	4. View international market as priority 5. Alternative governance strategies 6. Entrepreneurial values 7. Technological learning 8. Early internationalisation of transactions 9. Foreign location advantages	of their product 4. They develop the international market of their product 5. There main form of income comes from exporting 6. They actively promote entrepreneurial values 7. They react slowly to changes in the operating environment 8. They engage in international transactions from the birth of the company 9. They utilise foreign location advantages

Key Points from section 2.2.3	Elements	Elements to be used in triads
• These elements will be used to address research question two. • Elements 1, 2 and 3 are general uncertainties • Elements 4,5 and 6 are industry uncertainties • Elements 7, 8 and 9 are firm uncertainties	1. Negative change in political situation 2. Increase in economic uncertainty 3. Increase in social uncertainty 4. Increase in product market uncertainties 5. Higher than expected competition 6. The presence of unfamiliar infrastructure 7. Lack of reliable infrastructure 8. Increase in operating uncertainties 9. Increase in behavioural uncertainty	1. Law change negatively effects organisation 2. Inflation increases in foreign market 3. Staff in foreign market are unhappy with operations 4. Decrease in the demand for the product 5. Competition is higher than expected 6. Unfamiliar infrastructure is present 7. There is a lack of reliable infrastructure 8. Shortage of raw materials 9. Increase in staff theft

Key Points from section 2.3.3	Elements	Elements to be used in triads
• These elements will be used to address research question three. • Elements 1, 2 and 3 are control risks • Elements 4,5, 6, 7 and 8 are market complexity risks	1. Management experience 2. Cultural differences 3. Industry concentration 4. Political risk 5. Operating risks 6. Ownership risks 7. Market infrastructure 8. Market demand	1. Changes in levels of management experience 2. Higher than expected cultural differences 3. Lack of product inputs 4. A political party that is an anti-firm is elected 5. Problems with firm computers 6. Government says joint ventures are required to enter market 7. Marketing mediums difficult to find 8. Market demand changes quickly and dramatically

Key Points from section 2.2.3	Elements	Elements to be used in triads
• These elements will be used to address research question four.	1. Avoidance strategy 2. Foreign location risk 3. Commitment to foreign location 4. Revenue exposure 5. Financial derivatives	1. Do not enter market with possibility of high risk 2. Enters market with possibility of high risk 3. Manages level of commitment to foreign market 4. Firm manages revenue exposure in that foreign market 5. Firms uses financial derivatives to manage risk

The elements above were then grouped into triads that tested each specific research question (step C in figure 3.0). Please see Appendix F for a table of all the triads presented during the interviews.

The interviews were conducted using a structured interview process. Therefore, every participant was presented with the same qualifiers and triads as every other participant (step D figure 3.0). For more detail regarding the interviews, the protocol and actual questioning, please see Appendices C, D and E.

When reading through the interview questions in Appendices D and E the reader will see a slight wording change in the qualifier for the two participant groups. This is because the 'Expert' participants are not in ownership of a company and therefore, have to respond to the questions in reference to their experience with firms.

To minimise possible researcher bias in the creation of the triads and throughout the interview process I created the structured interview transcript and conducted a pilot study. By going through the whole process to the end, it was possible to see where triads were created that had a level of research bias. It was also possible to see if there were any issues with the structured interview approach in the interview itself.

The triads were separated in the standard manner with one of the elements being separated from the other two (step E figure 3.0). The rationale for the separation provided by the participants was then recorded (step F figure 3.0). The rationale was audio recorded and were also recorded during the interview on the participant response form. I used the exact same method to record the data from each participant, so the possibility of data abstraction during the data recording process was minimised. This was achieved by recording the responses of each participant on the exact same participant response form. Therefore, researcher bias was minimised and consistency in the information collected was also maintained. The recorded rationale for each side of the separation then becomes the construct (step G figure 3.0)

The constructs were then coded and given to the blind reviewers to sort into mutually exclusive categories (step H figure 3.0). These categories then became the unit of analysis for the results section of this thesis (step I figure 3.0). To minimise the researcher bias during the data aggregation the blind reviewers were included in the research process (step H figure 3.0). This involved enlisting the help of two colleagues in the data aggregation process who were at the top of their class at the Helsinki School of Economics. The two informed colleagues were given sufficient background about the research process and subject area, this allowed them to complete their task successfully. The two colleagues were not made aware of the five specific research questions, as knowledge of this information would influence their decision making during the aggregation process. During the data aggregation process I was available to field questions. I only answered questions pertaining to the meaning of a certain construct or technical matters (i.e. how many constructs constitute a mutually exclusive category). Using this protocol researcher bias in the most important part of the Repertory Grid process was minimised.

4.2 Data analysis

This thesis used descriptive statistics to analyse the categories of constructs. Descriptive analysis is an appropriate form of analysis to be used in exploratory research. This is because the purpose of the thesis is not to test theory but gather depth into the phenomenon being investigated. The responses given by the subjects were placed directly into the categories displayed in Appendix H ready for analysis. This increased the validity of results as the data to be analysed was not manipulated to a high degree, thus maintaining the link between the data gathered and the individual.

The categories created as a result of the Repertory Grid process will be analysed in the following manner. For example, there maybe eight categories created in response to research question one. Category number three may have eleven constructs, with the remaining seven categories having four constructs each. This means that category number three is the most important category as it has 28.2% of the total constructs. The equation is shown in figure 4.0.

Figure 4.0: Construct percentages equation

$$\frac{\text{Number of constructs in category}}{\text{Total number of constructs}} \times \frac{100}{1} = \text{Percentage of constructs as a whole}$$

This is the method of analysis that is used for any of the percentages displayed in the results and discussion sections of this thesis.

4.3 Data Source

There were 12 participants sourced from companies, universities and government agencies in Finland. This number of participants is well within the usual number of participants used in various other Repertory Grid studies (Phythian and King 1992; Hunter 1997). In addition Tan and Hunter (2000) have stated the number of participants in a Repertory Grid study is smaller due to the fact that it is used to produce depth in the areas of investigation. This is consistent with the purpose of this thesis, which is to gain depth into INV risk management when internationalising, not to test the literature.

There were two groups of participants included in the research. There were seven ‘Executive’ participants (those in senior management positions in an INV) and five ‘Experts’ in the field of small business activities or the environmental sector (academics and those in public policy). Please see Appendix A for a description of the participant selection criteria and a profile of each of the 12 participants.

5 Results

The purpose of this research is to provide depth into the way INVs manage risk when internationalising, not to test hypotheses developed by the literature. Descriptive statistics and data interpretation will be used to analyse the constructs elicited as a result of the Repertory Grid triad separation process.

The constructs have been extracted from the interviews (see Appendix G for a list of the constructs) in the manner described in the data collection process section (4.1). The data displayed consists of the categories the constructs that were separated into in response to the research questions. To view the construct categories and which constructs are in those categories please see Appendix H. To maintain integrity in the results, categories that had input of over 70% from a single participant were omitted.

There are two tables included under each research question. One contains the construct categories for the 'Business' participants the other, the construct categories of the 'Expert' participants.

5.1.1 <u>Question 1 - How do managers of environmental INVs view their company's management decisions in regard to internationalisation?</u>

In relation to the first research question 60 constructs were elicited from 'Executive' participants and sorted into mutually exclusive categories. All together there were seven categories created that represents the participants reactions to their own company's management decisions.

In relation to research question one there were 46 constructs collected from 'Expert' participants who produced 12 construct categories, these are listed below. Three have been omitted as more than 70% of the constructs were from the same individual.

Table 5.1: Construct Categories for Research Question 1

'Executive' Participants	
Number of Constructs	**Construct Categories**
14	Reactions to alternatives

'Expert' Participants	
Number of Constructs	**Construct Categories**
11	Focus

14	Possible problems		4	Unclassified
11	Ways of thinking		4	Changes
9	Market perception		4	Companies
5	Futuristic thinking		3	Markets
4	Values		3	Decisions
3	Current Situation		3	Research
			2	Opinions
			2	Sectors

In Table 5.1 the 'Executive' participants' construct categories that had the most constructs within them were reactions to alternatives (14 constructs), possible problems (14 constructs) and ways of thinking (11 constructs).

In Table 5.1 the construct category that had the most constructs within it for the 'Expert' participants was 'focus' with 11 constructs.

5.1.2 Question 2 - What criteria do managers of environmental INVs use when deciding to enter new markets?

In relation to the second research question 57 constructs were elicited from 'Executive' participants and sorted into mutually exclusive categories. All together there were nine categories created that represents the participants response to international business risk. Two have been omitted as more than 70% of the constructs were from the same individual.

In relation to research question two there were 39 constructs elicited from 'Expert' participants and they were sorted in to the 10 categories below. Two have been omitted as more than 70% of the constructs were from the same individual.

Table 5.2: Construct Categories for Research Question 2

'Executive' Participants			**'Expert' Participants**	
Number of Constructs	**Construct Categories**		**Number of Constructs**	**Construct Categories**
11	Operations		6	Environment
9	Position		5	Management
7	Environment		5	Culture
7	Importance		5	Importance

6	Problems		5	Unclassified
6	People and culture		4	Diversification
3	Organisation		3	Product
			2	Risk

In Table 5.2 the 'Executive' participants' construct categories that had the most constructs within them were operations (11 constructs), position (9 constructs), importance (7 constructs) and environment (7 constructs).

In Table 5.2 the 'Expert' participants' construct category that had the most constructs within it was 'environment' with six constructs.

5.1.3 <u>Question 3 - Do managers of environmental INVs use the IRM perspective when classifying risk?</u>

In relation to the third research question 57 constructs were elicited from 'Executive' participants and sorted into mutually exclusive categories. All together there were nine categories created that represented the participants response to mode of entry. One was omitted as more than 70% of the constructs were from the same individual.

In relation to research question three there were 45 constructs elicited from 'Expert' participants. These constructs were sorted into the 12 categories below. One has been omitted as more than 70% of the constructs were from the same individual.

Table 5.3: Construct Categories for Research Question 3

'Executive' Participants			**'Expert' Participants**	
Number of Constructs	**Construct Categories**		**Number of Constructs**	**Construct Categories**
10	Recommended actions		8	Markets
8	People		5	Catastrophe
7	Applicability		5	Information
7	Control issues		4	Estimations
7	Environment		4	Operations
4	Location		4	Unclassified
4	Possible		3	People

	problems
4	Product

2	Importance
2	Course of action
2	Development
2	Work environment

In Table 5.3 the 'Executive' participant construct categories that had the most constructs within them were recommended actions (10 constructs) and people (8 constructs).

In Table 5.3 the 'Expert' participants' construct category that had the most constructs within it was 'markets' with eight constructs.

5.1.4 Question 4 - Do managers of environmental INVs use the IRM techniques when internationalising?

In relation to the fourth research question 51 constructs were elicited from 'Executive' participants and sorted into mutually exclusive categories. All together there were eight categories created that represented the participants' response to risk management. Four have been omitted as more than 70% of the constructs were from the same individual.

In relation to research question four there were 31 constructs elicited from 'Expert' participants. The 31 constructs were sorted into the eight categories listed below. One has been omitted as more than 70% of the constructs were from the same individual.

Table 5.4: Construct Categories for Research Question 4

'Executive' Participants	
Number of Constructs	**Construct Categories**
11	Risks
11	Reactions
9	Money
8	Management

'Expert' Participants	
Number of Constructs	**Construct Categories**
8	Risk
5	Long term
4	Foreign operations
4	Domestic operations
2	Money
2	Operations
2	Testing

In Table 5.4 the 'Executive' participants' construct categories that had the most constructs within them were risks (11 constructs), reactions (11 constructs) and money (9 constructs).

In Table 5.4 the ‘Expert’ participants’ top two construct categories, by frequency were ‘risk’ with eight constructs and ‘long term’ with five constructs.

5.1.5 Question 5 - Is there a difference in perception between ‘Executive’ and ‘Expert’ participants in regard to questions 1, 2, 3 and 4?

The responses of the ‘Expert’ participants were separated and sorted independently of the ‘Executive’ participant responses. This allowed for a comparison between the constructs of the two groups. The degree of similarity or difference between the constructs reflects the similarities or differences between the two groups in relation to the research questions.

Table 5.5: Comparison of Construct Categories ‘Executive’ and ‘Expert’ participants

Research Question	Number of Similar Constructs	Number of Construct Categories +/-
Research Question 1	0	2
Research Question 2	3	1
Research Question 3	1	3
Research Question 4	2	3

There were few constructs categories that were similar between the two participant groups. The highest number of similar construct categories was in relation to research question two, the least was in relation to research question one. For all four research questions there were more construct categories with the ‘Expert’ participants than the ‘Executive’ participants.

6 Discussion

When interpreting the information gathered from the interviews a frame of reference is required. Each research question will be discussed respectively in this section. First, the key points of the literature that relate to that research question will be mentioned. Second, the results of the research will be discussed in light of the literature. Third, INV mode of entry observations regarding that research question will be stated and followed up by suggestions for further research.

Before we start with the research questions there is one result that is generic for all the questions and that is based on the number of categories. A large number of categories represent a lack of similarity between participants and vice versa. Thus, for the four research questions answered by 'Executive' participants the bulk of their responses were usually clustered in three to five categories. This represents some degree of similarity in the thought process of the INV managers towards the research questions. This implies that to a certain extent they share the same views on mode of entry and risk and will accordingly act in a similar fashion.

The purpose of research question one was to gain insights into the way INV managers viewed their company's management decisions. The key point summary (2.1.2) suggested that there were nine characteristics that indicated whether or not the organisation was an INV. The indicators also represented the way that the managers viewed their decision-making. For instance, if the firm had entrepreneurial values, it indicated that firm was an INV that also meant that management decisions that were made had an entrepreneurial component.

There were seven categories created. The first of those that had a large number of constructs was 'reaction to alternatives'. This represented the responses of the participants in reference to the applicability of elements to their own organisation. Ten participants provided constructs, such as 'fact' and 'applicable' that related the elements, and therefore key points to their organisation. The remaining four participants did not relate the elements to their organisation. In general there were other constructs present in the responses of all 12 participants that indicated the managers various perceptions of their firm. This means that while the manager may relate to some of the elements, they will not relate to all of them. Therefore, managers of INVs will make management decisions that are confined to their own concepts of what characteristics their organisation demonstrates.

The ‘possible problems’ category was interesting because it expressed the negatives involved with international activities. Why this is of importance is because according to the risk literature entrepreneurs are less likely to see problems in their activities due to wishful thinking and self deception (Shapira 1995; Busenitz and Barney 1997). This demonstrates the key points of foreign location advantage and entrepreneurial values. This category suggests that, in this case, INV managers are more aware of possible problems in their company activities than is usually expected of an entrepreneur. This does not necessarily mean that they are any less entrepreneurial than managers of other INVs.

‘Ways of thinking’ was similar to the first category in that it showed how the participants viewed their management decisions. Above all, this category demonstrated the key point of entrepreneurial values. As it demonstrates the many ideas that different participants had when trying to effect growth. However, not all of these ideas were present in the literature.

The forth category is ‘market perception’ and it dealt with how firm activities should be used to enter new markets. This category demonstrated the variety of ways that the participants viewed market entry. The key points that were alluded to were origin, entrepreneurial values, foreign location advantages and controlling a unique resource. There was one other set of constructs that was mentioned, this was market research. This shows the managers’ integration of the key points with other decision-making criteria.

The category of ‘Futuristic thinking’ had 8.3% of the total constructs. This is interesting because it has no direct relationship to the key points. I have mentioned it because it suggests a change in the lack of forward planning that is associated with SMEs. This lack of forward planning is usually blamed on the firm’s concentration on day-to-day survival.

The final category to be mentioned is ‘Values’ with 6.6% of the total constructs. This is important because is means that the managers did label themselves in accordance with the key points of control over a unique resource (innovation) and entrepreneurial values. However, not all participants choose to accept these labels, which is in contradiction to the literature.

The following five observations were made in regard to the first research question. First, Managers of environmental INVs take actions that are within their own personal definition of their organisation. Therefore managers should be aware that their firms are not as capable as they may think or they are more flexible than they may believe. This may result in more opportunities for the company and also reduce errors in organisational management.

Second, managers of environmental INVs are aware of some of the possible problems in their business activities, but are unsure of how to overcome these problems. Managers need to become more aware of problems in their operations and also seek help to manage these problems. This will result in more effective firm activities and should also reduce loss of resources, resources that would otherwise be misspent.

Third, among the mangers in environmental INVs there are a variety of ideas on how to grow the firm and how to enter new markets. This lack of cohesion shows the level of innovation and original thinking that exists in this industry. However, this lack of cohesion also means that many firms are making incorrect decisions and increasing the fragmentation in the industry. Firms should be aware that while their ideas are innovative and may work, but they are not based on solid information and support on this topic should be sought.

Fourth, there is a distinct lack of forward planning by the managers of INVs. A lack of forward planning reduces the firms' ability to grow effectively and manage risk effectively. Managers should implement a more detailed form of forward planning that covers every area of the business. This will allow the firm to focus its resources, thus saving resources, grow successfully and managing risk effectively.

Lastly, few environmental INVs chose to be labelled as innovative and entrepreneurial. An INVs greatest advantage in the world of international business is its entrepreneurial attitude and innovation. These labels should be embraced and advocated by firms, as it is a motivating factor and helps the firm survive in such a competitive industry.

There were three areas of future research identified in response to research question one. The first relates to the forward thinking by entrepreneurs (INV managers). According to the literature entrepreneurs are infamous for their lack of forward planning and lack of risk identification. This thesis has given an insight into what could be their newfound ability to plan ahead and identify risk. This is a point with far reaching implications and should be researched further.

The second is in regard to the different methods used to effect growth in the firm. Further investigation of the methods used by INV managers to effect further growth in the firm could prove useful. Once again by knowing the methods these managers use to grow their firm, especially in its infancy stages before selling overseas, could prove useful for other entrepreneurs.

The final area of further research is the importance placed on market research by INV managers. This is unique, because in the literature the use of market research by INV managers for any purpose in not mentioned directly. I believe that the further investigation into the way INV managers use market research would yield many pieces of useful information in regard to manager attitudes, risk management, risk identification and mode of entry.

Research question two was to provide insights into the decision making process when entering new markets. There have been nine categories identified as having an influence on mode of entry. According to the key points (2.3.3) there are two main issues in relation to mode of entry that preoccupy the decision making process. These are level of ownership and level of resource commitment.

'Operations' had the highest number of constructs with 19.3% of the total constructs. 'Operations' refers to the firm's ability to use its available resources to enter a market with a greater chance of success. The key points of management experience and operating risks were alluded to in the constructs. This means that some of the INV managers did consider the ownership and resource variables on some level.

'Position' had 16.8% of the total constructs and refers to the frame of mind of the participant regarding entering a new market in the first place. The literature states that if the risk perceived in control or market complexity risks is high a firm will not enter. This was demonstrated by the constructs in this category, which showed the managers aversions to entering the market. This does not mean that they won't enter in every case, only when the risks outweigh the benefits.

‘Importance’ was one of the remaining categories and this refers to the importance of entering that particular market. This category demonstrates the other half of risk verse benefit relationship. It shows that managers will look at the risk in the market and on some level compare it to the benefits available in that market.

‘Environment’ refers to issues regarding the general environment, in this case cultural differences were mentioned several times in the constructs. Cultural differences are one of the key points that relate to control risks. Once again we see that on some level the INV managers do look at the control versus resources commitment relationship.

‘Problems’ is mentioned as it relates to the ability of the firm to overcome problems encountered in the foreign market. This particular category relates to the key point of management experience, as it asks the question of the managers ability to overcome those problems. So once again the managers considerations of control risks are present on some level.

‘People and culture’ were mentioned as a factor to be considered when entering new markets. ‘People and culture’ relates to the control risks through the key point of cultural differences. So once again we see the INV managers consideration of control risks on some level.

By looking at the categories we discover that INV managers do consider control risk and market complexity risks. However, they consider control risks more than they consider market complexity risks. They also consider them both in a very narrow manner i.e. only one of the market complexity risk were identified and only two of the control risks were identified. Added to this, there is no proof that they relate the two risk groups together in a meaningful and informed manner.

In relation to research question two, which dealt with providing insights into the decision making process when entering new markets, there was one main observation. Managers of environmental INVs need to pay more attention to the two issues of ownership and level of resource commitment when entering new markets. These two issues are proven and if heeded, will help the internationalising firm with its risk and resource management.

There were two main areas of further research in relation to research question two. The first was the identification of additional considerations that INV managers use when contemplating mode of entry. There were six issues, other than those identified in the literature as important when considering mode of entry decision making, these are ‘operations’, ‘position’, ‘importance’, ‘environment’, ‘problems’ and ‘people and culture’. These additional considerations are worthy of further investigation as they may prove to be an integral part of INV mode of entry decision-making criteria.

The second is when does the perceived risk in the market become too high for an INV manager. The cut off point at which an INV manager will not enter a market is an interesting prospect. This is because this cut off limit may represent the threshold where a market entry is just not possible. This information would be of interest for any firm that deals with foreign market entry.

Research question three was targeted towards gaining insights into the way INV managers viewed risk when internationalising. According to the literature there are two main methods of classifying risk, the IRM technique and the isolationist view of risk management. The key points in section 2.2.3 show the three classifications of risk used by the IRM technique; general uncertainties, industry uncertainties and firm uncertainties.

The most popular category of the eight categories was ‘recommended actions’ with 19.6% of the total constructs. This is the most interesting category because it consists of constructs that are proactive in their identification of risk. For example, one of the constructs was ‘update the pricing’. This was in response to a triad that contained inflation as an international business risk. This is typical of the responses in this category. It shows a proactive attitude to risk that is indicative of the attitude associated with the IRM technique.

Of the eight categories none represented the four traditional risks of political, transfer, operating and ownership risk. However, five of the eight construct categories were associated with the risk categories used in the IRM technique. These were ‘location’, ‘product’, ‘people’, ‘control’ and ‘environment’. This does not demonstrate that INVs use the IRM technique, but it does demonstrate that they do not look at risk using the traditional isolationist manner.

The other construct that rated highly was ‘applicability’ with 12.3% of the total constructs. This is interesting as it demonstrates the participant’s unawareness of many of the international business risks that the literature identifies. This can be stated as responses, such as, ‘no idea’, to triads that consisted of international business risks was typical.

There were two observations that could be extracted from research question three, which was targeted towards gaining insights into the way risk is viewed when internationalising. Firstly, managers of Environmental INVs are unaware of many of the international business risks they may face. Managers should become more aware of the risks they may face, so they may be able to manage their situations better.

Secondly, environmental INVs use aspects of the IRM technique when classifying risk. A move to a more structured approach using the full IRM technique will result in a better conception of the risk faced. This will result in more effective risk management.

There was one main area of further research for research question three. This was in relation to the extent that managers classify risk according to the IRM technique. Discovering the extent to which INV managers classify risk according to the IRM technique will provide a firmer basis for an investigation into the way they manage risk when internationalising.

The fourth research question was targeted towards investigating the risk management techniques of INVs. In relation to risk management the isolationist technique suggests that the risks the firm faces are dealt with separately. The IRM technique suggests that the risks the firm faces are traded-off against one another when internationalising. The key points for this question are; avoidance strategy, financial derivatives, revenue exposure, commitment to foreign location and foreign location risk (section 2.2.3).

When the participants were presented with the triads for research question four these four categories were the result, ‘risks’, ‘reactions’, ‘money’ and ‘management’. The constructs are consolidated within these four categories containing 76.9% of the total constructs. This demonstrates that across all the ‘Executive’ participants the same ideas of risk management have been considered.

The 'risks' category demonstrates that INV managers consider risk as a major factor when deciding what approach to take to risk management. The constructs showed that forms of risk management that incur greater risks are generally not favourable to INV managers despite the possible benefits.

The second category 'reactions' showed the types of reactions participants had in response to the forms of risk management presented to them. The constructs are evenly divided in the support or rejection of risk management. This shows that while some participants are eager to manage their risk (the key points of financial derivatives, revenue exposure, commitment to foreign location and foreign location risk), others are more sceptical of how risk management will benefit them (demonstrating the avoidance strategy key point).

The inclusion of 'money' as a category strengthened the plight of the small business in reaction to under capitalisation. This category showed that cash flows and financial resources are very important when choosing how to deal with risk management. Thus the key point of revenue exposure is very important to an INV and the key point of financial derivatives is not preferred due to its cost. Thus demonstrating the preference for a risk management strategy that is not resource intensive. It also demonstrates the effect of financial strains on the firms' ability to take risks.

The final of the four categories is 'management'. This category demonstrates the participant's ideas on risk management. The fact that the name of this category is 'management' shows that the participants consider risk as a management activity, an activity that can be achieved through management decision-making. This is evident in some of the constructs that were included in this category, for example, 'hands on management', 'manage entry', 'manage resource allocation' and 'management techniques'. This view of considering risk management a form of strategic management is inline with the integrated management technique and relates to the key points of revenue exposure, commitment to foreign location and foreign location risk.

There were two observations in reference to the fourth research. The first is that while some managers are ready to take risks, others are not. However, neither are aware of the risk management tools they can use to minimise their risk. It is believed that if those that take risks were more informed about risk management techniques they would gain more from the risks they take. While those that do not take risks maybe more inclined to take risks if they were better informed, thus increasing their possible business opportunities.

The second is that even though these firms have a lack of financial resources that impacts the risk profile of the firm and how it manages risk. The firm should be aware that they could still take risks irrespective of their financial situation if the correct tools are used.

In relation to research question four there were two further areas of possible research identified. The first was whether or not INV managers are advanced in their risk management or do they just have a disposition that is more accepting of risk. This is worthy of further investigation because it will provide a firmer basis for future research regarding the risk management, or lack of, by INV managers.

The second is that the use of the IRM technique by INVs has to be investigated further. This is an integral part of INV activities and this thesis has shown that it is used to some extent by INVs. The use of this technique will only increase and further research has to be undertaken so academia can keep pace with its development in practice.

The fifth question was to determine if there is a difference in perception between ‘Executive’ and ‘Expert’ participants in regard to INV internationalisation. To do this I compared the construct categories of both the ‘Executive’ and ‘Expert’ participants to each research question. As there has been no literature published on the topic the results cannot be discussed in light of the literature. Therefore, a discussion on the meaning of the results will take place.

There was a greater number of construct categories from the ‘Expert’ participants rather than the ‘Executive’ participants. This lack of consolidation shows that the ‘Expert’ participants rather than the ‘Executive’ participants hold a higher number of perspectives on the first four research questions

In relation to the first question no construct categories were shared between the two sample groups. For the second research question there were three categories that were similar, these were, ‘importance’, the ‘culture’ part of ‘people and culture’ and ‘environment’. With research question three only one category was the same and it was ‘people’. For research question four there were two similar constructs, they were, ‘money’ and ‘risk’.

This shows us two important points of information. The first is that there is little convergence in the way these four areas of business activities and management decisions are viewed by the two groups of participants. The second is that the two groups can learn from this difference in points of view. By knowing that there is little shared knowledge between the groups measures can be taken to minimise any chance of miscommunication between the two groups. This also means that on the areas of convergence the two groups can expect a more fulfilling business relationship.

In relation to the fifth research question there was one main observation. This is there is no ‘official’ common ground between ‘Executive’ and ‘Expert’ participants in relation to how business should be conducted in the environmental sector. This has probably contributed to the many miscommunications between the two groups.

There were two areas of possible further research identified as a result of research question five. The first area is research could be undertaken to investigate the differences in opinion regarding how firms should operate in the environmental sector. This is important, as it would provide a core of knowledge that would help both groups communicate and conduct business in a more efficient manner.

The second is that research should also be undertaken to uncover what core of knowledge INV managers possess. This thesis has showed that the INV managers interviewed in this thesis do not possess the same core of knowledge the literature suggests they should have. I believe that there is a core level of knowledge known by these particular managers. Knowing this information would be useful for helping other SME managers make the transition to the international market.

Table 8.0 will help the reader fully comprehend the information contained within the discussion by providing it in a graphical layout. In the table each question is addressed systematically and the findings and areas of further research summarised for that specific research question.

Table 8.0: Summary of findings

Research question	Summary of findings	Suggested further research
Research question 1 How do managers of env. INVs view their decisions in regard to internationalisation?	• Managers of INVs have definite ideas of which attributes describe their organisation, irrespective of the literature • Entrepreneurial values are mentioned as an attribute that is applicable or not applicable to INVs in various situations • The way a manager perceives their market has a great impact on the management decisions they will make	• The manner in which INV managers perceive their market needs to be investigated further • Further research has to be undertaken into the growth strategies of INVs
Research question 2 What criteria do managers of env. INVs use when deciding to enter new markets?	• Resource commitment issues are considered when choosing mode of entry, however not as much as control issues • INV managers do not have a full understanding of the importance of the two issues when choosing mode of entry	• Further research has to be undertaken into the other mode of entry considerations provided by the INV managers • Further research should also be undertaken into the personal risk perceptions of INV managers
Research question 3 Do managers of env. INVs use the IRM perspective when classifying risk?	• INV managers do have positive conceptions of risk management • INV managers have a lack of knowledge regarding international business risks	• Further research needs to be undertaken into how INV managers classify risk
Research question 4 Do managers of env. INVs use the IRM techniques when internationalising?	• In this case INV managers were at times risk aversive when choosing risk management techniques • Risk management decisions are effected by a lack of resources • Risk management is perceived as a management activity	• The ability of INV managers to manage risk should be investigated to rule out the possibility that they are simply takers of greater risks • The use of IRM technique should be investigated further
Research question 5 Is there agreement between 'Executives' and 'Experts' regarding env. INV internationalisation?	• There is little convergence in concepts between the two groups of participants	• Further research should be undertaken to uncover the core knowledge in use by INV 'Executives'. • This core knowledge can then be tested and refined further by 'Experts'.

6.1 Limitations

There are two primary limitations to this research. The first lies in the fact that the Repertory Grid Technique relies heavily on the judgment of the researcher and, as a student researcher, my skills are not fully developed. I have tried my best to implement the Repertory Grid correctly and faithfully however, I must acknowledge my limited experience as a threat to reliability and validity.

The second primary limitation concerns generalisability. The study was confined to 12 Finnish participants working in the water pollution and control equipment sectors of the environmental industry. Moreover, the statistical analysis of the data was descriptive rather than inferential. Thus, it would not be appropriate to assume that the findings from this sample reflects the population of environmental firms, much less INVs worldwide. Having stated this limitation, it is important to remember that the purpose of the study was not to test theory but to explore. To that end, the findings are very useful as a basis for generating further research, research that tests theory.

7 Conclusion

This purpose of this thesis was to provide insights into the way environmental INVs manage risk when internationalising. This was chosen because of the growing prevalence of INVs and the continued growth and development of the environmental sector.

To investigate this the following research question was developed; 'What strategies do environmental INVs use when entering new international markets?' To address this question the following four bodies of literature were reviewed; INV characteristics, risk and risk management, mode of entry and the environmental industry.

The key points gathered in the literature review were used to inform the elements used as a part of the Repertory Grid process. The Repertory Grid process was used in this thesis because it allowed the tacit knowledge of the participants to be turned into explicit knowledge. There were 12 participants in the research, seven of them were from 'Executives' and five of them were 'Expert' participants from the public arena and academia.

What was discovered is that INV managers do share similar views with the literature in relation to management decisions, however they also have their own attributes. In relation to mode of entry it was discovered that on some level the INV managers use the control risk verses market complexity risks to evaluate mode of entry. But there were several other considerations mentioned by INV managers that they use when choosing mode of entry that was not addressed in the literature. In relation to risk management there were signs that INV managers did use the IRM technique to classify and manage risk. But they did not use it in an informed manner or to its fullest extent. This culminated in a series of observations regarding the way environmental INVs manage risk when internationalising.

Overall the field of INVs is still very new and there are many avenues of research left within it. This is an interesting field that will only grow in strength as trade barriers decrease and technology increases. This also applies to the environmental industry. It has been neglected for too long and it too will grow as individuals become more aware of the physical environment they live in.

Both the field of INVs and the environmental sector need to be looked at more closely. It is hoped that this thesis has highlighted the significance of these two fields, and added clarity to these fields. If the interest of others has been aroused by this thesis then that is also a successful outcome.

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9 Appendix A - Participant Selection Criteria

There were three criteria that the employee of an INV has to meet to be included in the research. The first is that the firm the employee works for is founded independent of MNE activity. The second is that the firm has strong entrepreneurial values and the third is the firm services foreign markets. These criteria for selecting employees of INVs are based on the characteristics of their firm. In addition, the company must also be an environmental firm. An example of a 'Executive' participant is a participant who is a manager or a senior sales employee in a small firm. The participant's firm will provide services and/or products for the environmental sector to clients in foreign countries. The firm may also import products from other countries to service their domestic and foreign clients. The firm was small and had a strong entrepreneurial focus when making managerial decisions.

'Experts' were selected based on their roles within their given institutions. To be included they had to have in-depth knowledge of small business operations or they had to have in-depth knowledge of the environmental sector and have worked with small businesses in that sector. An example of an 'Expert' participant is a professional consultant that helps small firms develop and enter foreign markets. An 'Expert' participant could also be an official who has an in depth knowledge of the environmental sector.

See table 9.0 for the profiles of both the 'Executive' and 'Expert' participants.

Table 9.0: Participant profiles

Participant	Type of participant	Current No. of employees	Previous IB experience	Level in organisation	No. of countries operated in	Years of experience with applicable firms	Years business has been operating
Participant 1	Non-Buss.	N/A	Yes	Consultant	<5	>10	N/A
Participant 2	Business	<7	No	CEO	<5	N/A	3
Participant 3	Non-Buss.	N/A	Yes	Head of Department	<5	>10	N/A
Participant 4	Business	<7	Yes	CEO	>5	N/A	10
Participant 5	Business	>7	Yes	CEO	<5	N/A	6
Participant 6	Business	<7	Yes	CEO	>5	N/A	15
Participant 7	Non-Buss.	N/A	Yes	Director	<5	<10	N/A
Participant 8	Non-Buss.	N/A	No	Research Director	<5	<10	N/A
Participant 9	Business	7	Yes	CEO	>5	N/A	5
Participant 10	Business	<5	No	CEO	<5	N/A	3
Participant 11	Business	5	No	CEO	<5	N/A	7
Participant 12	Non-Buss.	N/A	Yes	Consultant	>5	>10	N/A

10 Appendix B - Research Paradigm

There are two research paradigms, the interpretative paradigm and the normative paradigm (Yorke 1978). The interpretative paradigm is primarily concerned with the individual and understanding the participative world of human experience, it is also used to generate theory. The normative paradigm believes that human behaviour is rule governed, human behaviour should be investigated using the methods of natural sciences and it is used to test theory. The chosen research paradigm will greatly affect all aspects of the research, from the research method, to the data collection, data analysis and discussion of results.

To establish which paradigm is the most appropriate for this thesis the assumptions underlying the paradigms[1] must be looked at. There are four assumptions that will help identify the nature of the research, these are, ontological, epistemological, models of man and methodological assumptions. These four assumptions and their descriptions have been based on two sources of information, that of Burrell and Morgan (1979) and Cohen and Manion (1986).

The first set of assumptions are ontological, ontology is “concerned with the very nature of the social phenomena being investigated” Cohen and Manion (1986). There are two possible sets of assumptions depending on the nature of the research, the first being realist, the second being nominal. The realist perspective implies the phenomena being investigated can be measured on its own as it exists independently of its context, such is the case in the natural sciences. The nominal perspective believes that the phenomena itself has a meaning that is dependent on its context. Its meaning is also dependent on the unique knowledge and experiences that individuals use to interpret the phenomena.

When the ontological assumptions are applied to INV managers, risk management and INV internationalisation, the ontological perspective becomes quite clear. In reference to INV managers, we are dealing with entrepreneurs in international environments that view their situation holistically. These managers make decisions based on their own interpretations of their environment. They do not look at a singular environmental factor and analyse it. In reference to

[1] The assumptions used are the same as those for identifying the social concept of reality. As identifying the social concept of reality has much the same outcome as identifying the correct paradigm, this has been chosen as the best way to outline the interpretive paradigm.

risk management, the IRM technique is itself a combination of factors. It is not about managing a singular observable phenomenon that exists independently of context. The same can be said for the third point, that of INV internationalisation. When an INV chooses to internationalise there are many interrelated factors to consider, none of which can be measured independently. Thus, the aforementioned factors indicate the nominal assumption is the correct approach for this research, as it accounts for the personal elements and interrelated nature of the phenomena being researched.

The second set of assumptions relate to epistemology, positivist and anti-positivist. Epistemology is concerned with the nature of knowledge, how it is acquired and communicated. The positivist stance implies that knowledge "is hard, real and capable of being transmitted in a tangible form" Cohen and Manion (1986). This means that knowledge is the same for everyone and can be acquired and transmitted to anyone without a variation in meaning. From this perspective, the researcher plays an observer role during the data collection and adheres to the natural science method of data collection. The anti-positivist point of view considers knowledge to be "soft, participative and based on the experience and insight of a unique and personal nature" Cohen and Manion (pg 7, 1986). This implies that knowledge is not transferable, the meaning of a phenomena depends on the personal experience of the individual. This is reflected in the data collection technique as the researcher is permitted to be involved with participants in an effort to understand 'their' personal understanding of the phenomena.

This research fits into the anti-positivist set of epistemological assumptions for one main reason. The managers of INVs have a different understanding of how to deal with perceived risk when compared to their MNE counterparts (Shrader and Oviatt 2000). This indicates that an INV managers' interpretation of perceived risk is participative as it differs from their MNE counterparts. To discover their personal interpretation of the information, interviews are required (an anti-positivist data collection technique) to reveal their personal interpretations of the information. This information cannot, however, be gathered using an observation based research method.

The third set of assumptions is models of man-assumptions, which take the form of determinism or voluntarism. Models of man assumptions are focused upon the relationship between humans and their environment, as humans are both the participants and objects of the research.

Determinism implies that the participants will respond mechanically to their environment. Voluntarism implies that the participants are the initiators of their own actions.

In research that has humans, as the participants it is important to make this distinction as determinism implies that the participants will act in a certain way to stimuli thus allowing them to be observed (positivist epistemology). Voluntarism allows the participant to act in many different ways without the prompt of an external stimulus. To understand voluntary actions of the participant, some form of interview is required (anti-positivist epistemology). This indicates that the voluntarism assumption is the most appropriate for this research as managers of INV are proactive in their decision-making.

The fourth set of assumptions is methodological assumptions, these being, nomothetic and idiographic. Nomothetic assumptions imply that the research is "searching for universal laws that explains an observed reality" (Cohen and Manion 1986). . Nomothetic research also implies a quantitative approach because researchers observe phenomena and look for underlying themes. An idiographic approach has several main points in relation to research, the first being that "the principle concern is with understanding the way in which the individual creates, modifies and interprets their world" (Cohen and Manion 1986). The second point is the search for understanding focuses upon different issues and approaching them in different ways.

This research is primarily concerned with understanding the INV manager in relation to the way they create, modify and interpret their world. Therefore, the idiographic set of methodological assumptions, which utilise a qualitative approach to data collection, best suits this research.

Now that the four assumptions of the two paradigms have been addressed, it can be concluded that this research will be conducted using the interpretative paradigm, as the research will be nominal, anti-positivist, from the voluntarism perspective and idiographic. The interpretative paradigm also acknowledges that qualitative research is a method used to gain insights through the discovery of meaning and thus improving our understanding of the whole. This is precisely what researchers are trying to do with the INVs, understand their internal workings by understanding the individual entrepreneur.

11 Appendix C - Worked Example

It should be taken into account that this is only a hypothetical example of an interview. In a real interview it is almost impossible to predict the answer of the participant. However, you can focus the questioning using the qualifying questions and laddering to gather the correct information.

This is a simulation of an interview with the manager of an INV. The triad of elements that have been presented to the manager are, inflation rises suddenly, suppliers are unreliable and high competition. The three elements that have been chosen to investigate INV risk management techniques. The researcher is trying to discover the way the manager interprets his environment when making decisions concerning risk management. The Table 11.1 is an example of an interview that goes up the ‘Ladder’, Table 11.2 is an example of an interview that goes down the ‘Ladder’.

Table 11.1: Worked example 1

The qualifier is ‘Please separate two of the following elements from the other in terms of how they should be managed’		
Speaker	Reply	Result
Manager	Decrease exposure - Change business practices	Initial construct
Interviewer	(Take one pole) Why would you change business practices?	Laddering up
Manager	Because that would be easier than taking insurance	Answer
Interviewer	Why is insurance not good?	Laddering up
Manager	Because it is too resource intensive	Answer
Interviewer	Why is ‘too resource intensive’ important to you?	Laddering up
Manager	We do not have enough resources to take insurance	Answer
Endpoint	Resource intensive - Not resource intensive	Meaning intensive construct

Table 11.2: Worked example 2

The qualifier is 'Please separate two of the following elements from the other in terms of how they should be managed'		
Speaker	Reply	Result
Manager	Decrease exposure – change business practices	Initial construct
Interviewer	How is changing your business practices different from decreasing exposure?	Laddering down
Manager	We would focus on our niche market	Answer
Interviewer	How would you focus on your niche market?	Laddering down
Manager	We would increase our marketing activities	Answer
Interviewer	How would you do that?	Laddering down
Manager	Bring on another person	Answer
Endpoint	Marketing activities - Not surviving	Meaning intensive construct

12 Appendix D - Interview Questions for ‘Executive’ Participants

There are four parts to the interview (not including the introduction), each part is dedicated to gathering information about certain phenomena.

The following are the basic questions that will be asked of the participants, with the exception of additional questions used to elaborate on a particular response by the participant.

Please keep in mind that I am after your opinions regarding the questions, I am not in search of ‘text book answers’. If you are unsure regarding the meaning of a particular question, do not worry, I will explain it further on the day of the interview.

Part 1 (questions apply to research question 1)

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

> You sell mainly to Multinational Enterprises
>
> Your main form of income comes from exporting
>
> You engage in international transactions from the birth of the company

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

> You develop the domestic market for your product
>
> You actively promote entrepreneurial values
>
> Your products show high levels of innovation

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

> You develop the domestic market for your product
>
> You utilise foreign location advantages
>
> You view international markets as priority

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

You react slowly to changes in the operating environment

Your main form of income comes from exporting

You actively promote entrepreneurial values

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

You products show high levels of innovation

You develop the international market for your product

You sell mainly to Multinational Enterprises.

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

You utilise foreign location advantages

You react slowly to changes in the operating environment

You develop the domestic market for your product

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

You engage in international transactions from the birth of the company

You sell mainly to Multinational Enterprises

Your main form of income comes from exporting

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

You engage in international transactions from the birth of the company

You react slowly to changes in the operating environment

You utilise foreign location advantages

Please separate two of the following elements from the other in terms of ‘the way you run your operation’.

You develop the international market for your product

You actively promote entrepreneurial values

Your products show high levels of innovation

Part 2 (questions apply to research question 3)

Please separate two of the following elements from the other in terms of 'which risks were managed in the most similar manner'.

Staff in foreign market are unhappy with operations

There is a lack of reliable infrastructure

Shortage of raw materials

Please separate two of the following elements from the other in terms of 'which risks were managed in the most similar manner'.

Competition is higher than expected

Law change negatively effects organisation

Inflation increases in foreign market

Please separate two of the following elements from the other in terms of 'which risks were managed in the most similar manner'.

Law change negatively effects organisation

Decrease in the demand for the product

Presence of unfamiliar infrastructure

Please separate two of the following elements from the other in terms of 'which risks were managed in the most similar manner'.

Increase in product market uncertainty

Increase in staff theft

Shortage of raw materials

Please separate two of the following elements from the other in terms of 'which risks were managed in the most similar manner'.

Increase in staff theft

Inflation increases in foreign market

Competition is higher than expected

Please separate two of the following elements from the other in terms of ‘which risks were managed in the most similar manner’.

There is a lack of reliable infrastructure
Staff in foreign market are unhappy with operations
Law change negatively effects organisation

Please separate two of the following elements from the other in terms of ‘which risks were managed in the most similar manner’.

Increase in operating uncertainty
Unfamiliar infrastructure is present
Competition is higher than expected

Please separate two of the following elements from the other in terms of ‘which risks were managed in the most similar manner’.

Unfamiliar infrastructure is present
Staff in foreign market are unhappy with operations
Increase in staff theft

Please separate two of the following elements from the other in terms of ‘which risks were managed in the most similar manner’.

Inflation increases in foreign market
There is a lack of reliable infrastructure
Decrease in the demand for the product

Part 3 (questions apply to research question 2)

Please separate two of the following elements from the other in terms of ‘which elements are more important to you’.

Higher than expected cultural differences
A political party that is an anti-firm is elected
Government says joint ventures are required to enter market

Please separate two of the following elements from the other in terms of ‘which elements are more important to you’.

Higher than expected cultural differences

Marketing mediums difficult to find

Faulty ordering software is installed

Please separate two of the following elements from the other in terms of ‘which elements are more important to you’.

Lack of product inputs

Faulty ordering software is installed

Market demand changes quickly and dramatically

Please separate two of the following elements from the other in terms of ‘which elements are more important to you’.

Lack of product inputs

Marketing mediums difficult to find

A political party that is an anti-firm is elected

Please separate two of the following elements from the other in terms of ‘which elements are more important to you’.

Changes in levels of management experience

Market demand changes quickly and dramatically

Government says joint ventures are required to enter market

Please separate two of the following elements from the other in terms of ‘which elements are more important to you’.

Changes in levels of management experience

Marketing mediums difficult to find

A political party that is an anti-firm is elected

Please separate two of the following elements from the other in terms of ‘which elements are more important to you’.

Faulty ordering software is installed

Lack of product inputs

Changes in levels of management experience

Please separate two of the following elements from the other in terms of 'which elements are more important to you'.

Government says joint ventures are required to enter market

Higher than expected cultural differences

Lack of product inputs

Please separate two of the following elements from the other in terms of 'which elements are more important to you'.

Market demand changes quickly and dramatically

Changes in levels of management experience

Higher than expected cultural differences

<u>Part 4 (questions apply to research question 4)</u>

Please separate two of the following elements from the other in terms of 'which ones you feel are the most effective risk management options'.

Do not enter market with possibility of high risk

Enters market with possibility of high risk

Firm limits revenue exposure in that foreign market

Please separate two of the following elements from the other in terms of 'which ones you feel are the most effective risk management options'.

Do not enter market with possibility of high risk

Enters market with possibility of high risk

Manages level of commitment to foreign market

Please separate two of the following elements from the other in terms of 'which ones you feel are the most effective risk management options'.

Do not enter market with possibility of high risk

Manages level of commitment to foreign market

Firm limits revenue exposure in that foreign market

Please separate two of the following elements from the other in terms of ‘which ones you feel are the most effective risk management options’.

Firms uses financial derivatives to manage risk

Enters market with possibility of high risk

Firm limits revenue exposure in that foreign market

Please separate two of the following elements from the other in terms of ‘which ones you feel are the most effective risk management options’.

Firms uses financial derivatives to manage risk

Enters market with possibility of high risk

Manages level of commitment to foreign market

Please separate two of the following elements from the other in terms of ‘which ones you feel are the most effective risk management options’.

Firms uses financial derivatives to manage risk

Manages level of commitment to foreign market

Firm limits revenue exposure in that foreign market

13 Appendix E - Interview Questions for 'Expert' Participants

There are four parts to the interview (not including the introduction), each part is dedicated to gathering information about certain phenomena.

The following are the basic questions that will be asked of the participants, with the exception of additional questions used to elaborate on a particular response by the participant.

Please keep in mind that I am after your opinions regarding the questions, I am not in search of 'text book answers'. If you are unsure regarding the meaning of a particular question, do not worry, I will explain it further on the day of the interview.

Part 1

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

Sell mainly to Multinational Enterprises
There main form of income comes from exporting
They engage in international transactions from the birth of the company

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

They develop the domestic market of their product
They actively promote entrepreneurial values
There products show high levels of innovation

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

They develop the domestic market of their product
They utilise foreign location advantages
View international markets as priority

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

They react slowly to changes in the operating environment

There main form of income comes from exporting

They actively promote entrepreneurial values

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology

Their products show high levels of innovation

They develop the international market of their product

Sell mainly to Multinational Enterprises.

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

They utilise foreign location advantages

They react slowly to changes in the operating environment

They develop the domestic market of their product

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

They engage in international transactions from the birth of the company

Sell mainly to Multinational Enterprises

There main form of income comes from exporting

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

They engage in international transactions from the birth of the company

They react slowly to changes in the operating environment

They utilise foreign location advantages

Please separate two of the following elements from the other in terms of how they best relate to firms that you have dealt with, they may or may not supply environmental technology.

They develop the international market of their product

They actively promote entrepreneurial values

Their products show high levels of innovation

Part 2

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Staff in foreign market are unhappy with operations

There is a lack of reliable infrastructure

Shortage of raw materials

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Competition is higher than expected

Law change negatively effects organisation

Inflation increases in foreign market

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Law change negatively effects organisation

Decrease in the demand for the product

Presence of unfamiliar infrastructure

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Increase in product market uncertainty

Increase in staff theft

Shortage of raw materials

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Increase in staff theft

Inflation increases in foreign market

Competition is higher than expected

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

There is a lack of reliable infrastructure

Staff in foreign market are unhappy with operations

Law change negatively effects organisation

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Increase in operating uncertainty

Unfamiliar infrastructure is present

Competition is higher than expected

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Unfamiliar infrastructure is present

Staff in foreign market are unhappy with operations

Increase in staff theft

Please separate two of the following elements from the other in terms of how companies you deal with react to these international business risks.

Inflation increases in foreign market

There is a lack of reliable infrastructure

Decrease in the demand for the product

Part 3

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Higher than expected cultural differences

A political party that is an anti-firm is elected

Government says joint ventures are required to enter mark

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Higher than expected cultural differences

Marketing mediums difficult to find

Faulty ordering software is installed

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to the firms you have dealt with.

Lack of product inputs

Faulty ordering software is installed

Market demand changes quickly and dramatically

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Lack of product inputs

Marketing mediums difficult to find

A political party that is an anti-firm is elected

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Changes in levels of management experience

Market demand changes quickly and dramatically

Government says joint ventures are required to enter market

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Changes in levels of management experience

Marketing mediums difficult to find

A political party that is an anti-firm is elected

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Faulty ordering software is installed

Lack of product inputs

Changes in levels of management experience

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Government says joint ventures are required to enter mark

Higher than expected cultural differences

Lack of product inputs

Please separate two of the following elements from the other in terms of your experience, which of the following do you think are important to firms you have dealt with.

Market demand changes quickly and dramatically

Changes in levels of management experience

Higher than expected cultural differences

<u>Part 4</u>

Please separate two of the following elements from the other in terms of how they best relate to firms that supply environmental technology.

Do not enter market with possibility of high risk

Enters market with possibility of high risk

Firm manages revenue exposure in that foreign market

Please separate two of the following elements from the other in terms of how they best relate to firms that supply environmental technology.

Do not enter market with possibility of high risk

Enters market with possibility of high risk

Manages level of commitment to foreign market

Please separate two of the following elements from the other in terms of how they best relate to firms that supply environmental technology.

Do not enter market with possibility of high risk

Manages level of commitment to foreign market

Firm manages revenue exposure in that foreign market

Please separate two of the following elements from the other in terms of how they best relate to firms that supply environmental technology.

Firms uses financial derivatives to manage risk

Enters market with possibility of high risk

Firm manages revenue exposure in that foreign market

Please separate two of the following elements from the other in terms of how they best relate to firms that supply environmental technology.

Firms uses financial derivatives to manage risk

Enters market with possibility of high risk

Manages level of commitment to foreign market

Please separate two of the following elements from the other in terms of how they best relate to firms that supply environmental technology.

Firms uses financial derivatives to manage risk

Manages level of commitment to foreign market

Firm manages revenue exposure in that foreign market

14 Appendix F - Triad Separations

All the triads that will be presented to the participants are listed in the Table 14.1, 14.2, 14.3 and 14.4. The tables also show which triads address which research question and which group of risks or characteristics the elements in the triads represent. Keeping inline with the rules of selecting triads in regard to testing the border between one kind of element and another, the first element in each triad, is the element from the 'other' side of the border.

Table 14.1: Triads – Research question 1

How do managers of environmental INVs view their company's management decisions in regard to internationalisation?

Purpose	Triad	Risk or characteristic the element represents
Separate international entrepreneur view from multinational network view	**Sell mainly to MNEs** Large proportion of income comes from exporting Engage in international transactions from the birth of the company	**Multinational network view** International entrepreneur view International entrepreneur view
Separate incremental from accelerated internationalisation process	**Develop the domestic market for their product** Promote entrepreneurial values Products show high levels of Innovation	**Incremental internationalisation** Accelerated internationalisation Accelerated internationalisation
Separate incremental from accelerated internationalisation process	**Develop the domestic market of their product** Utilise foreign location advantages Develop the international market of their product	**Incremental internationalisation** Accelerated internationalisation Accelerated internationalisation
Separate incremental from accelerated internationalisation process	**React slowly to changes in the operating environment** Large proportion of income comes from exporting Actively promote entrepreneurial values	**Incremental internationalisation** Accelerated internationalisation Accelerated internationalisation
Separate international entrepreneur view from multinational network view	**Sell mainly to MNEs** Products show high levels of innovation Develop the international market of their product	**Multinational network view** International entrepreneur view International entrepreneur view
Separate incremental from accelerated internationalisation process	**Utilise foreign location advantages** React slowly to changes in the operating environment Develop the domestic market of	**Accelerated internationalisation** Incremental internationalisation Incremental internationalisation

	their product	
Separate international entrepreneur view from multinational network view	**Sell mainly to MNEs** Engage in international transactions from the birth of the company Large proportion of income comes from exporting	**Multinational network view** International entrepreneur view International entrepreneur view
Separate international entrepreneur view from multinational network view	**They react slowly to changes in the operating environment** Engage in international transactions from the birth of the company Utilise foreign location advantages	**Incremental internationalisation** Accelerated internationalisation Accelerated internationalisation
Separate international entrepreneur view from multinational network view	**Products show high levels of innovation** They develop the international market of their product Actively promote entrepreneurial values	**Incremental internationalisation** Accelerated internationalisation Accelerated internationalisation

Table 14.2: Triads – Research question 2

What criteria do managers of environmental INVs use when deciding to enter new markets?

<u>Purpose</u>	<u>Triads</u>	<u>Risk or characteristic the element represents</u>
To see which is more important control or ownership -By including a control risk with two ownership risks (and vice versa) the participant selects either a control or ownership risk as the most important.	**Higher than expected cultural differences** A political party that is an anti-firm is elected Government says joint ventures are required to enter market	**Management control** Market complexity Market complexity
	Higher than expected cultural differences Marketing mediums difficult to find Problems with firm computers	**Management control** Market complexity Market complexity
	Lack of product inputs Problems with firm computers Market demand changes quickly and dramatically	**Management control** Market complexity Market complexity
	Lack of product inputs Marketing mediums difficult to find A political party that is an anti-firm is elected	**Management control** Market complexity Market complexity
	Changes in levels of management experience Market demand changes quickly and dramatically Government says joint ventures are required to enter market	**Management control** Market complexity Market complexity

	Changes in levels of management experience Marketing mediums difficult to find A political party that is an anti-firm is elected	**Management control** Market complexity Market complexity
	Increase in operating risks Lack of Product inputs Changes in levels of management experience	**Market complexity** Management control Management control
	Problems with firm computers Higher than expected cultural differences Lack of product inputs	**Market complexity** Management control Management control
	Market demand changes quickly and dramatically Changes in levels of management experience Higher than expected cultural differences	**Market complexity** Management control Management control

Table 14.3: Triads – Research question 3

Do managers of environmental INVs use the IRM perspective when classifying risk?

Purpose	Triad	Risk or characteristic the element represents
Separate isolationist from IRM -By having the risks that were managed in a similar manner identified, I should get a feeling for the way in which the participant manages risks. If management techniques such as avoidance, control or co-operation among others demonstrated the use of the IRM techniques.	**Staff in foreign market are unhappy with operations** Lack of reliable infrastructure Shortage of raw materials	**General environmental uncertainties** Industry uncertainties Industry uncertainties
	Competition is higher than expected Law change negatively effects organisation Inflation increases in foreign market	**Industry uncertainties** General environmental uncertainties General environmental uncertainties
	Law change negatively effects organisation Decrease in the demand for the product Unfamiliar infrastructure is present	**General environmental uncertainties** Industry uncertainties Industry uncertainties
	Increase in staff theft Decrease in the demand for the product Shortage of raw materials	**Firm uncertainties** Industry uncertainties Industry uncertainties
	Increase in staff theft Inflation increases in foreign market Competition is higher than expected	**Firm uncertainties** General environmental uncertainties General environmental uncertainties

	Lack of reliable infrastructure Staff in foreign market are unhappy with operations Law change negatively effects organisation	**Industry uncertainties** General environmental uncertainties General environmental uncertainties
	Competition is higher than expected Shortage of raw materials Unfamiliar infrastructure is present	**General environmental uncertainties** Industry uncertainties Industry uncertainties
	Unfamiliar infrastructure is present Staff in foreign market are unhappy with operations Increase in staff theft	**Industry uncertainties** Firm uncertainties Firm uncertainties
	Inflation increases in foreign market Lack of reliable infrastructure Decrease in the demand for the product	**General environmental uncertainties** Industry uncertainties Industry uncertainties

Table 14.4: Triads – Research question 4

Do managers of environmental INVs use the IRM techniques when internationalising?

Purpose	Triad	Risk or characteristic the element represents
To see if the three risk trade-off groups are viable -If the three trade off risks are consistently grouped together that will indicate that the participant relates these risks when managing risk, therefore even though he may not be conscious that he trades them off he still groups them together	**Do not enter market with possibility of high risk** Enters market with possibility of high risk Manage revenue exposure in foreign location	**Risk avoidance** Strategic Risk Management Strategic Risk Management
	Do not enter market with possibility of high risk Enters market with possibility of high risk Manages level of commitment in foreign market	**Risk Avoidance** Strategic Risk Management Strategic Risk Management
	Do not enter market with possibility of high risk Manages level of commitment in foreign market Manage revenue exposure in foreign location	**Risk Avoidance** Strategic Risk Management Strategic Risk Management

	Use financial derivatives to manage risk Enters market with possibility of high risk Manage revenue exposure in that location	**Financial Risk Management** Strategic Risk Management Strategic Risk Management
	Use financial derivatives to manage risk Enters market with possibility of high risk Manages level of commitment in foreign market	**Financial risk management** Strategic Risk Management Strategic Risk Management
	Use financial derivatives to manage risk Manages level of commitment in foreign market Manage revenue exposure in that location	**Financial Risk Management** Strategic Risk Management Strategic Risk Management

15 Appendix G - Elicited Constructs

Table 15.1: Participant 1 responses

Section 1 constructs	
5.Big American companies	Resources and requirements
6.To match physical environmental changes	Big well connected companies
7.Need resources to compete	Open markets
8. To match physical environmental changes	Need resources to compete
Section 2 constructs	
14.Most important need	Lack of 'know-how'
15.Same rules for everyone	Lack of 'know-how'
16.Adds to variability	High variability in operations
18.Required to operate	Can't be predicted
Section 3 constructs	
23.Not as important	Helps company to survive
24. Fundamental environmental factors are accepted	Can be done by management
26. No control over environment	Fundamental work to be done before or throughout moving
27. Industry advances	Can be controlled domestically
Section 4 constructs	
28. short term commitment	Seriously committed firms
30. short term commitment	Proper for each market activity
31. ways to manage risk	Personal commitment

Table 15.2: Participant 2 responses

Section 1 constructs	
1. long term goal	Not possible a the time
2. not valuable	Basic values
3. current operations	Future goals thinking global
4. change strategic focus	Must do to grow
Section 2 constructs	
11. not enter market	Further analysis
12. not bother	Important
13. no idea	Good people and product
14. no idea	Local knowledge
Section 3 constructs	
19. pro-capitalism	Pro local people
20. co-ordination important	Niche marketing important
21. advantage	Co-ordination problems
22. bad atmosphere	Knowledge needed
Section 4 constructs	
28. have enough risk	Good at managing risk
29. don't want to add to risk	Resource choice
31. do not add to risk	Higher capitol and trust
33. cut your losses	Higher capitol and trust

Table 15.3: Participant 3 responses

Section 1 constructs	
1. old companies	Size of the market
2. growth in domestic market	Export support
5. cash cow priority	Follow MNC
7. not international orientation	Big companies
Section 2 constructs	
10. disagree	High market potential
13.not happened yet	Can be managed
15.disagree	Developing new structure and materials
17.difficult to manage	Manageable
18.manageable	Unknown processes
Section 3 constructs	
20. not too bad	Strong personal links
22. not a priority	High availability of inputs
25. not occurred	Real risk of collapsing systems
27. current spirit of the times	Not considered domestically
Section 4 constructs	
29. stay calm for future	To many chances jeopardise future growth
31. not used	Potential growth
32. done that	Not done that

Table 15.4: Participant 4 responses

Section 1 constructs	
2. values	Product
4. fact	Default actions
5. too resource intensive	Piggy back on MNC to enter new market
6.value	Need references
Section 2 constructs	
11. not to be managed	should be managed
12. difficult to manage	Use local people
14.limit access	Difficult to manage
15.limited control	Change operations to meet cultural differences
16.local condition	Work harder at sales
Section 3 constructs	
20. not foreseeable	Encountered problems
21. possibly occur	Not foreseeable
23. knowledge of process	Knowledge of people and market
26. bigger impact in short term	Cultural ‘know-how’
Section 4 constructs	
28. not worth high risk	Will be used to manage faced risk
30. not as effective	More effective
31. does not minimise risk	Management techniques
33. less effective	More effective

Table 15.5: Participant 5 responses

Section 1 constructs	
2. take nothing for granted	Know the market
4. changing market	We make it happen
6.no choice	Use foreign location to service domestic
7. big customer	Limited complexity
Section 2 constructs	
11. Applies but very tough	Use stable countries
12. Product life cycle is shorter	Not apply
15. doesn't apply	Life cycle pressure
Section 3 constructs	
20. encounter issues	Finland is homogenous
21. solved with planning	Dealing with practical problems
27. shift in business operations	Problems for everyone
Section 4 constructs	
28. take the opportunity	Have managed risk
30. negative attitude resulting in denial of risk	Controlled
31. manage	Not needed
33. have enough money	Manage resource allocation

Table 15.6: Participant 6 responses

Section 1 constructs	
2. values	Products match domestic market
4. not important	Very important
5. not considered	Innovative product sold to MNC's
6. react fast	Supply niche market
Section 2 constructs	
11. personal links	Positive countries closer to Finland
12. not visible	Operate according to the rules
14. increase specialisation	Wait until the time is correct
15. suffered under circumstances	Not applicable
Section 3 constructs	
20.not too important	Learn about culture
21. keep operations simple	Use 'just in time' supply chain and multiple suppliers
23. stayed away	Maintained flat organisation
26. stayed away	education
Section 4 constructs	
28. not considered	try all possibilities
30. no choice	No choice had to do it
31. low capitol small company	No choice had to do it
33. low capitol small company	Business relationship management

Table 15.7: Participant 7 responses

Section 1 constructs	
2. my job to promote	Innovate in the domestic
4. not exporting	Not appropriate values
5. flexibility in services	Domestic focus
6. not limited to domestic	Doesn't happen
7. no sales to MNC's	Not happening
Section 2 constructs	
11. doesn't increase in Europe	Does occur
12. stops operations	Interrelated
15. no staff	Direction and development
16. not best practice	Interrelated
Section 3 constructs	
20. crucial for operations	Cultural uniqueness
21. firm	Industry
23. micro	Macro
26.part of effective companies	different
Section 4 constructs	
28. not reasonable	Not incur extra risk
30. no point	To maintain revenue must stay committed
33. very serious option	Not as effective

Table 15.8: Participant 8 responses

Section 1 constructs	
2. how you work	Business practices
4. the sector is real time	Requirements
5. business professions	Our work
6. long term project	Target of research
7. references in new market	Want to see more
Section 2 constructs	
11. not a large impact	More important
12. projects to meet demand	Applicable
14. good working environment	Patients
15. exists in foreign markets	Not important to customers, not important to us
Section 3 constructs	
20. gaining importance	The way things are
21. effects everyone	We manage this strategically
23. diversification	Dynamic working environment
26. not a problem	Not good development of products
Section 4 constructs	
28. not enough money	Standard business practice
30. not true	Need to enter to test products
33. own country	Foreign actions

Table 15.9: Participant 9 responses

Section 1 constructs	
2. not enough resources	Match
4. focused	If it is not broke don't fix it
5. too small to supply	Apply
6. applicable	Current business operations
7. too difficult to keep as a customer	Developed relationships
Section 2 constructs	
11. unexpected	Predictable
12. education	Out of our control
14. operational management	Out of our control
15. managers responsibility	Out of our control
16. education	Out of our control
Section 3 constructs	
20. alternative methods	Reinforce each other
21. alternative methods	Interrelated
26. manage stock levels	Effect each other
27. good human resource operations	Not concrete
Section 4 constructs	
28. no chance	Give it a go
30. not try	Do something about it
31. less knowledge	More knowledge of market
33. just numbers	Hands on management

Table 15.10: Participant 10 responses

Section 1 constructs	
2. not active	Simple approach
4. applicable	Not true
5. not yet selling to MNCs	Have up-to-date innovative product
6. correct decision making	Innovation is from all areas
7. true	Not true
Section 2 constructs	
11. not applicable	Update the pricing
12. diversify product	Can manage
15. product not related to legislation	Predicable problems
16. global perspective	Adjust operations
Section 3 constructs	
20. avoid culturally different markets	Important
21. already managed	Big problem
23. not interested	Important
26. not interested	Related
27. avoid culturally different markets	People with experience important when changes occur
Section 4 constructs	
28. what you get	Decision extremes
30. what you get	Manage entry
33. financial part of company	Management decision making

Table 15.11: Participant 11 responses

Section 1 constructs	
2. not company wide	Dependent on main customer
4. company is small and fast	Future goals
5. shy and too small	Alternative international technologies
7. future direction	Too small
Section 2 constructs	
11. out of our control	Pricing and product quality
12. out of our control	Change product to match environment
14. marketing campaign	Send Finnish staff
16. unpredictable	Research the market
Section 3 constructs	
20. niche marketing	Day to day issues
21. operations	Products
23. one sided relationship	Have effect on company operations
27. inside the company	Essential for a good start
Section 4 constructs	
28. do not like risk	Lack of money
30. no risk	Tools for operations
33. market entry	Secure your income

Table 15.12: Participant 12 responses

Section 1 constructs	
2. international market orientation	Describes company
4. within risk limit	Describes company
5.see small segments in over seas markets	Niches and segments
6.Finns are quite closed in their business operations	Big risk if slow moving
7. have to be small and innovative in their sector	Niches and segments
Section 2 constructs	
11. out of their control	Market information
12. learn in the market	Research prior to entry
14. no experience so they take risks	Negative effect sales
15. change company operations	Need reliable information
16. knows why things are this way	Lack of market information
Section 3 constructs	
20. technical thing	Rooted in cultural differences
23. daily risk	Changes your environment
26. production	Result of cultural differences
27. effect sales	interrelated
Section 4 constructs	
28. risk takers	Managing your risk
31. managing risk	Conservative approach to risk
33. operations	Money

16 Appendix H - Mutually Exclusive Categories

There are eight sets of mutually exclusive categories, these are, one set of categories for each of the first four research questions composed of the answers given by Business participants and the same again but for the 'Expert' participants. The category title is listed at the top of the table with the constructs composing it listed underneath.

Table 16.1: Construct categories for research question 1 – Business participants

Current Situation	**Values**	**Ways of thinking**	**Reactions to alternatives**	**Futuristic thinking**	**Market perception**	**Possible problems**
Current business operations	Values	Limited complexity	Very important	Long term goal	Alternative international technologies	Too resource intensive
Company is small and fast	Values	React fast	Not considered	Future goals	Not yet selling to MNCs	Not possible at the time
Changing market	Values	Develop relationships	Not important	Future direction	Correct decision making	Too small
	Basic Values	Change strategic focus	No choice	Have up to date innovative product	Use foreign location to serve domestic	Product
		Take nothing or granted	True	Future goals thinking global	Know the market	Big customer
		Innovation is from all areas	Not true		Products match domestic market	Too small to supply
		Must do to grow	Applicable		Innovative products sold to MNCs	Need references
		We make it happen	Fact		Supply niche market	Not enough resources
		Simple approach	Apply		Piggy back on MNC to enter new market	Shy and too small
		It its not broke don't fix it	Applicable			Not valuable
		Default actions	Match			Too difficult to keep at a customer
			Focused			Not active
			Not company wide			Dependent of main customer
			Not true			Current operations

Table 16.2: <u>Construct categories for research question 2 – Business participants</u>

Position	**People and Culture**	**Organisation**	**Predictability**	**Relationship**	**Problems**	**Environment**	**Importance**	**Operations**
Stayed away	One sided relationship	Maintained flat organisation	Knowledge needed	Related	Co-ordination problems	Finland is homogenous	Essential for a good start	Alternative methods
Stayed away	Knowledge of people and market	Have effect on company operations	Possibly occur	Reinforce each other	Day to day operations	Bad atmosphere	Not too important	Alternative methods
Not interested	Good HR operations	Inside the company	Not foreseeable	Interrelated	Encountered problems	Pro capitalism	Important	Operations
Not interested	Cultural know how		Not foreseeable	Effect each other	Problems for everyone	Pro local people	People with experience important when change occur	Knowledge of process
Not interested	Learn about culture				Solve with planning	Avoid culturally different markets	Important	Manage stock levels
Big problem	Education				Encounter issues	Niche marketing	Co-ordination important	Dealing with practical problems
Advantage						Avoid culturally different markets	Niche marketing importance	Shift in business operations
Not concrete								Bigger impact in short term
Already managed								Products
								Keep operations simple
								Utilise JIT and multiple suppliers

Table 16.3: <u>Construct categories for research question 3 – Business participants</u>

Location	**Product**	**Recommended actions**	**Applicability**	**People**	**Control issues**	**Manageability**	**Possible problems**	**Environment**
Local knowledge	Product not related to legislation	Further analysis	No idea	Personal links	Out of our control	Can manage	Predictable	Change product to match environment
Positive countries closer to Finland	Pricing and product quality	Not enter market	Not apply	Education	Out of our control	Should be managed	Unexpected	Global perspective
Local condition	Life cycle pressure	Marketing campaign	No idea	Good people and product	Out of our control	Difficult to manage	Predicable problems	Limit access
Use stable countries	Product life cycle is shorter	Diversify product	Doesn’t apply	Operational management	Out of our control	Not to be managed	Not invisible	Unpredictable
		Update the pricing	Applies but very tough	Send Finnish staff	Out of our control	Not bother		Change operations to meet cultural differences
		Wait until the time is correct	Not applicable	Use local people	Out of our control	Difficult to manage		Suffered under circumstances
		Increase specialisation	Not applicable	Managers responsibility	Limited control			Operate according to the rules
		Work harder at sales		Education				
		Research the market						
		Adjust operations						

Table 16.4: <u>Construct categories for research question 4 – Business participants</u>

Effectiveness	**Risks**	**Decision**	**Reactions**	**Knowledge**	**Management**	**Money**	**Choices**
Not as effective	Have enough risk	Decision extremes	Cut your losses	Less knowledge	Hands on management	Low capital small company	Resource choice
More effective	Have managed risk	Management decision making	What you get	More knowledge or market	Business relationship management	Financial part of the company	No choice had to do it
Less effective	Not worth high risk		Not try		Tools for operations	Just numbers	No choice
More effective	Don’t want to add risk		Give it a go		Manage	Higher capital and trust	No choice had to do it
	Good at managing risk		What you get		Manage resource allocation	Low capitol small company	
	Does not minimise risk		Take the opportunity		Manage entry	Secure your income	
	Do not like risk		Do something about it		Management techniques	Have enough money	
	Will be used to manage faced risks		Try all possibilities		Market entry	Lack of money	
	Do not add to risk		No chance			Higher capital and trust	
	No risk		Not needed				
	Negative attitude resulting in denial of risk		Not considered				

Table 16.5: **<u>Construct categories for research question 1 – 'Expert' participants</u>**

Requirements and resources	**Research**	**Decisions**	**Sectors**	**Work**	**Companies**
Requirements	Niches and segments	Follow MNC	The sector is real time	Our work	Big American companies
Requirements and resources	Target of research	No sales to MNCs	Have to be small and innovative in their sector	How you work	Big well connected companies
Need resources to compete	Niches and segments	Want to see more		Business professions	Big companies
Need resources to compete				My job to promote	Old companies
Focus	**Changes**	**Risks**	**Markets**	**Opinions**	**Unclassified**
Innovate in the domestic	To match physical environmental changes	Big risk if slow moving	References in new market	Not appropriate values	Cash cow priority
Growth in the domestic	To match physical environmental changes	Within risk limit	Open markets	Finns are quite closed in their business operations	Describes company
International market orientation	Business practices		Size of the market		Long term project
Not international orientation	Flexibility in services				Describes company
See small segments in overseas markets					
Export support					
Not exporting					
Domestic focus					
Not limited to the domestic					
Not happening					
Doesn't happen					

Table 16.6: **Construct categories for research question 2 – 'Expert' participants**

Diversification	**Risk**	**Macro economics**	**Importance**	**Product**
Effect sales	Daily risk	Marco	Not a priority	Production
Helps company to survive	Real risk of collapsing systems	Industry	Gaining importance	Technical thing
Diversification			Not occurred	Industry advances
Part of effective companies			Crucial for operations	High availability of inputs
			Not as important	
Culture	**Management**	**Micro economics**	**Environment**	**Unclassified**
Different	Not considered domestically	Micro	Dynamic working environment	Not good development of products
Effect everyone	We manage this strategically	Firm	The way things are	Interrelated
Cultural uniqueness	Cab be controlled domestically		Current spirit of the times	Not a problem
Result of cultural differences	Strong personal links		Changes your environment	Not too bad
Rooted in cultural differences	Can be done by management		No control over environment	Fundamental work to be done before or throughout moving
			Fundamental environmental factors are accepted	

Table 16.7: <u>**Construct categories for research question 3 – 'Expert' participants**</u>

Manageable	**Information**	**Course of action**	**Development**	**Estimations**	**Operations**
Can be managed	Need reliable information	Not best practice	Developing new structure and materials	Not a large impact	Change company operations
Manageable	Lack of know how	Unknown processes	Direction and development	Doesn't increase in Europe	Stops operations
Applicable	Lack of know how			Negative effect sales	Require to operate
Manageable	No experience so they take risks			Adds to variability	High variability in operations
Markets	**Work environment**	**People**	**Importance**	**Catastrophe**	**Unclassified**
Research prior to entry	Good working environment	Patients	More important	Does occur	Disagree
Knows why things are this way	Same rules for everyone	No staff	Most important need	Difficult to manage	Disagree
Learn in the market		Not important to customer not important to us		Not happened yet	Interrelated
Lack of market information				Can't be predicted	Interrelated
Market information				Out of their control	
Projects to meet demand					
High market potential					
Exists in foreign markets					

Table 16.8: <u>Construct categories for research question 4 – 'Expert' participants</u>

Money	**Short term**	**Foreign operations**	**Long term**	**Risk**	**Operations**	**Testing**	**Domestic operations**
Money	Short term commit.	Foreign actions	Personal commit.	Ways to manage risk	Standard business practice	Need to enter to test products	Own country
Not enough money	Short term commit.	Not used	Potential growth	Managing risk	Operations	Proper for each market activity	Done that
		Not done that	Seriously commit. Firms	Not incur extra risk			Not as effective
		No point	Stay calm for the future	Risk takers			Not reasonable
			To maintain revenue must stay commit.	Conservative approach to risk			
				Very serious option			
				To many chance jeopardise future growth			
				Managing your risk			