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**Internal Internationalization**  
-a peek into the black box

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## **Abstract**

In the ongoing struggle to maintain and leverage competitive advantage, SMEs are in a constant state of change. A highly visible and researched change is concerning the process by which firms shift business activities across national borders. While the process theory of internationalization helps carve the path of a firm's international expansion, the point of departure of the theory is the boundary of the firm. Thus it fails to capture the depth of the internal turmoil SMEs experience. This boundary creates a virtual black box that encapsulates the entities and activities, the very essence of the firm. To date, academics have acknowledged this phenomenon, but the black box of the firm is an enigma that research finds difficult to penetrate. The concept of dynamic capability provides a framework for capturing what happens internally when firms experience change. Through use of this perspective, the purpose of this theoretical thesis is to elucidate the internal transitions SMEs endure as they go through the process of internationalization. In order to describe this process conceptual models have been constructed. Due to the change-based constructs the models have been built on they can be applied throughout the value chain during any stage of international expansion. The result of this study is the opening of a door to an under-researched concept: internal internationalization; the root of SME's ability to internationalize, and the very force driving the change.

## **Key words**

Commitment, dynamic capability, knowledge management process, internal change, internal internationalization, internationalization, operational capability, processes and routines, relationships, resource base

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## Abbreviations

<i>DC</i>	Dynamic Capabilities
<i>MC</i>	Market Commitment
<i>OC</i>	Operational/Ordinary Capabilities
<i>PTI</i>	Process Theory of Internationalization
<i>PR</i>	Process and Routines
<i>RB</i>	Resource Base
<i>RD</i>	Resource Deployment
<i>SME</i>	Small and Medium Enterprise

## Chapter 1: Introduction

### 1.1 Background

In the realm of international business studies, internationalization<sup>1</sup> is a topic that has drawn the attention of researchers for decades. From the basis of the firm, the seminal work of Johanson and Vahlne, (1977) has analyzed the process of entering foreign markets. This perspective took a focus on how firms expand by use of their resource base, as opposed to other studies which focus on economic factors. This work has been an important basis for providing a better understanding of the process and the methods of how firms internationalize in the way they do.

Internationalization, as described by Johanson and Vahlne (1977) is a process by which firms incrementally increase business activities in foreign markets. These incremental increases are based on a development of trust through relationships; understanding of the foreign market developed through the firm's ability to learn; as well as the leverage of resources possessed by the firm. The result is the level of commitment the firm dedicates to the foreign market in terms of business activities. The theory has been adapted over time in response to the changes in technology, as well as the increased speed of business, to include a heightened importance of networks (Johanson and Vahlne 2009). This updated approach to the theory has shown that the relationships within the business networks are critical pipelines for sharing information that is needed by internationalizing firms, as well as how the internationalizing firm uses the business networks to change their level of commitment to that market.

The subsequent studies that contributed to and complemented the Johanson and Vahne study addressed not only the process of internationalization, but also the characteristics of the firms and the foreign markets (Autio 2005). By using the process theory of internationalization which had a greater focus on large and mature firms as a point of comparison; further studies looked into how the process differed with small- and medium-sized enterprises (SMEs) (Bilkey 1978 ;Wiedersheim-Paul, Olson and Welch 1978 ;Ried 1981 ;Welch and Luostarinen 1988 ;Dichtl, Koeglmayr and Mueller 1990 ;Melin 1992 ;Calof 1994 ;Ellis and Pecotich 2001 ;Lu and Beamish 2001 ;Johanson and Vahlne 2003 ;Nummela 2004 ;Johanson and Vahlne 2006,2009 ;Schweizer 2010). A common theme was that it was not the size of the firm that was a precursor for international expansion; rather that the effectiveness of the expansion effort was dependent on how the SME used the resources in their possession. The resources

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<sup>1</sup> See endnotes for clarification on use of terms

alluded to here are the combination of human capital, knowledge, and capabilities within the firm in the home country. In this light, the process of internationalization is very interesting on an SME level because not only do they have to do more with less, but every decision can have an immediate and large impact on the firm. While these characteristics have been addressed by a stream of research that look at the outcomes of entrepreneurial expansion of SMEs (Oviatt and McDougall 1994 ;Acs, Morck, Shaver and Yeung 1997), this study is aimed at examining how these SMEs actually go through the process.

Continuing research has been important in identifying the ways in which SMEs internationalize (Johanson and Vahlne 2009 ;Schweizer 2010 ;Sommer 2010). Insofar, the majority of research to date has had an external focus on the process by giving attributes to the firm based on economic indicators, industry characteristics, and the firm environment. This has created a broad understanding of the firm as a whole going through this process of internationalization. Therein lies the area of interest; because while these studies reveal what happens or changes within a firm, the focus is on the outcome. It is taken into account that the SME will change, but the research only touches the surface of how it is done. The primary starting point has been to point out that managers and decision makers are often the drivers for change. Johanson and Vahlne (1977,2003,2006,2009) address the importance of this in their discussion of business networks and commitment during internationalization, and by doing so indicate that the activities of managers within the firm are a significant part of the process. As well, Lu and Beamish (2001) illustrate the need for seeking new business contacts and overcoming foreignness which refers to the relationship building that is used by firms to operate in foreign markets. Yet how these activities are carried out is dependent on actors within the shadowy realm of the firm.

Understanding of this process of how firms learn and grow internally has the potential to create greater knowledge in relation to the process theory of internationalization. Indeed, it has been recognized by researchers that there is something more happening within the firm in the home country as the internationalization is taking place. This has been addressed in resource-based studies that make reference to what internal changes have to be made (Penrose 1995 ;Conner and Prahalad 1996 ;Rugman and Verbeke 2002), as well as how human-resources are affected in organizational change and internationalization (Hendry 1996). Already in 1959, Edith Penrose had addressed the issue of the ‘black box’ of the firm. That is, a firm is a combination of human and physical capital that is bounded by administrative limits (Penrose 1995). Thus what can be seen in the resource-based literature

is *what* is happening with the firm's resources during growth, and by extension, internationalization from a firm-level perspective. At this point there is very thin coverage in the literature linking the internationalization process to the internal environment, or 'black box' of a firm. How do SME's change the way they do things in order to expand to new markets? How do they reconfigure their existing resources and capabilities in order to support the change? While there are studies on the relative ability of firms to change (Teece, Pisano and Shuen 1997 ;Cepeda and Vera 2007 ;Helfat, Finkelstein, Mitchell, Peteraf, Teece and Winter 2007), there is a clear need to create a link to the internationalization literature as a way to see how SMEs overcome the challenges they face. Therefore the behavioral approach of both the process theory of internationalization and the dynamic capability framework are very relevant for this application. In keeping with the school of thought that the resources within a firm are the source of growth for a firm (Penrose 1995), this study will only focus on that aspect. In order to get a deeper understanding about how the resources within a firm are affected and utilized, the aspect of dynamic capabilities is most relevant. Dynamic capability is a concept that describes the changes in the inherent characteristics of the resources and capabilities of a firm to attain competitive advantage (Teece et al. 1997 ;Helfat et al. 2007).

But how can dynamic capability link internal change to the internationalization theory? The foundation of dynamic capability is that it lays the foundation to describes the internal changes in firm (Teece et al. 1997). By delving deeper into the theory surrounding dynamic capability, it can be seen that firms must possess certain capabilities that elevate them from simply operating, into changing and growing firms (Teece et al. 1997 ;Teece 2000 ;Zollo and Winter 2002 ;Ambrosini et al. 2009). Furthermore, when exploring how firms are able to change; the observation is made that changes occur in different frequency and intensity (Ambrosini et al. 2009). The underlying reason to why firms change differently is based on the knowledge management capability of the firm (Grant 1996 ;Teece 2000 ;Cepeda and Vera 2007 ;Helfat et al. 2007). Thus by understanding the components of the internal change process, it is possible to apply the dynamic capability framework to analyzing the internationalizing SME.

The use of the dynamic capability framework is important in describing the process of internal change; and it has not yet been specifically applied to analyze the changes that happen within a firm during the internationalization process. This is interesting because often the outcome and challenge of internal change are reported as the result of the internationalization process, but not analyzed in depth. Until now there has been surprisingly



little research done on the actual connection between the internationalization process, and what happens within the firm. One study by Melin (1992), suggests that the majority of international business studies either address what happens within the firm, or between firms. In addition, Nummela (2004) broaches the topic in her study of change in internationalization. One of her conclusions is that the internal change is more multi-faceted than expected, and deserved additional study. The seeming gap of literature in this area suggests that this is a facet of the process to be looked at more closely. By analyzing the process of internationalization and the process of internal change in continuity, important learning opportunities about the interrelated topics can emerge. Perhaps the process of ‘internal internationalization’ of firms is different than what the process theory of internationalization posits because it not only addresses the re-structuring of the different value chain activities; but also the way knowledge is used to drive change within the context of an internationalizing firm. Indeed, how does the process look when the different departments have to modify existing processes and routines while moving their activities abroad? This process is especially interesting in SMEs as small changes in the value chain functions will have immediate and recognizable impacts on the rest of the firm (Penrose 1995 ;Schweizer 2010). Thus this paper takes a theoretical approach in looking at how these factors influence a SME’s ability to internationalize.

## **1.2 Purpose and contribution**

The process theory of internationalization has been studied and improved repeatedly through empirical and theoretical testing; and the dynamic capability framework is an elusive but exciting approach to describe how firms manage their resources and capabilities to facilitate change. Yet neither concept is sufficient on its own to explain how firms overcome the internal turmoil they face during international expansion. Many scholars and researchers have studied and contributed to the field of the process theory of internationalization and they have made a thorough analysis about why and how the firms cross borders, how the firms meet the externalities, and how they take advantage of opportunities and overcome challenges. However, limited numbers of studies have been conducted that actually address the internal environment of the firm when it goes through internationalization. Firms may need to realign, redesign, reconstruct, rebuild or even acquire new resources and capabilities to support the internationalization process. How they do this, and how difficulties are overcome signify an area of research that has the potential to improve the understanding of internationalization behavior and outcomes of firms. The dynamic capability framework provides the basis for

describing this internal change in general; and this theoretical paper goes one step farther by placing it within the context of the internationalization process.

Thus the purpose of this paper is to study: *how SMEs go through the process of internal change that supports the internationalization activities in a new market.*

Thus this paper takes a theoretical approach in order to build a foundation that can be empirically tested. Due to the highly complex process that is involved in both the internal and firm level change conceptual models have been developed; and detailed conceptual models have been created. The models can be applied to any part of the value chain of a firm during any stage of the internationalization process. By forging a link between the internal change and the firm-level change, the process of ‘internal internationalization’ is brought to light. The models in this paper provide a conceptual basis for further research on SMEs, and also contribute to the literature of the internal internationalization process.<sup>ii</sup>

### **1.3 Scope and limitations**

The scope of the study is theoretically focused on SMEs going through international expansion. The area of research within this scope is how new information can be transformed into the commitment a firm makes to a new market during internationalization. The reason for the choice of SMEs is due to their resource restrictions, internal changes are closer to the surface and more easily observed. In addition, they have to be more creative and reactive as opposed to large firms with more resources. To limit the focus of the study, the assumption is made that the SME has already made the internationalization decision. In addition, although the environment of the firm is important, this study will go in from the boundary of the firm. Within the firm the personnel are highlighted as being the mechanisms for how change is made. In particular, the focus is on the managers who are responsible for the decision making within their respective job functions in the value chain of the organization. These managers are seen to be the ‘administrative glue’ without whose specific skills the firm would cease to possess valuable and scarce resources (Penrose 1995; Conner and Prahalad 1996).

### **1.4 Thesis disposition**

*Chapter1:* comprises of the background discussion, research purpose, contribution of the paper, scope and limitations. *Chapter2:* contains the conceptual framework of the paper. *Chapter3:* introduces the conceptual models and propositions based on the conceptual framework. *Chapter4:* includes the discussion of the propositions and conceptual models, the implications of the paper and suggestions for further research.

## **Chapter 2: Conceptual framework**

In order to forge a link between internal change and the internationalization processes, the conceptual framework is developed based on the process theory of internationalization, and the dynamic capability framework. The process base and cyclical nature of these streams of research allow them to be combined as a means of explanation for the process of how firms experience internal changes during international expansion. Further, the connection between the internal and external environment of the firm is illustrated in a model that has been modified from previous studies.

### **2.1 Internationalization theory**

The concept of internationalization is not a new business term, yet the idea of what internationalization encompasses, is so large and broadly defined that it means different things to different people. Due to the process aspect of this study, a process definition of internationalization has therefore been selected. In their 1988 study, Welch and Luostarinen defined internationalization as ‘the process of increasing involvement in international operations.’ While this definition provides a starting point for studies, it also includes all possible aspects such as economic, institutional and relational perspectives. It is on the latter approach that this section will focus, as it is the intent of this study to make an analysis of how SMEs use the human capital within the firm to gain and transfer knowledge that will help guide the internationalization changes. Thus the way internationalization theory will be organized is first based on firm understanding of foreign markets, how the firms internationalize, and finally how the different parts of the firm are involved in the process.

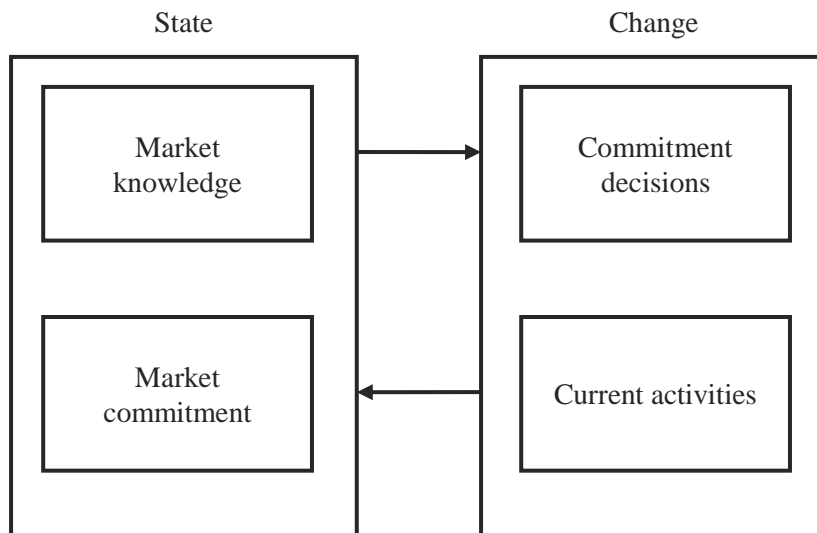
#### **2.1.1 Psychic distance**

As a firm, and especially an SME begins the process of internationalization, they try to make an analysis of how much is known about the foreign market environment they are about to enter. The basis for this knowledge is typically embedded within the current knowledge existing in the firm; and the analysis is carried out by the managers in the firm. Any firm is guided by the decisions made among the management staff; and those decisions are based upon experience gained not only through the current work situation, but also from other aspects of their lives (Johanson and Vahlne 1977 ;Bilkey 1978 ;Wiedersheim-Paul et al. 1978 ;Dichtl et al. 1990 ;Penrose 1995). In the early stages of internationalization, or even before a firm begins to export, it is the experience, background, and disposition of the management that can determine which course a firm will take when the opportunity to export arises (Bilkey 1978 ;Dichtl et al. 1990). As managers and hence firms, are connected to the markets

via business relationships and networks, there is a connection between market influences and managerial interpretation (Johanson and Vahlne 2003). The reach of this connection however, extends as far as the firm's knowledge of activities in a market, and has been termed as psychic distance. The psychic distance refers to how much a firm knows about activities, languages, documents, legislation, and additional requirements in other markets (Johanson and Vahlne 1977). That is to say, managers within the firm may not know how to guide their departments effectively due to the limitations of their psychic distance. These limitations are also called the 'liability of foreignness' and refer to the lack of pertinent knowledge a manager has about a foreign market (Lu and Beamish 2001 ;Johanson and Vahlne 2009). This situation is an influencing factor in internationalization, because the attitude of the decision-making manager can often determine the short-term course of the firm (Bilkey and Tesar 1977). These conditions are more prominent in SMEs due largely to size and experience constraints, and because of these constraints SMEs are more likely to follow the incremental change process as introduced by Johanson and Vahlne (1977).

### **2.1.2 The process theory of internationalization**

Internationalization as a process is where firms incrementally move business activities abroad, as described in the process theory of internationalization (PTI) (Johanson and Vahlne 1977). The process model is comprised of states and changes that the firm passes through as it begins to engage in international activities. The PTI posits that a firm will internationalize based on the state variable of (1) market knowledge. The more a firm knows about a market, the more (2) commitment of resources changes are taken. The subsequent changes (3) in current business activities reflects the performance and execution of the decision, and results in the other state variable of (4) market commitment (Figure 1). In addition to the state and change variables are the perceptions of the firm about the new market. According to the PTI firms will first expand to markets that are similar to the home market. This has been explained by psychic distance, and refers to how much a firm knows about and can relate to actors in the other market. As the firm learns more about the market, trust is developed which is a mechanism for increasing commitment, and as commitment increases, more knowledge is gained about the new market and psychic distance decreases (Johanson and Vahlne 1977). Thus because the actions in the model are based on human behavior and development, the model is dynamic and cyclical.



**Figure 1: The model for explaining the Process Theory of Internationalization. Source: (Johanson and Vahlne 1977)**

Within the framework of the model, firms go through the stages of no response to or fulfillment of unsolicited orders, ad-hoc exporting, development of an agent in the foreign market, and eventually establishment of firm-based activities in the foreign market such as sales subsidiaries or production. The model (Figure 1) explains this through its construction on a state and change basis, in which trust and commitment are directly linked to the actions of the firm. Furthermore, trust and commitment are the dynamic factors which are part of the feedback loops that propel the firm forward in additional business activities in foreign markets (Johanson and Vahlne 1977 ;Bilkey 1978 ;Johanson and Vahlne 2003,2009).

As a firm goes through the steps of international expansion, it begins to change. The business activities that once only supported the firm in the domestic market now need to be adapted to support international activities. But to what degree, and is it a planned transition? How does it begin? Wiedersheim-Paul et al. (1978) suggested that the activities of a firm are influenced by the way the primary decision-maker responds to the domestic market, as well as the interactions within the firm. However, in response to criticism of the PTI (Anderson 1993), the framework has been modified to take into account the significance of relationships in the internationalization process (Johanson and Vahlne 2003). Thus, while the early internationalization activities a firm takes on are in response to information from the markets, how firm handles this, and how it is able to adapt is related to the relationships the firm is engaged in.

### **2.1.3 The business network view of internationalization**

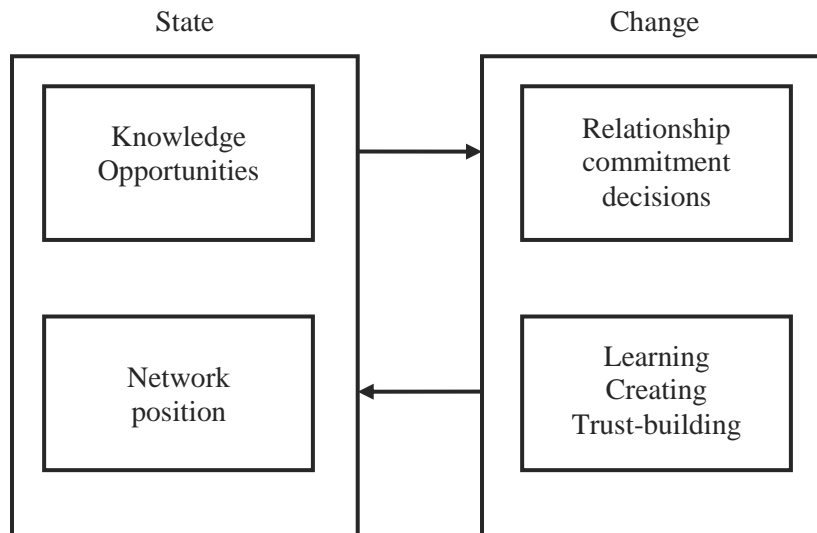
The relationship-building for the manager and thus the capability for overcoming psychic distance is not only limited by her personal experience, but also by the size of the firm she

works in. In studies that have been done on the size of internationalizing firms, the resources of a firm are primarily taken into account. Beginning with the seminal work of Penrose in 1959, researchers have built on the premise that SMEs have less access to resources, particularly financing, for growth and expansion activities. A common theme of these studies is that the limited capability of SMEs to access resources such as financing leads them to be more innovative in leveraging their other resources, specifically: employees (Ried 1981 ;Penrose 1995 ;Acs et al. 1997 ;Reuber and Fischer 1997 ;Sommer 2010). Therefore the managers must be able to identify innovative, and by extension internationalization capabilities in SMEs, by awareness of the knowledge and skills of their employees. Moreover, managers are also required to participate in gathering knowledge through their business relationships that can be used within the firm to maintain and grow their competitive advantage during internationalization (Johanson and Vahlne 2003,2006,2009).

It is in this key role of acting as a doorman of the firm that manager's relationship skills are the most important. For as noted by Johanson and Vahlne (2003), it is by building trust and commitment within the business network that the opportunity for growth and expansion will arise. As well, through these networks, the transfer of knowledge is crucial in overcoming psychic distance. Moreover the ability to detect which relationships have greater importance to the future of the firm is a skill that becomes critical when the SME works to overcome barriers to internationalization such as market information and contacts through use of the various social networks (Acs et al. 1997 ;Ellis and Pecotich 2001 ;Johanson and Vahlne 2003). In other words, the size disadvantage of SMEs from an economic resource perspective is countered by the skills and knowledge possessed by the managerial team and department staff. This external-internal parallel awareness allows SMEs to be more responsive to changing opportunities in the market, as well as increasing the speed of internationalization activities.

The significance of the business network in internationalization has been much touted since the original theory was posited in 1977 (Johanson and Vahlne), and has led to the development of an updated model for internationalization based on relationships in the business network (Figure 2). In this new perspective, the psychic distance interpretation of how firms relate to foreign markets has been replaced with the liability of outsidership (Johanson and Vahlne 2009). This sense of insider/outsiderness has been developed to indicate the importance of how it is the knowledge that is gained from the relationships in the business networks that really helps firms internationalize. Now the state and change aspects

of the model demonstrate this flow by starting at the point of (1) knowledge opportunities present in the business network which leads to (2) relationship commitment decisions in which the dyadic exchange of information nurtures (3) learning, creating and trust-building that results in (4) the network position of the firm (Johanson and Vahlne 2009).



**Figure 2: The business network internationalization process model - the 2009 version.**  
 Source: (Johanson and Vahlne 2009)

The significance of this update to the model is that it puts a greater focus on the accumulation of knowledge through the building of trust and commitment in the relationships a firm has in their business network (Johanson and Vahlne 2009). This is important on two levels: first the individual managers who are involved in the relationships are seen as the focal point in the relationships and responsible for the recognition of opportunities; second, it is not only the manager, but the firm itself that needs to be able to learn from the information it is receiving in order to be able to proceed in internationalization process. Thus the model is still relevant for showing the process of change (Johanson and Vahlne 1977), and although it provides greater insight into the factors that help a firm change, it is still focused on the firm level. In order to go deeper into the process, the interior change of the firm is analyzed to create a connection between what happens within, and what is observed externally. In this study, the approach taken is that the firm has already recognized a motive for internationalization, and has begun the process. Yet despite the rational decision to internationalize, the way the activities in the home office are managed may not coincide with the PTI model.

### 2.1.3 The internal transition

There is some factor, or some ability that enables certain firms to capitalize on their business networks and relationships in order to overcome outsidership and propel the firm forward

through internationalization (Johanson and Vahlne 1977 ;Wiedersheim-Paul et al. 1978 ;Welch and Luostarinen 1988 ;Melin 1992 ;Penrose 1995 ;Lu and Beamish 2001 ;Johanson and Vahlne 2003,2006 ;Casillas, Moreno, Acedo, Gallego and Encarnación 2009 ;Johanson and Vahlne 2009 ;Schweizer 2010). As has been discussed, the size of the firm and the experience of the managers are oft-approached topics in internationalization literature. The critical connection in these studies is that a smaller firm demands greater knowledge and skill from its managers in order to make a change such as internationalization. In addition to the existing knowledge base, additional information is received through the business networks of the firm. The way the firm interprets and learns from this input is how the outsidership to new markets is overcome (Johanson and Vahlne 1977,2003,2009). However the process by which the new knowledge is shared is dependent on the internal communication structure of the firm, as well as the level of the pre-existing knowledge about the new inputs both on an individual and collective basis (Casillas et al. 2009). Thus the existing knowledge base of the firm is a precursor for how easily new knowledge can be absorbed and transferred within the firm.

One part of the context that remains to be developed is an outward – inward parallel comparison between internal activities stages of internationalization during the process. According to the PTI, the first steps of internationalization are involved with response to unsolicited orders. Reflecting on the PTI model, this relates to the state of the departments involved with customers and suppliers, and their knowledge and experience in dealing with that particular market (Johanson and Vahlne 1977). The order fulfillment rests on the knowledge and experience of the people in the involved departments to manage the documents, languages, and other requirements required to make the transaction. Further, the degree of psychic distance not only for the managers, but also the staff can play a role in how capable any one department is in carrying out their function to make the export sale. Moreover, by experiencing the export actions, knowledge is built about the process; and in combination with pre-existing knowledge determines the speed with which the activity becomes comfortable (Johanson and Vahlne 1977 ;Casillas et al. 2009 ;Johanson and Vahlne 2009). As these actions are experienced during the internationalization process, the result is a change within the knowledge and experience-base of the personnel, and thus within the firm itself.



### 2.1.4 How the box becomes a box

Research until this point has discussed the firm from the boundary outwards; but the analysis of the changes within the firm has received limited attention. This is mentioned in relation to Penrose's description of the interior of a firm as a 'black box' (Penrose 1995). Although the result of the change and the struggles are described after the experience, the description of the internal transition is deserving of greater analysis. A study by Nummela (2004) addresses these internal changes during the internationalization process by looking at the *context of change*. Using a model based on the work of Welch and Luostarinen (1988), Nummela shows the relationship between externally visible actions of the firm (export strategy, operation mode, product, market), and internal firm features (organizational structure, finance, personnel) (Figure 3).

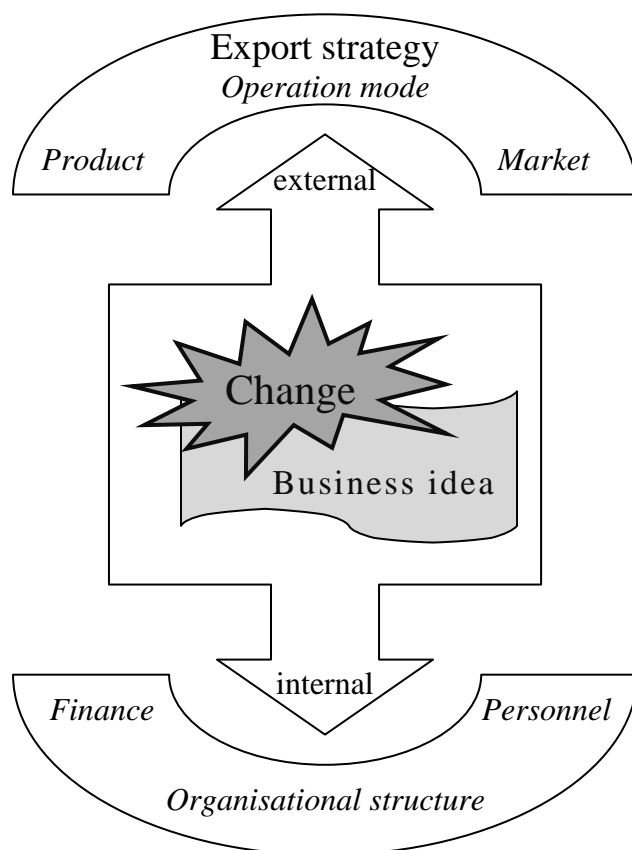


Figure 3: Model linking internal change to internationalization. Source: (Nummela 2004 p.408)

What is captured in this model is *what* changed within the firm during internationalization and has been categorized by first- and second-order change. Although the study was explicitly meant to capture the context of change, by using the framework created, the model can be adapted to look at the process of the change. The way this can be applied is by looking at the combination of external factors as the 'foreign market environment'. This is also encompassed by the idea of industry competition, barriers to market entry, and the relative bargaining power of suppliers and customers (Porter 1985), and in this case is assumed to apply to all firms. Therefore the part of this

model that is relevant to the internal focus of this study is the internal context of change, and is reflected in the 'organisational structure' and 'personnel'.<sup>iii</sup>

#### ***2.1.4.1 Context of the change***

In order to apply and modify the model seen in Figure 3, it must be first identified what is being considered. The work of Porter in his 1985 study, introduced the concept of the value chain within a firm. This encompasses all the primary (production, sales, marketing, logistics, customer service) and supporting (administration, human resources, accounting, legal) activities conducted within a firm that contribute to the creation of value for the firm (Porter 1985). By referring to the model in Figure 4 the value chain activities can be identified as making up the ‘organizational structure’ and ‘personnel’ segments. That is, the organizational structure encompasses the different functions in a firm that are responsible for the value chain activities; while the personnel are the actors that enable the activities, and thus support the change process (Porter 1985).

The focus on SMEs is of great importance here because due to the lack of size, resources and experience that are likely to be found in large and well-established firms, SMEs are much more likely to expand in the incremental steps described in the PTI (Johanson and Vahlne 1977). By incorporating the change in value chain activities into the internationalization process, it is possible to describe a likely pattern of change: Beginning with the ad-hoc sales, the sales and distribution functions are affected in the order fulfillment process. As the firm gains experience in dealing with a foreign market and establish a distributor, more support activities related to knowledge of doing business such as the regulatory guidelines, as well as marketing activities become involved (Johanson and Vahlne 1977).

As the degree of internationalization increases, so too does the degree of involvement of value chain activities, since they are all interconnected in the operations of the firm (Porter 1985)(see Figure 4). As well, the business plan and strategy of the firm will dictate which activities have greater importance to the firm, and these activities will thus have a comparable level of development (Nummela 2004). This also means that value chain activities will develop the changes to their processes and routines at a different rate, as the knowledge from the internationalization activities become important in different time frames. The significance of this is that different value chain activities change at different times and to different degrees, but still need to have coordination between each as they are interdependent (Porter 1985 ;Penrose 1995).

#### ***2.1.4.2 First order change***

The business activities within a firm are what make the day-to-day transactions possible, and thereby promote the life and growth of a firm (Johanson and Vahlne 1977). Within each

business activity in the value chain the cumulative knowledge and skills of the personnel are what enables a firm to change. The process of this change begins with the introduction of new knowledge to the firm via the business networks (Johanson and Vahlne 2003). Through adaptations and small incremental changes to normal business activities, personnel can learn to include new activities involved with internationalization into their regular routines (Casillas et al. 2009). These changes are consistent with the business plan and strategy of the firm, and also follow the incremental approach described in the PTI and are therefore defined as first order changes (Nummela 2004). What makes these changes difficult to recognize both on a firm and individual level, is that they are a part of the growing experience and knowledge of the personnel, and are tightly intertwined with other firm activities as shown in Figure 4 (Johanson and Vahlne 2003 ;Nummela 2004 ;Casillas et al. 2009).

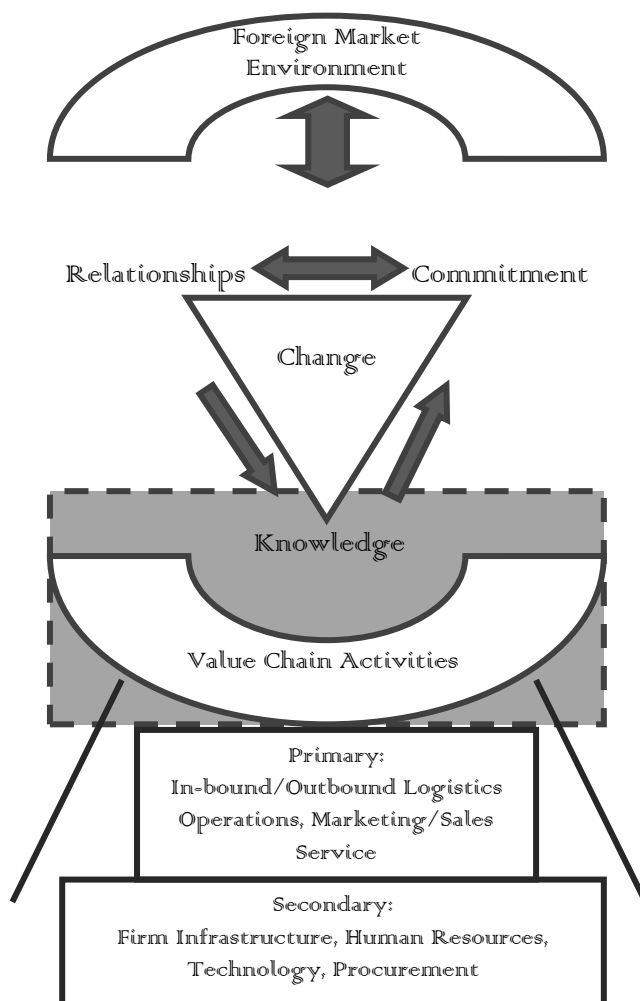
#### **2.1.4.3 Second order change**

Sometimes a firm is faced with the necessity to make a change that is fundamentally different from the existing business plan. It could involve outsourcing, product modification, market entry approach, or organizational structure. While the change in itself may not be so drastic, the impact it has on the firm is; and when taken in the context of internationalization, can require changes to the core of the business itself (Nummela 2004). For example, once a firm has gained some experience with exporting, they decide to establish an agent. While this is a natural progression in the PTI, the effects in the home office are great; many business aspects within the value chain are involved, and the firm is required to provide enough resources to support the level of commitment it has made to the market (Johanson and Vahlne 1977 ;Anderson 1993). The home office may lack the capacity and know-how to carry this out but not realize this until already in progress. Faced with time constraints, managers must adapt quickly, gain new knowledge, increase the resource base, and sometimes change their strategy in order to get the transition completed (Nummela 2004 ;Casillas et al. 2009). The result may be the development of a new department to manage a particular value chain activity, as well as change in firm hierarchy and strategy.

#### **2.1.5 A key to the black box?**

The internationalization process theory has been shown to take an relationship, knowledge, commitment, and firm level approach in describing how the firm goes through the process of internationalization (Johanson and Vahlne 1977,2003,2009). However, researchers have pondered and touched on the linkages between the resource base of a firm, and the process it takes through internationalization (Johanson and Vahlne 1977 ;Penrose 1995 ;Nummela

2004). Indeed it has been identified that relationships, knowledge and commitment are major factors for internationalizing firms, and is illustrated in Figure 4 as interrelated with internal change (Johanson and Vahlne 2009). This is an important foundation for analyzing the outcome of the change, but the underlying process of how the firms learn and integrate the knowledge to fuel the change is hidden. What seems to result is that the firms are often analyzed as a whole, with the attributes of the human resources given to the firm itself instead of identification on an individual level (Nummela 2004). Although the influences of



**Figure 4 Internal Internationalization Model 1a. Sources: (Porter 1985 ;Nummela 2004 ;Johanson and Vahlne 2009), Authors' adaptation**

managers and skills of the firm are discussed at length as mechanisms of this process, they are analyzed in the literature from an external perspective. That is, the firm is studied as a unit or vessel that experiences the process of internationalization, and grows and changes strategy and structure in response to the environment it operates in. Thus, the result is a wealth of studies showing that firms change and grow and reorganize when they internationalize yet lack an analysis of the internal transition (Melin 1992). To bridge this gap, the dynamic capability framework will be applied to address the process from a more in-depth and internal perspective. This theoretical paper will unveil each of the steps an SME takes internally in regards to its value chain activities by applying the dynamic capability framework. This application

will provide the key for explaining the previously shadowy phenomenon of how the changes within value chain activities happen on an internal level when a firm goes through the major change of international expansion.

## 2.2 Introducing dynamic capability

Helfat et al. (2007) denote that the value chain activities of a firm comprise of the resource base and capabilities. The resource base (RB) can range from tangible, intangible to human assets, basically pointing to everything a firm can draw upon to accomplish its goals (for example: production plants, buildings, inventory, financial capital, employees). Capabilities are categorized into *operational/ordinary capabilities (OC)* and *dynamic capabilities (DC)*. Winter (2003) defines operational capabilities as the capabilities that enable a firm to earn a living at present. Without these, the firm would not be able to collect revenue from its customers that allow it to finance activities like purchase of raw material, making payments, supporting production, and shipment of products. The operational capability is responsible to make sure that the business runs as usual from day to day; it is the fuel that keeps the firm running to generate rent. Operational capability comprises of processes including production, shipment and purchase of raw material; and routines which are behaviors that are learned, highly patterned, repetitious, or semi-repetitious (producing 5,000 units/day, shipping 4,500 units/day, taking inventory count on a daily basis). If we consider a hypothetical firm that keeps earning its living by producing and selling the same product, on the same scale and to the same customer population, over time it will require its operational capability (that is the processes and routines of the firm have) to be carried out on a regular basis (Winter 2003).

In a nutshell, operational capabilities are zero-order capabilities which are required to run the firm on a daily basis. However, simply possessing these operational capabilities are not enough for the firms to keep up with the changing environment. It is the dynamic capabilities that are first-order capabilities and are responsible for modifying the operational capabilities of the firm to tackle the changes (Zollo and Winter 2002 ;Winter 2003).

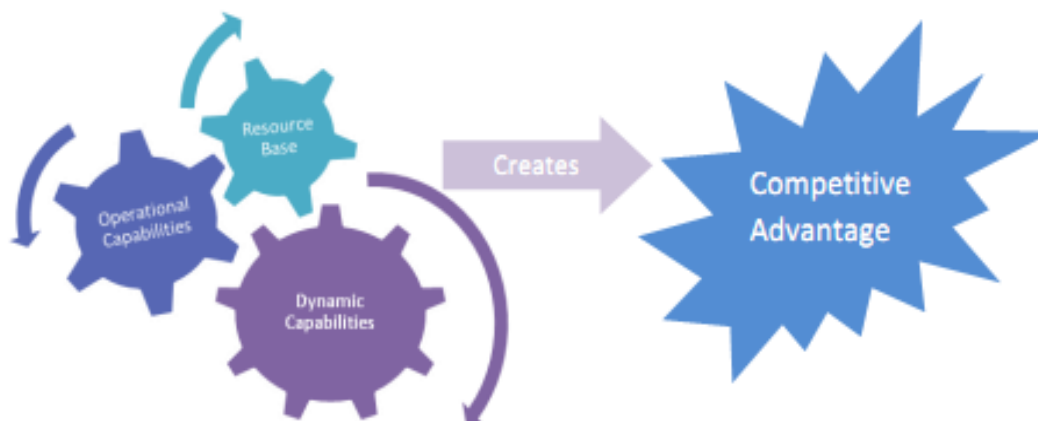
### 2.2.1 Defining dynamic capability

According to Barney et al. (2001), in order to maintain VRIN characteristics (valuable, rare, hard to imitate and imperfectly substitutable) of resources; they have to be refreshed at par with the changing environment.

Teece et al. (1997 p.543) noted, the 'real key to a company's success or even to its future development lies in its ability to find or create a competence that is truly distinctive'. Moreover, Teece et al. (1997) emphasize that the dynamic capability perspective focuses on the capability of an organization operating in a rapidly changing environment to create new resources, and to renew or alter its resource mix. So to build a distinctive

competence firms must align or alter their resources and capabilities to tackle the dynamic environment they are operating in. Teece et al. (1997) explicitly argue how the dynamic capability view could prevail over the limitations of the resource based view. According to them dynamic capabilities are the firm’s capabilities to incorporate, construct, and rearrange the internal and external resource base and capabilities to address rapidly changing environments. Zollo and Winter (2002 p. 340) believe, ‘a dynamic capability is a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness’. More recently, Wang and Ahmed (2007 p. 35) have defined dynamic capabilities as ‘a firm’s behavioral orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities and, most importantly, upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage’.

To summarize, dynamic capability is the combination of capabilities the firm possesses to create, extend, renew, modify, allocate, deploy and upgrade its operational capabilities constantly using its resource base to attain or maintain their competitive advantages (Winter 2003 ;Cepeda and Vera 2007 ;Helfat et al. 2007). The dynamic capability perspective focuses on how firms can change their capabilities over time and do so persistently in line with the changing environment with the means of their resource base. Possession of dynamic capabilities helps the firm to deal with any environmental changes by altering both the operational and if need be the dynamic capabilities (changing the product design, incorporating lean management production system, building a new plant) by utilizing the resource base. Dynamic capability is the wheel that mobilizes the resource base to change the operational capability (processes and routines) which in return creates firm specific competitive advantage as displayed in Figure 5.



**Figure 5: How dynamic capabilities relate to operational capabilities and the resource base. Sources: (Eisenhardt and Martin 2000 ;Winter 2003 ;Cepeda and Vera 2007) Authors’ compilation**

### **2.2.2 Dissecting dynamic capability**

Dynamic capabilities are embedded within the processes, routines and knowledge of the firm. However, it is stressed that people are the lever for turning the wheel of dynamic capability, it is the inherent inner qualities such as skill, leadership, strategic decision making and knowledge management that mobilizes the resource base with the help of the dynamic capabilities in turn to affect and alter the operational capabilities (processes and routines) to create competitive advantage (see Figure 5) (Eisenhardt and Martin 2000 ;Cepeda and Vera 2007). Knowledge management is the basis that nurtures the other dynamic capabilities. Skill, leadership and strategic decision making capabilities are built and developed through learning as it allows tasks to be performed more effectively and efficiently, often as an outcome of experimentation, and permits reflection on failure and success (Zollo and Winter 2002). Knowledge resides in the operational processes, procedures, routines and structures, within the manager's skills, experience and expertise, also within other employees of the firm, in the database of the firm or even in the history of the firm. Knowledgeable people and organizations can frame problems, then select, integrate and augment information to come up with solutions. An individual who knows how to select, interpret and integrate information into usable knowledge of utmost importance (Teece 2000). That is why knowledge management is undoubtedly of high importance for firms. A firm which does not know how to acquire, create, integrate and use knowledge will not have the capability to change and grow.

### **2.2.3 Knowledge management - the critical foundation**

The knowledge management process comprises of three steps: i) knowledge accumulation ii) knowledge integration iii) knowledge dissemination (Grant 1996 ;Zollo and Winter 2002). *Knowledge accumulation* mechanisms encompass both the relatively passive experiential processes of 'learning by doing' and the more planned cognitive processes (process of acquiring knowledge by the use of reasoning, intuition, or perception) of learning (Zollo and Winter 2002). These learning processes are responsible for two types of activities: one directed towards the operational functioning of the firm (both staff and line activities), which has been referred to as operational capabilities; the other dedicated to the modification/renewal of operational capabilities, which has been denoted as dynamic capabilities (Teece et al. 1997). Important collective learning happens when individuals express their opinions and beliefs, engage in constructive confrontations, share their experience and challenge each other's viewpoints (Teece 2000 ;Zollo and Winter 2002). The extent of knowledge accumulation depends on the innovative capacity of the firm (Grant

1996). *Knowledge integration* is defined as embedding the accumulated knowledge into the prevailing processes and routines. The integration process can occur on an individual or group level of the firm; such as when knowledge is generated within the sales team that the product design needs to be changed, and can then be integrated in the production process by changing the design of the product. The propensity of knowledge integration depends on the absorptive and adaptive capacity of the firm (Grant 1996). *Knowledge dissemination* means to share the knowledge that has been learned and integrated. Explicit knowledge is knowledge which can be written down and can be easily codified, communicated, assimilated, stored, and retrieved. This knowledge is thus stored in the form of a process manual or company database and can be accessed and understood by all. However tacit knowledge such as know-how, skills, and practical knowledge of organizational members is harder to disseminate. It requires training, communication and constant repetition to spread tacit knowledge (Zollo and Winter 2002 ;Cepeda and Vera 2007). Knowledge dissemination requires a firm to have both adaptive and absorptive capacities (Grant 1996).

The knowledge management process gathers or creates the knowledge needed to stimulate dynamic capabilities which in turn changes (integrate, upgrade, reconfigure, renew and recreate) operational capabilities with the help of the resource base. Figure 6 shows the flow of a firm’s knowledge management process and the link to dynamic capabilities; which in turn changes the operational capabilities and impacts the value chain.

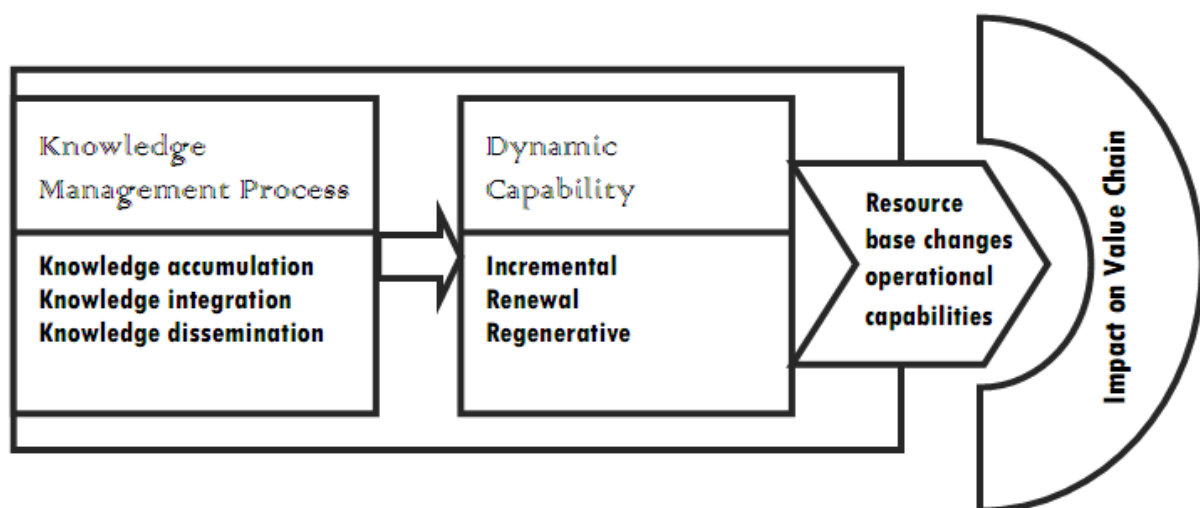


Figure 6: Link between knowledge management process and dynamic capability. Sources: (Grant 1996 ;Teec 2000 ;Zollo and Winter 2002 ;Ambrosini, Bowman and Collier 2009) Authors’ compilation



### **2.2.3.1 Characteristics required for the knowledge management process**

Wang and Ahmed (2007) identified three characteristics a firm requires to make the knowledge management process effective; they are innovative, absorptive and adaptive capacity. *Innovative capacity* refers to a firm's ability to develop something new in response to the change in external factors. Possession of innovative capacity enables the firm to come up with new ideas and solutions during the knowledge accumulation phase (Grant 1996 ;Teece 2000 ;Zollo and Winter 2002). *Absorptive capacity* is the firm's ability to identify and learn from other parties (suppliers, competitors, other parts of the value chain) and incorporate external/internal information within the existing processes and routines (Wang and Ahmed 2007). Absorptive capacity facilitates knowledge integration and dissemination process (Grant 1996 ;Zollo and Winter 2002 ;Cepeda and Vera 2007). *Adaptive capacity* is the ability of the firm to assimilate the learning and be flexible enough to use available resources to accommodate the changing external factors (Wang and Ahmed 2007). It is essential for the firm to have both absorptive and adaptive capacity for the knowledge dissemination process (Zollo and Winter 2002 ;Cepeda and Vera 2007).

Thus, the more the firm is equipped with innovative, absorptive and adaptive capacity the better it is in utilizing the knowledge management process. Innovative capacity is required for knowledge accumulation, on the other hand absorptive and adaptive capacity is required for knowledge integration and dissemination. The knowledge management process helps to identify, learn, embed and spread new knowledge internally to change the operational capabilities within the value chain activities by mobilizing the resource base; this entire phenomenon is denoted as dynamic capability.

### **2.2.4 How managers drive knowledge management and dynamic capability**

Teece (2007) and Helfat et al. (2007) believe an important component of dynamic capability is the people of the firm, in particular the managers who have the knowledge, skills, experience and expertise to receive and interpret triggers and decide whether to respond to them or not. Ambrosini and Bowman (2009) have referred to the seminal work of Penrose in 1959, stating that value creation is not the result of the possession of the resources but from their use, and how much value is created would depend on how these resources are altered and deployed. Penrose (1995) also argued that to grow, firms need to keep developing their expertise and to innovate; and that manager plays an important role in this aspect. Managers need to have entrepreneurial skills aside from managerial skills. She defines entrepreneurial

skills as ‘a function of imagination whereas a managerial competence is largely practical execution’ (Penrose 1995). So it is clear that resources are not unique characteristics that a firm possess, it is the ability to change the resource base or operational capabilities that separates the firms from each other.

#### **2.2.4.1 Relating manager perception to order of change through dynamic capability**

Ambrosini et al. (2009) analyzed dynamic capability further and according to them there are three types of dynamic capability. First, *incremental dynamic capabilities* are the capabilities that focus on the continuous improvement of the firm’s resource base. These changes might be slow and limited. Second, *renewal dynamic capabilities* are those that create, adapt and reconfigure the resource base. Here new resources are created or introduced; or resources are combined in new ways (Ambrosini et al. 2009). Lastly, Winter (2003) stresses that the resource base must be refreshed thus, the final type of dynamic capability is, *regenerative dynamic capabilities* which are responsible for altering or reconstructing the firm’s current set of dynamic capabilities. When existing dynamic capabilities are perceived to be insufficient to create an impact upon a firm’s resource base the dynamic capabilities themselves need to be renewed. So, the firm needs to change the way it creates, extends or modifies its resource base (Ambrosini et al. 2009).

It is manager perception that defines which types of dynamic capability needs to be put into use (Adner and Helfat 2003). When knowledge created in the knowledge management process (knowledge accumulation, integration and dissemination) mobilizes incremental or renewal dynamic capability it can be noted that the firm is going through first order change, on the contrary if knowledge created is vast enough to mobilize regenerative dynamic capability then it can be noted that the firm is going through second order change (Nummela 2004 ;Ambrosini et al. 2009). Both incremental and renewal dynamic capabilities affect the operational capabilities directly through the resource base; but regenerative dynamic capabilities affect the incremental or the renewal dynamic capabilities. This means that regenerative dynamic capabilities affect the resource base of the firm indirectly, and have a more pronounced influence on strategic or structural change (Nummela 2004 ;Ambrosini et al. 2009).

#### **2.2.5 The manager is the inner key to the box**

The concept and characteristics of the knowledge management process, the role of the managers, manager’s perception, and which type of dynamic capability to mobilize are intertwined. This paper acknowledges that managerial perceptions for need to change are

important triggers for the mobilization of dynamic capabilities (Ambrosini et al. 2009). Managers' knowledge, skills and experience gathered over time are acknowledged as an important factor of dynamic capabilities. Managers are considered to be the drivers of the change that goes on within the SMEs at par with the international expansion. They are the ones who are responsible and capable of identifying the learning and knowledge generating capacity of the employees which are needed to help the firm to go through the transition (Zollo and Winter 2002 ;Cepeda and Vera 2007 ;Wang and Ahmed 2007). The dynamic capability clearly guides the firm through the small incremental- as well as significant changes such as renewing, refreshing, creating, and modifying operational capabilities with the help of the resource base (Ambrosini et al. 2009). All these alterations are steered by the managers to cater the first and second order changes within the firm. However, knowledge has been stressed particularly among the other dynamic capabilities as it is critical to foster and develop other dynamic capabilities for example leadership, strategic decision making, and skills (Zollo and Winter 2002). The concluding thought is that dynamic capabilities are embedded within the processes, routines, knowledge and people of the firm. The managers utilize the knowledge management process to influence, alter or create new processes and routines that help the firm to change its inner workings during the international expansion; and thus create competitive advantage.

### **2.3 Building the door from the inside out**

The process theory of internationalization provides the basis for the external environment of the firm, as well as the source of information that will lead to change; and the dynamic capability framework describes how the change takes place within the firm in order to adapt to the changing environment during internationalization. What can be seen in Figure 7 is that firms interact with foreign market environments. This is the basis for what has been described in the internationalization literature as the source of new market information (Johanson and Vahlne 1977). This interaction is the starting point for the information flow between the firm and the actors in the market. As the information flow grows, relationships develop between managers within the firm and their counterparts in the foreign market. The managers then act as a buffer for which information is important to the internationalization activity of the firm; and the new information creates a need for change (Johanson and Vahlne 2003 ;Helfat et al. 2007 ;Teece 2007). During this change process, the knowledge gap is identified, new knowledge is created, and a project plan is created to facilitate the spread of the new knowledge. To carry out the plan dynamic capabilities such as leadership, skills, and strategy

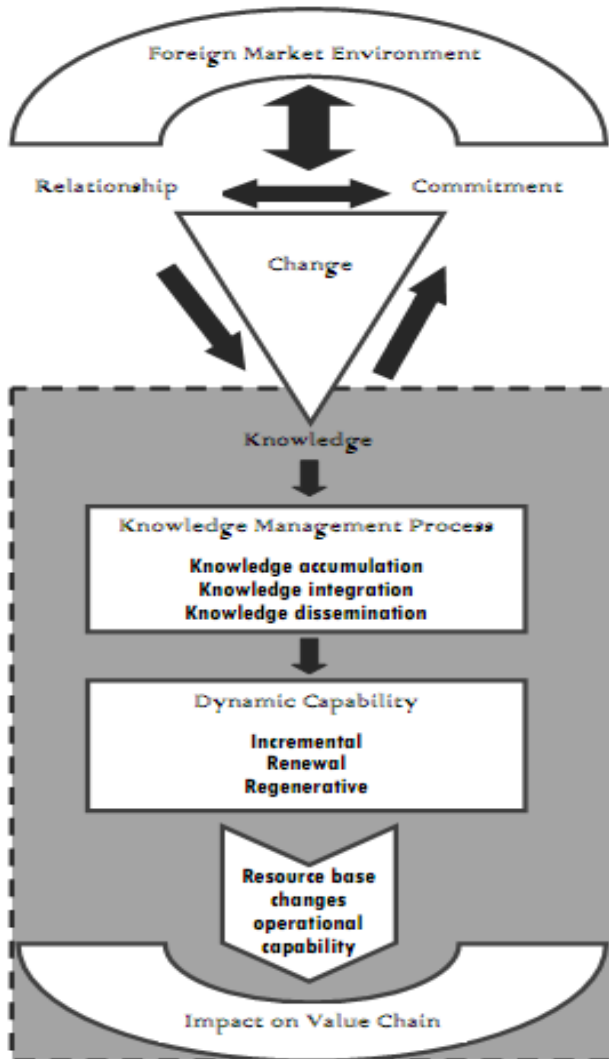


Figure 7: Internal Internationalization Model 1b. Sources: (Grant 1996 ;Eisenhardt and Martin 2000 ;Winter 2003 ;Nummela 2004 ;Cepeda and Vera 2007 ;Johanson and Vahlne 2009) Authors' adaptation

are mobilized which results in a change in the operational capabilities and to some extent, the resource base of the firm. The dynamic capability framework describes how the changes are handled with managers at a pivotal point for information gathering and knowledge management (Zollo and Winter 2002 ;Cepeda and Vera 2007 ;Helfat et al. 2007). The value chain activities in the firm are affected as a result of these changes; which in turn is related to the level of commitment the firm is able to make to the foreign market. Finally, the level of firm commitment to the market is related to the level of commitment managers make in their business relationships (Johanson and Vahlne 2006). Thus the model depicts a cyclical process that is ongoing both within the firm as it learns, and on a firm level as it goes through international expansion.

### Chapter 3: Models and propositions

The conceptual framework has provided a basis from which a conceptual model has emerged, and another has been created. The boundary of the firm has been a persistent departure point for observations of the Process Theory of Internationalization (Johanson and Vahlne 1977) and while the results of firm activities have been shown, the inner turmoil and change that was experienced is seldom evident. Conversely, the Dynamic Capabilities Framework sheds light on the inner workings of business activities as firms reconfigure and adapt to a changing environment (Teece et al. 1997). When these frameworks are combined, there is suddenly a new approach to looking at the process of internationalization from an internal perspective. Previously unexplored, the way internal change occurs in the firm can now be looked at as an integral part of the internationalization process of the firm (Figure 8).

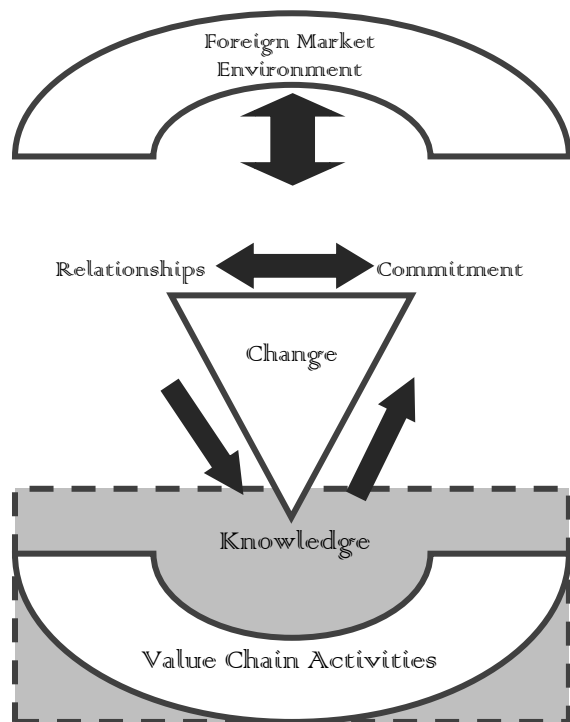


Figure 8: Internal Internationalization Model 1c. Sources: (Nummela 2004 ;Johanson and Vahlne 2009) Authors' adaptation

In order to combine these concepts and create a flow between the changes within the firm and internationalization, common themes in the text were identified: relationships, knowledge and commitment. By using the model developed in the conceptual framework (Figure 8), there is now a starting point to guide the path of describing internal change during internationalization. The natural starting point based on the updated model from Johanson and Vahlne (2009) is to begin with relationships. It has been emphasized that information gained through the relationships managers develop in the business networks is what drives international expansion decisions.

This information must be converted into knowledge for the firm to be able to act on it. Thus, within the 'black box' is where the knowledge generation process takes place, as well as how a firm is able to use it to change. *This is the essence of the internal change.* The knowledge management process is driven by the innovative, absorptive and adaptive capacity of the firm to learn. These three characteristics are required for each of the knowledge development stages of the process: accumulation, integration and dissemination (c.f. Grant 1996 ;Zollo and Winter 2002 ;Cepeda

and Vera 2007 ;Ambrosini et al. 2009). The culmination of the knowledge management process is what mobilizes dynamic capability and enables a firm to change. Within the scope of dynamic capability change, there are the possibilities for both first and second order change. However, it should be noted that the first and second order change are not dependent on each other; only the knowledge management process (c.f.Nummela 2004 ;Wang and Ahmed 2007 ;Ambrosini et al. 2009). Thus the entire knowledge management and dynamic capability process is contained within the context of the firm and driven by the managers. The change that is the outcome of these processes will display the level of firm commitment to the new market (Johanson and Vahlne 2003,2006,2009). Figure 8 demonstrates how this process follows a cyclical pattern where the depth of the firm's commitment to the market is interrelated with commitment to relationships; which in turn is the source for new information that the firm can act upon through knowledge management and dynamic capability. The manager is not specifically noted in the model because it is expected that her role will be consistent and important throughout the relationship, knowledge and commitment cycle.

Some basic assumptions that have been made in the construction of this model have been done so in order to allow for application of the model to different value chain functions during different stages of internationalization. This study focuses on SMEs as they are interesting due to the fact that their limited access to resources requires their actions and solutions to be more innovative (c.f.Penrose 1995). In addition, it was realized that the effort and activity a firm puts into analyzing the benefits of international expansion can be vast, thus the temporal starting point for this model is after the initial expansion decision has been taken (c.f.Wiedersheim-Paul et al. 1978 ;Dichtl et al. 1990). Although the external environment of a firm is certainly important (Porter 1985), it is presumed that all firms will experience this similarly; thus it is the internal transition that is focused on because of the difference in firm resource bases and capabilities (Johanson and Vahlne 1977 ;Penrose 1995 ;Teece et al. 1997). On an internal level, there are tangible, intangible and human resources that make up the resource base of a firm. While they are both necessary for the normal functioning of a firm, the human resources are highlighted in this study, as they encompass the skills, knowledge and experience that are required to operate the tangible and intangible resources. Finally, while all firms have operational capabilities, if they do not have dynamic capability they will not be able to change and remain competitive during internationalization. Thus within the limits of the assumptions, the propositions that support the construction of

detailed conceptual models are introduced, and are organized within the themes of relationships, knowledge, and commitment. As mentioned in the introduction of Figure 8 the relationship is the starting point for the development of propositions since the internationalizing SME will likely need a flow of new information to support their expansion efforts.

### **3.1 Relationships -The manager meet and greet**

In order to expand business activities abroad, a firm must not only be connected to actors in the new market, but also have the openness to receive market signals (Bilkey and Tesar 1977 ;Johanson and Vahlne 1977 ;Wiedersheim-Paul et al. 1978 ;Welch and Luostarinen 1988). Once a decision in the internationalization process is taken, it falls on the managers to determine how to carry it out, and thus the task of preparation arises. One of the first things that managers may come up against is the degree of outsidership they experience between themselves and the business network in the market of expansion (c.f.Johanson and Vahlne 2009). This factor may have been considered in the decision of expansion to the market, but the firm will likely have some gaps to close. To do this, managers need to have both an internal awareness of what is known, but also what is not known, and thus use that as a basis for information searching. The PTI posits that the liability of outsidership is overcome by information that is gained through the business network from the new market and how a firm can incorporate it into their existing processes and routines (c.f.Johanson and Vahlne 1977,2003,2009). More specifically, managers seek, share and receive information about the foreign market through the contacts they have in their business networks operating in that market (Ried 1981 ;Johanson and Vahlne 2003). Given this context it is likely that managers will seek to find information from close or reliable contacts in their existing business networks in order to learn more about the new market. As well, managers will devote more attention to the relationships in their business network that they expect will yield information that will be critical to the internationalization effort (c.f.Johanson and Vahlne 2009).

During the course of everyday business activities information is shared, sent and received through the business networks. Managers at all hierarchical levels in a firm are tapped in to these networks and are part of the chain of information (c.f.Ellis and Pecotich 2001 ;Johanson and Vahlne 2003). In the course of this constant flow of information, there is an opportunity for managers to receive key pieces of information through their business relationships that can assist them in approaching the challenge of overcoming outsidership (Johanson and Vahlne 2009). However, not all participants are tuned into the information in the same

manner or with the same capacity (Bilkey and Tesar 1977). Indeed, it has been observed that some managers have a greater ability to participate in and learn from the relationships in their business networks. Although there are certain personal traits that help managers form meaningful relationships with their business contacts, other characteristics can be acquired that enable managers to be more aware of the information they are being exposed to, and therefore recognize as important. These characteristics are developed based on the length of time a manager has had to build experience, the type of education programs they have participated in, the amount of international experience they have, as well as the depth of their knowledge about the reliability and trustworthiness of their business contacts (c.f. Bilkey and Tesar 1977 ; Ried 1981 ; Dichtl et al. 1990 ; Johanson and Vahlne 2003 ; Wu, Sinkovics, Cavusgil and Roath 2007). This precondition of the ability of managers to seek and seize the new market information is critical to discovering the context of what needs to change. However, if the manager is unable to interpret this information, an opportunity is missed to introduce new information to the firm which might aid in international expansion.

*Proposition 1: The depth to which managers develop relationships in their business networks is related to their ability to identify and interpret information relevant to internationalization.*

## **3.2 Knowledge - How they know, what they know, makes them grow**

### **3.2.1 Knowledge accumulation**

Managers are considered the pivotal point in the knowledge management process (Zollo and Winter 2002 ; Helfat et al. 2007). It is the managers' skill set, expertise and experience that instigates the identification of new information coming through business relationships and willingness to act on it (Ambrosini et al. 2009). Once the decision to react to the information received is taken it is believed that it is the managers who evaluate the existing knowledge base that is rooted within the processes, routines, and employees of the firm that has been gathered over time (c.f. Helfat et al. 2007 ; Teece 2007 ; Ambrosini and Bowman 2009). This study indicates that after the assessment, the manager will have the opportunity to identify what the required degree of change will be, and how it will be executed. A single piece of information may be identified that requires significant and revolutionary change in the overall structure of a value chain activity, or even the firm. However, it is assumed to be more likely that many small pieces of information are identified and introduced in a continuous fashion.

It is at this point of introduction that the knowledge management process begins *within* the firm. In this process the new information has been identified as something different to what is



part of the daily processes and routines, and therefore will cause some change to the current activities. The addition of small changes to daily tasks causes the firm to learn more about the foreign market, and to make incremental changes to the way they do things, 'learning by doing' (c.f.Zollo and Winter 2002). In this rather passive process, though the changes may not be large, they still require the innovative capacity of the employees to come up with an efficient way of adding them to their existing business activities (c.f.Wang and Ahmed 2007). The new accumulated knowledge is augmented by interchange of information in formal and informal dialogue within and across different value chains; and will have a cascading effect as it becomes evident that the existing processes and routines are not sufficient to handle the change. This stimulates idea generation, information sharing, and learning from previous experiences and existing ways of doing things on a collective scale (c.f.Teece 2000 ;Zollo and Winter 2002). This accumulation procedure helps the firm to get an overall idea about their existing knowledge, resources and capabilities and also helps them to identify their inadequacies which leads to new collective knowledge creation (c.f.Zollo and Winter 2002 ;Cepeda and Vera 2007). For example, information received in the sales department through their distributor about changing demand requirements for their product in the new market will be first evaluated by the sales manager. If the manager perceives that the information is worth acting on it will be incorporated within the day-to-day sales activities; and the manager steers the sales employees to come up with new ideas to increase daily sales. The collective knowledge is then shared, discussed and challenged across relative value chain activities such as marketing, which leads to knowledge creation about the new sales promotions to be offered, and the marketing campaign required to re-launch the product.

*Proposition 2: Knowledge accumulation is related to the possession of innovative capacity by the firm.*

### **3.2.2 Knowledge integration**

Knowledge generated will not be of any use if the employees do not have the capacity to grasp and use the newly created knowledge (c.f.Teece 2000 ;Wang and Ahmed 2007). In order to incorporate the changes that are made, a realization that the changes are needed is required; as well as acceptance that they are going to happen. The absorption of this need for change is positively affected by how dynamic the managers are in communicating to and motivating the employees. Higher absorptive capacity leads to the stronger ability to learn from different parties, integrate external information and transform it into firm-embedded knowledge (c.f.Wang and Ahmed 2007). However, only realization that change is needed is

not sufficient; the willingness and flexibility of the firm to adapt to change are also very important factors. Moreover, the adaptive capacity also refers to how flexible the processes and routines are to change in line with the external expansion. Some common mechanisms managers employ to increase both absorptive and adaptive capacity are use of focus groups, training, and incentives (c.f. Grant 1996). Thus when a firm is able to integrate the knowledge that has been learned in the accumulation process into their existing processes and routines to make small changes, they have incremental dynamic capability (c.f. Ambrosini et al. 2009). Therefore it is reasonable to assume that integrating the created knowledge about how to sell more products through a new sales promotion is incremental dynamic capability. Thus the conclusion that can be reached is that in order for firms to possess incremental dynamic capability, there must be knowledge accumulation that the firm can absorb, adapt to, and integrate into their processes and routines in order to make small changes.

*Proposition 3a: The firm must possess absorptive capacity in order to integrate accumulated knowledge.*

*Proposition 3b: The firm must possess adaptive capacity in order to integrate accumulated knowledge*

*Proposition 3c: Integration of accumulated knowledge is related to both the absorptive and adaptive capacity of the firm.*

*Proposition 4: The firm must possess the absorptive and adaptive capacity to integrate the accumulated knowledge in order to have incremental dynamic capability.*

### **3.2.3 Knowledge dissemination**

It is important to capture the knowledge created in a form that can be used by other users. The type of knowledge that is created determines how it is stored and shared with others. Explicit knowledge that is evident in changes to known activities can be communicated on a simple level such as a group email; or captured in a process manual for information that requires greater explanation (c.f. Grant 1996 ;Zollo and Winter 2002 ;Cepeda and Vera 2007). In this process there are two important factors: first the knowledge must be accurately documented; as well, the knowledge needs to be stored in a way that it can be retrieved and understood by other users. Tacit knowledge on the other hand, is much more difficult to convey because it is stored within people. This type of knowledge can be spread through training and repetition. Tacit knowledge is also important to transfer because some learned

experiences are more difficult to transfer through documentation (c.f. Grant 1996 ;Zollo and Winter 2002) However, no matter how well either type of knowledge is collected, stored or delivered, the absorptive and adaptive capacity of the firm will determine how much can be learned. In turn, this will determine how well the firm is able to make the new change with what it has learned. Throughout this learning and adaptation process, new knowledge is constantly being accumulated, and the innovative capacity of the firm is being harnessed (c.f. Grant 1996 ;Teece 2000). Therefore this can be observed in situations where firms are required to make the production process more efficient by changing quantity of input of raw material, or changing the design of a product. The ability of the firm to accumulate, integrate and disseminate knowledge is required to make changes that upgrade and refresh the processes and routines of the firm. When a firm can do this it can be said to have renewal dynamic capability (c.f. Grant 1996 ;Zollo and Winter 2002 ;Ambrosini et al. 2009).

*Proposition 5a: Knowledge dissemination is related to how well the codified and transferred knowledge is absorbed.*

*Proposition 5b: Knowledge dissemination is related to how well the codified and transferred knowledge is adapted to.*

*Proposition 5c: Knowledge accumulation, integration and dissemination is required for a firm to have renewal dynamic capability*

#### **3.2.4 Knowledge management drives dynamic capability**

The innovative, absorptive and adaptive capacity of the employees influences how well they embrace and utilize new knowledge. The more knowledge they can accommodate and use the greater the impact they can make on the processes, routines, resources and structure of the firm. When knowledge is created and integrated the firm makes small and slow changes to the existing processes and routines; thereby indicating that the firm possesses incremental dynamic capability. On the other hand, when the firm is able to come up with their own solutions through refreshing or enhancing the processes and routines, the firm is said to have renewal dynamic capability (c.f. Zollo and Winter 2002 ;Cepeda and Vera 2007 ;Wang and Ahmed 2007 ;Ambrosini et al. 2009). Both incremental and renewal dynamic capabilities require innovative, absorptive and adaptive capacity and are able to handle first order changes (c.f. Nummela 2004 ;Wang and Ahmed 2007 ;Ambrosini et al. 2009). However, when the knowledge created is able to drive revolutionary change; the firm is thought to have regenerative dynamic capability (c.f. Ambrosini et al. 2009). Regenerative dynamic capability

is required to carry out second order change which can involve structural or strategic change that is significantly different from the existing organizational structure and strategy (c.f. Nummela 2004 ; Wang and Ahmed 2007 ; Ambrosini et al. 2009). Regenerative dynamic capability requires not only innovative, absorptive and adaptive capacity; but also all three components of the knowledge management process: accumulation, integration and dissemination. This type of major change is especially fueled by innovative capacity and has the potential to significantly distinguish a firm from its competitors (c.f. Grant 1996 ; Wang and Ahmed 2007 ; Ambrosini et al. 2009). It could involve the creation of a new international department; the decision to outsource a particular value chain activity; establishment of a physical presence in a foreign market; or even a new organizational leader (c.f. Ambrosini et al. 2009). It should be noted here that although the knowledge generated in the accumulation, integration and dissemination process are critical to executing major change; first order change is not a necessary precursor. Thus there is the possibility for extreme knowledge generation that can immediately incorporate regenerative dynamic capability.

*Proposition 6a: Knowledge created through the knowledge management process drives the order of change and determines whether incremental, renewal, or regenerative dynamic capability will be mobilized.*

*Proposition 6b: The firm has regenerative dynamic capability when the knowledge generated in the knowledge management process is big enough to make a revolutionary change.*

*Proposition 7: The knowledge management process is related to the dynamic capability of the firm; and both are required for a firm to internationalize.*

### **3.3 Commitment - Till death do us part, or...**

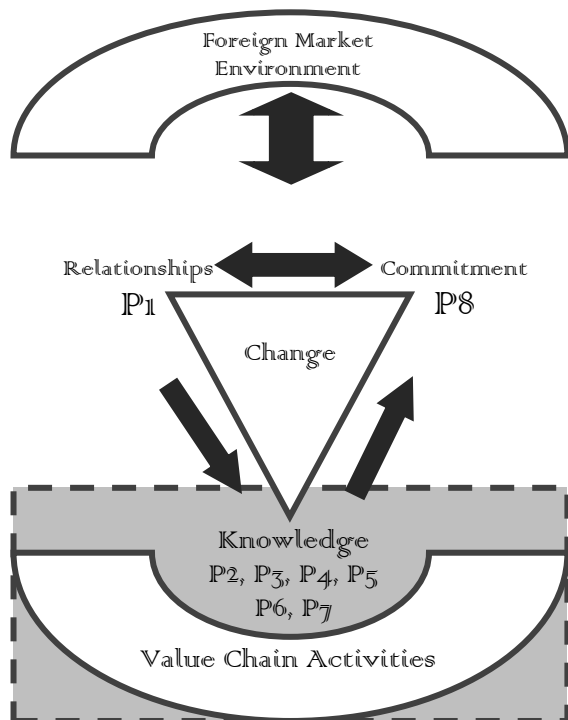
When an SME is going through the change of internationalization the learning and growth process creates a demand that pulls the attention of managers between continuation of domestic activity, and that of international expansion. This shift arises in part due to the experiential knowledge that is gained by learning about doing business with partners in the new market (c.f. Johanson and Vahlne 2003,2009). As this shift in resource allocation occurs, managers are faced with a paradox: although they are learning about the new market and have developed experience in working with it, have they learned enough and how much more do they need to learn? Moreover, is the manager receiving the correct information, and does the firm have the dynamic capability to respond? This uncertainty represents the continuous process of overcoming outsidership, and also forces the manager to evaluate how much

resource they can continue to commit to the new market based on their perception of what is known (c.f.Eriksson, Johanson, Majkgard and Sharma 1997 ;Eisenhardt and Martin 2000 ;Johanson and Vahlne 2006 ;Helfat et al. 2007 ;Johanson and Vahlne 2009). Although the managers are in a pivotal point between the execution of activities within their function in the firm, and the amount of focus that is directed to the new market; they also need to devote energy towards their business relationships in that market (Eriksson et al. 1997 ;Johanson and Vahlne 2003,2006). Indeed, since it is through the relationships that a manager gains triggers and new information on other markets, this is quite important. On the other hand, relationships can be costly to develop and managers must determine if the development of certain relationships are necessary to the strategy of the firm (Ried 1981). Often there is a dyadic correspondence between the commitment a firm has to a foreign market, and the depth of the relationships managers have in the business network in that market (c.f.Johanson and Vahlne 2003).

The quality and value of the relationships the manager develops can give them greater access to hints of market opportunities, and the dynamic capability of the firm to respond will affect the level of business activity that is taken on. Thus it can be assumed that in the position the manager holds as both a gatherer of information and an ambassador for the firm that the relationships and commitment of the manager are highly interdependent. The valuable and reliable information a manager learns through the business network is only as useful, as the dynamic capability of the firm to change to it (c.f.Cepeda and Vera 2007 ;Helfat et al. 2007 ;Teece 2007 ;Casillas et al. 2009 ;Johanson and Vahlne 2009). Moreover, the ability of the firm to learn and change is related to how much it can commit to the new market. If the incoming information is valuable, but the firm has a poor knowledge management process and thus poor dynamic capability, they will not be able to change; and the firm will not be able to increase commitment. As well, firm knowledge management processes that facilitate dynamic capability will be of no use if the new information is incorrect. In that case, change will occur but as it has been made on the wrong knowledge, the firm will face difficulty in increasing commitment. Finally, if the information is valuable, the firm has an innovative knowledge management process and thereby dynamic capability, the change the firm can make will result in an increased commitment to the new market and thus promote internationalization (c.f.Penrose 1995 ;Grant 1996 ;Eriksson et al. 1997 ;Teece et al. 1997 ;Zollo and Winter 2002 ;Johanson and Vahlne 2006 ;Cepeda and Vera 2007 ;Helfat et al.

2007 ;Wang and Ahmed 2007 ;Ambrosini et al. 2009 ;Casillas et al. 2009 ;Johanson and Vahlne 2009).

*Proposition 8: The value of the information learned through relationships in the business network is related to the firm’s ability to create knowledge that mobilizes dynamic capability for international expansion; which is related to the firm’s level of commitment to the new market.*



**Figure 9: Internal Internationalization Model 1d with propositions. Sources: (Nummela 2004 ;Johanson and Vahlne 2009) Authors’ adaptation**

As can be seen in this updated model (Figure 9), the change within the firm takes place on different levels as the firm goes through international expansion. The flow of change is cyclical but it is proposed that a beginning point is where new information enters the firm (P1). The process of internal learning and capacity for change has unfolded as the foundation of this study (P2,P3,P4,P5,P6,P7). The degree to which the firm is able to change will determine how much it can commit to the new market. Finally, relationship and commitment are interrelated and are supported by the knowledge management process (P8).

Through the development of the propositions, a conceptual model has been created that illustrates the comprehensive flow of the internal internationalization process. Due to the inherent complexity of this process, the model has been divided into two parts. The first model that is presented (see Appendix 1a) shows how the process occurs from beginning to end, with relationships being the starting point. However, this model alone is not sufficient to show the complex chain of events that happens during the knowledge management process, and the consequent dynamic capability; thus the second model shown in Appendix 1b displays this process in great detail.

## Chapter 4: Discussion

The conceptual framework that was used to construct the conceptual models has provided a basis for establishing the sought-after link between the internal and external characteristics of change in internationalization. By combining the process and behavioral based concepts of internationalization and internal change, a sequence of change has been unveiled that provides a critical way for understanding the entire internationalization process as seen in Appendix 1a and b. The key elements that have emerged from this study are that the knowledge management process is the crucial foundation for firms to change; and the dynamic capability they possess to change is a key determinant to the ability to internationalize. Based on the conceptual framework, a conceptual model was adapted to illustrate the flow of change as a cycle between the internal and external environment of the firm (Figure 9). In addition, a new conceptual model was created that highlights an irrevocable relationship between dynamic capability and internationalization (Appendix 1a and b). Through the construction of these models, propositions were developed that lead to the following implications.

### 4.1 Revolutionary learning outcome of the study

The primary discovery in this paper is that SMEs must possess dynamic capability to internationalize. At the outset of the study, it was the intent to use the dynamic capability framework to discuss the process of internal change in an internationalizing firm. What became increasingly clear was the dynamic capability framework wasn't sufficient to explain why firms make incremental, renewal or regenerative changes. This is because the knowledge management process is the foundation for a firm's dynamic capability. This paper suggests that within the knowledge management process, innovative capacity is necessary throughout the process, but also the primary driver for knowledge accumulation. Without the ability to identify ways to change, there is no opportunity for knowledge accumulation. Moreover, the managers need to be able to detect which accumulated knowledge is pertinent to changing the existing processes and routines. This can involve a trial and error process through which the manager learns which information is of actual import. The integration of the accumulated knowledge into the daily processes and routines depends on the absorptive and adaptive capacity of the firm; and if the change can be made, the firm is said to have incremental dynamic capability (c.f. Grant 1996 ;Cepeda and Vera 2007 ;Helfat et al. 2007 ;Wang and Ahmed 2007 ;Ambrosini et al. 2009). These incremental changes may be all a firm is capable

of because they cannot develop their knowledge base enough to grow more. The determinants of this are seen to be not only the human generators of knowledge, but the inherent flexibility of the processes and routines to be changed. Therefore when a firm can use their accumulated and integrated knowledge enough to change and improve their existing processes and routines; they must also be able to document what is done and be able to reproduce the change. This includes all the components of the knowledge management process, and indicates that the firm has renewal dynamic capability. This is distinguished from regenerative dynamic capability due to the simple fact that some firms will have a better knowledge management process than others. Thus some firms will be able to enact major structural, strategic and organizational change whereas others will not, even though they have the same components in their knowledge management process (c.f. Grant 1996 ; Teece 2000 ; Cepeda and Vera 2007 ; Helfat et al. 2007 ; Ambrosini et al. 2009). This implies a relationship that strongly deserves further development and empirical testing as it can lead to deeper understanding of how some SMEs perform better than others in international expansion activities.

#### **4.2 How they add up: manager's perception, right information, knowledge, dynamic capability**

A second implication, derived from the conceptual development of conceptual models 1 and 2, is related to the comprehensive process a firm experiences. As has been discussed in several viewpoints from internationalization literature, SMEs often go through the process in a relatively predictable sequence (Johanson and Vahlne 1977 ; Welch and Luostarinen 1988 ; Nummela 2004 ; Johanson and Vahlne 2009). Relationships, knowledge and commitment have been identified as the primary components that not only link a firm to a foreign market, but also provide the opportunity for the firm to learn and change internally. Relationships are focused on as a critical pipeline for information exchange between the firm in its home country, and the business network in the host market. It is necessary to take in account though, that the relationships are between individual actors in their respective environments, and that the information they share with each other is only as valuable if the manager is able to identify it as such. As well, if the manager is in the wrong relationships, they may not ever receive valuable information. Thus the ability of the manager to identify and recognize which relationships have the potential to yield valuable information is a necessary precursor to the manager receiving the critical information. Therefore the focus is not only the extent of development of the necessary relationships required to facilitate the exchange of important



information; but also the ability of the manager to be able to identify the important information (c.f.Johanson and Vahlne 2003 ;Johanson and Vahlne 2009).

The information gathering is only the starting point for the internal change process. Managers now face the role of introducing the information to the firm so that it can be converted into knowledge that will drive the internationalization effort from within the firm. Knowledge creation primarily depends on the manager's ability to initiate the generation of new knowledge within that manager's value chain activity. It is assumed in this paper that the firm is already an expert in what their current processes and routines are and will thus only act on information that requires a change. The level of change is identified as the gap between the firm's existing knowledge, and what must be learned to incorporate the new information and thus, the identified gap generates the need for new knowledge creation (c.f.Zollo and Winter 2002 ;Helfat et al. 2007). New knowledge isn't simply created because there is a need to fill the gap; a manager is called upon to harness the innovative capacity of the employees to develop new methods for absorbing and adapting the new information to their processes and routines. This is the primary foundation for the ability of a firm to change; and the amount the firm is able to change is reliant on the knowledge management process (c.f.Zollo and Winter 2002 ;Cepeda and Vera 2007 ;Wang and Ahmed 2007 ;Ambrosini et al. 2009). These changes are assumed to happen in a staggered manner both within and between value chain activities. Furthermore, the incoming information that is being acted on is likely to differ, which could result in conflicting changes between the value chain activities. This relates to not only the speed but the efficiency of the firm to change as some parts of the value chain may possess very talented employees in their knowledge management process; while others might not. However, as the collective knowledge of the firm increases, the greater ability the firm has to change (c.f.Teece 2000 ;Zollo and Winter 2002 ;Cepeda and Vera 2007 ;Helfat et al. 2007 ;Teece 2007 ;Wang and Ahmed 2007 ;Ambrosini et al. 2009).

The degree to which the firm can achieve change is dependent on the knowledge management process; yet the firm may still not be able to internationalize. Although a firm may possess a talented and productive knowledge management process, and thereby dynamic capability; if the information input they receive is incorrect the changes the firm make may not result in increased internationalization (c.f.Teece 2000 ;Johanson and Vahlne 2006 ;Cepeda and Vera 2007 ;Ambrosini et al. 2009 ;Casillas et al. 2009). Therefore it can be stated that the change the firm is able to make clearly shows the commitment a firm is able to make to the new market. A critical point is that the commitment a firm is able to make might

not necessarily reflect the commitment level that is desired. However, in order to overcome shortages in the changes of the firm, the managers are required to strengthen their level of commitment to the relationships in their business networks. By doing so managers can gain additional information that will help the firm increase the commitment to the market (c.f. Johanson and Vahlne 2003 ;Johanson and Vahlne 2009). This comprehensive process implies that the internationalization change of the firm is dependent on the triumvirate of relationships, knowledge and commitment. Furthermore this paper suggests that the internal development of market information into firm-specific knowledge that can enact change resulting in greater international expansion is 'internal internationalization'. Without this concurrent and cyclical process, SMEs will not be able to internationalize.

### **4.3 Practical applicability**

This paper takes the approach that each manager is a cog in the wheel of the overall firm activity of internationalization. Because of this, the manager is in a position to see the ability of the personnel within her department to absorb and adapt new knowledge about the international expansion into their regular processes and routines. This is likely to be different across different departments in a firm, as some of the new knowledge will be utilized to a greater degree in some aspects of the value chain, while in others there will be a reduced effect. This paper recognizes this as an important aspect of the internal change because the manager can play a crucial part in promotion or hindrance of the process based on her perception of how it will affect her department. (c.f. Johanson and Vahlne 1977 ;Lu and Beamish 2001 ;Zollo and Winter 2002 ;Johanson and Vahlne 2009). Thus when taking into account the assertion that managers are going to be involved in business network relationships that will expose them to important internationalization-related information, the background and pre-existing international orientation of the manager becomes relevant. This is because managers who have had exposure to foreign markets, languages, and business customs (Bilkey 1978 ;Wiedersheim-Paul et al. 1978 ;Ried 1981 ;Dichtl et al. 1990 ;Ellis and Pecotich 2001 ;Johanson and Vahlne 2003 ;Wu et al. 2007) will have a higher aptitude for not only seeking important information, but recognizing or discovering it unexpectedly. This also can be part of the explanation of how some firms are able to internationalize very quickly (Rennie 1993 ;Oviatt and McDougall 1994), but also why it takes some firms longer to recognize the right information that is needed to overcome the liability of outsidership to the new market (c.f. Johanson and Vahlne 1977,2009). Nevertheless even if the manager is successful in recognizing information, she must still be able to articulate the worth of it, as

well as determine if the information can be transferred into knowledge that can be acted upon within the firm.

This ability to introduce and act on information is dependent on the innovative, absorptive and adaptive capacity of the firm. Having a manager who can affect the capacity of a firm is critical; as they are responsible for steering the firm to take the right course of action in response to the externalities. When managers can influence capacity, they give the employees the flexibility to experiment, learn by doing, or even push the employees to be innovative and come up with a new solution to handle the changes (c.f. Teece 2000 ;Wang and Ahmed 2007). In this paper the entire procedure of knowledge creation leading up to change is believed to be a sequential phenomenon. The degree of the change in resources, processes and routines highly depends on the knowledge that is being created. The particular combination of managers, knowledge management, processes and routines, and dynamic capability are required for internationalization (c.f. Grant 1996 ;Teece 2000 ;Zollo and Winter 2002 ;Cepeda and Vera 2007 ;Wang and Ahmed 2007 ;Johanson and Vahlne 2009).

#### **4.4 Limitations**

This study is by no means exhaustive, but rather is intended to be used as a foundation for further research. There are some limitations that can be recognized in the conceptual models and propositions. Overall there is an assumption of rational behavior on the part of the managers as well as their employees; however it is known that people tend to behave irrationally despite the intent or internal belief to the contrary. Moreover, the models follow the path of the Uppsala model and therefore suggest a path dependency or sequence of events that may not happen or be required in all instances. As well, although the externalities of a firm are considered to be automatic, other external factors such as availability of funding could alter the way a firm behaves. While this study takes the approach that managers are the focus for driving the change, it may not be applicable in all SMEs, due to firm hierarchy or experience factors. Finally, though technology is a relevant and unavoidable component in today's business operation, it has not been an area of focus for this study; assuming SME's lack the financial strength to make a drastic change to their technological infrastructure.

#### **4.5 Further research direction**

Internationalization has become a step that many SMEs take as they seek to grow and compete. Although it is known that SMEs inevitably struggle with internationalization more than large and established firms, there has been a need for greater understanding of the cause.

This study has been conducted to lay the groundwork for continuing research. The conceptual models that have been developed and created through application of the conceptual framework can be used as a foundation for empirical study. The rigorous analysis and detailed sequence provided in the models and propositions can be further developed in order to enhance and extend the concept of internal internationalization.

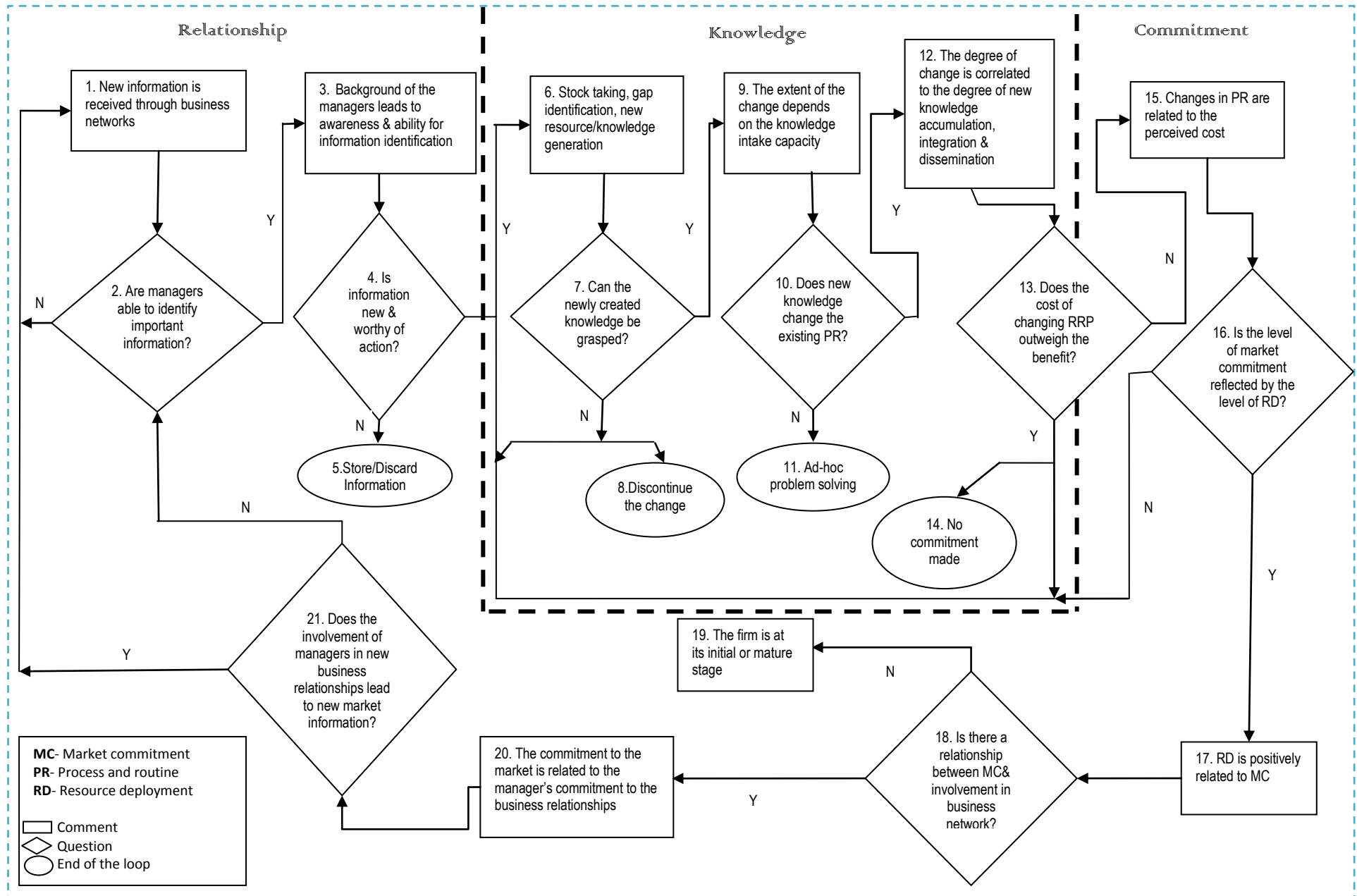
#### **4.6 Conclusion**

This study depicts that manager's perception, information gathering, knowledge generation and dynamic capability are not stand alone concepts. These are highly interdependent. If managers can introduce new information, but the firm cannot generate it into knowledge, the firm has no dynamic capability and cannot change. As well, if the firm can use the information to modify the processes and routines through their resources the firm has dynamic capability; but if the information is incorrect, the change will not support internationalization. Thus it can be implied that SMEs require managers who can introduce valuable information; employees capable of generating and managing knowledge; and the ability and adaptability to change processes and routines in order to steer the firm through internationalization.

#### **Acknowledgements**

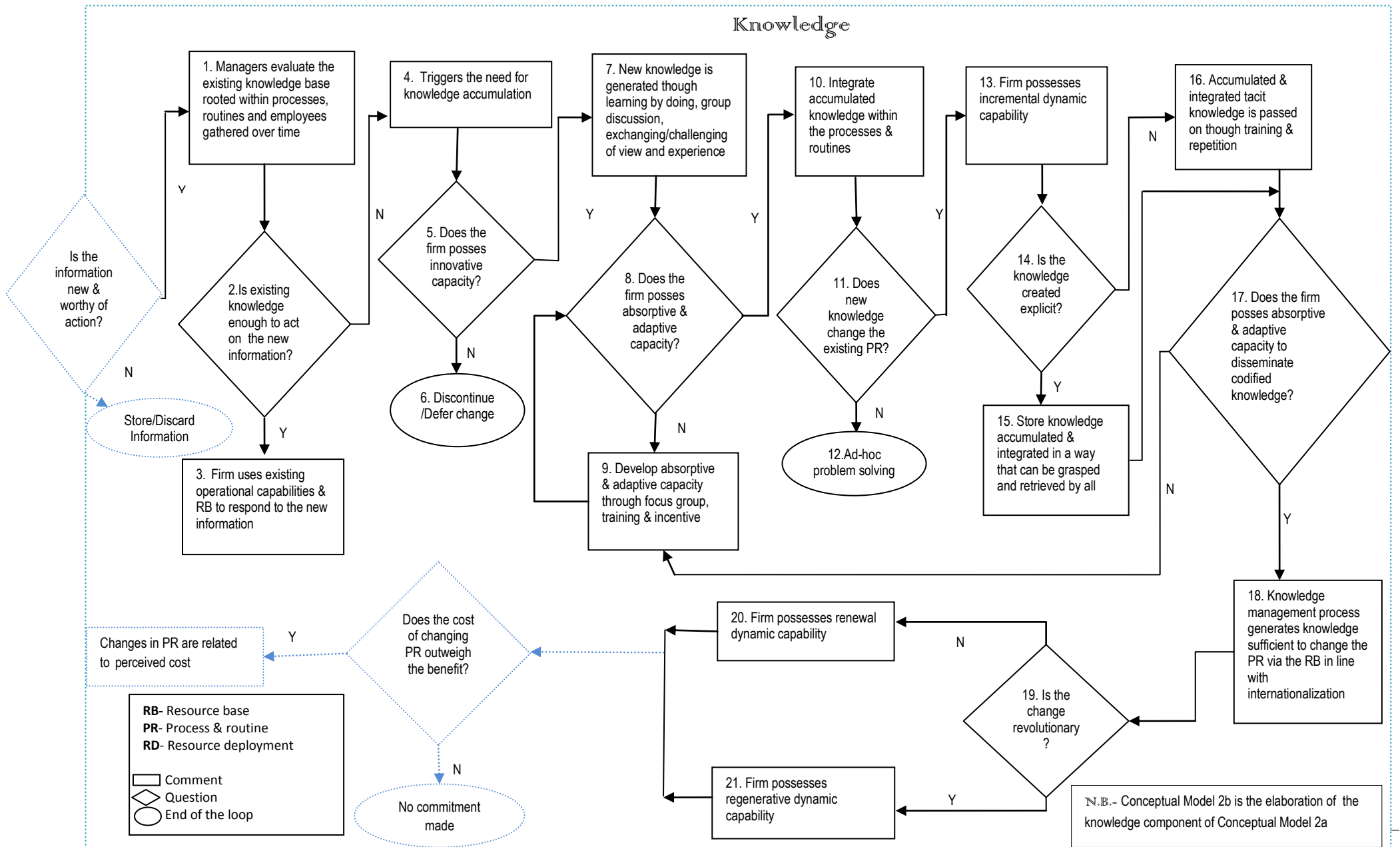
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# Appendix 1a



Appendix 1a: Conceptual Model 2a, Internal Internationalization Authors' construction

# Appendix 1b



Appendix 1b: Conceptual Model 2b, Internal Internationalization. Authors' construction

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<sup>i</sup> 'Internalization' and 'International expansion' are used interchangeably throughout the paper.

<sup>ii</sup> The authors wish to clarify that the focus of the paper is on SMEs, but the words 'firm' and 'SME' are used interchangeably throughout the paper.

<sup>iii</sup> The conceptual model 1 is based on Nummela's 2004 model of change where 'Personnel' is indicated. In this study, 'Personnel' and 'employees' are used interchangeably.