NDIDI ONWUZULIGBO

ABSORPTIVE CAPACITY AND INTERNATIONALISATION: A CASE STUDY OF FINNISH COMPANIES

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The purpose of this study is to empirically address the relationship between absorptive capacity and internationalization. Previous researchers have identified issues relating to firm’s lack of knowledge when handling international business. Absorptive capacity is the ability of firm to acquire, assimilate, transform and exploit external knowledge needed to solve such problems in firm’s internationalization.

This research suggests that if a firm is able to measure its absorptive capacity, the result may improve the firm’s international business activities and performance. Reasons for absorptive capacity measurement suggested by this research is to enable firm to increase their level of internationalization by drawing from their international experiences, and to also have a better understanding of their business environment to gain new opportunities, achieve sustainable competitive advantage and to increase their survival rate in the fast growing global market.

This study is in the form of a quantitative research focusing on Finnish companies conducting international operations. A structured questionnaire was used as the data collection process by using the key informant technique with a total of 98 respondent firms in Finland as at 2013. SPSS software was used to run the statistical analysis of the study to determine the correlations between the studied variables. Consistent with prior research, the results of the study support the notion that there is a significant relationship between absorptive capacity and firm internationalization.

The study provides several implications to companies and their managers concerning firm international operations. The given results of the study illustrate that there is a need for managerial action that builds and supports organizational absorptive capacity to enable increased firm internationalization.

Keywords
Absorptive Capacity, Internationalization

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1 INTRODUCTION

Knowledge and learning have been found to have a fundamental impact on internationalizing firms as they must assimilate and exploit newly acquired knowledge to compete and grow in markets of which they have little to no prior knowledge (Autio et al, 2000). In management research, it has been said that innovation activities can strongly depend on how effective the firm can acquire, develop, and transfer knowledge and resources both within the firm and beyond its immediate environment (De Luca and Atuahene-Gima, 2007). The high level of technological change and the ability to access and leverage different knowledge-based assets is becoming essential to foster collaboration which leads to internationalization (Teece et al 1997).

Knowledge has been described as an important building block of innovation (Barney 1991 and Grant 1997). It has also been known as a means of connecting people to achieve goals (Sastrowardoyo 2009), which occurs as a result of new knowledge applied to commercial ends (Cohen & Levinthal 1992). Innovative businesses can grow their capacity to function in the international market through external knowledge sources such as collaborations, R&D, acquisitions, joint ventures, licensing, contracts and inter-firm relationships (Zahra& George 2002, Fosfuri &Tribo 2008). Putting resources into R & D deals with innovation potential, the capacity to harness environmental knowledge is an important component in acquiring and utilizing the capacity to innovate and to create a possible competitive advantage (Chesbrough 2003, Cohen and Levinthal, 1990).

The importance of absorptive capacity has been noted across the fields of international business (Kedia and Bhagat, 1988), technology management (Schilling, 1998), strategic management (Lane and Lubatkin, 1998), and organizational economics (Glass and Saggi, 1998). The foundation of absorptive capacity analysis is based on knowledge sourcing through prior experiences of management, interactions with the environment, experimental and academic knowledge, identifying and analyzing new information, and other sources of knowledge acquisition (Cohen and Levinthal 1990). Other bases include power relationships which can determine the allocations for innovation investments, social integration mechanisms which influence the exchange
of knowledge and experiences, and regimes of appropriability to maintain knowledge of others (Torodova & Durisin 2007, Zahra & George 2002).

Absorptive Capacity as been defined as firm's ability to value, assimilate, and apply new knowledge (Cohen and Levinthal 1990). Absorptive Capacity can be obtained through interactions between individuals, groups, organizations or even between countries (Torodova & Durisin, 2007, Zahra & George 2002, Cohen & Levinthal, 1990). Firms take such interactions as importance as it contributes to its innovativeness through the new external knowledge and procedures acquired (Nonaka & Tacheuchi, 1995). Interactions between internal and external actors of a firm can provide an accumulation of knowledge and experiences that can aid in internationalization. Firms that does not invest in its absorptive capacity may not benefit from the emerging opportunities in the competitive environment (Luciano et al. 2014).

As suggested by knowledge-based theory of the firm (Nonaka, 1994, Grant 1996, Kogut & Zander 1996) new and existing resources need to be leveraged in other for firms to achieve and retain competitive advantage in today’s fast changing and unstable environment. These resources are even more necessary when dealing across borders. The theory also claims that firm’s competitiveness and survival relies on how well they gain new knowledge, enabling the flow of external knowledge, and the capability of distributing knowledge throughout the firm (Evans & Bosua 2014).

Firms existing knowledge and shared knowledge from external sources influences the capacity for acquiring and disseminating knowledge throughout the firm (Cohen and Levinthal 1990). It is crucial for firms to be innovative and explore its dynamic capability to integrate, build and reshape internal and external competencies to address rapid changes (Volberda et al., 2010; Murray et al., 2011) in both local and international business environment. Therefore the higher the firm’s level of Absorptive capacity can be able to extract greater benefits from external knowledge that will outperform competition in their innovation activity (Fosfuri & Tribo 2008). The capacity to absorb knowledge is crucial for innovation (Murray et al. 2011).
Absorptive Capacity can also be action taken using available knowledge (Cohen & Levinthal 1990). Changes in production processes and value have caused firms to compete through innovation. Firms are influenced to operate and adapt the knowledge available in their environment in other to gain competitive advantage (Luciano et al. 2014). Taking to action knowledge generated in the international business environment can become necessary for competition and survival of the firm. Absorptive Capacity is a dynamic capability which influences the nature and sustainability of competitive advantage of an organization (Zahra & George, 2002).

Various research studies on international business have viewed firm’s internationalization as a process in which such firms gradually increase their international involvement (Johanson and Vahlne, 1977, Welch and Luostarinen, 1988). In management, the behavioral school of thought views firm’s internationalization as an evolutionary process. The firm can increase their international involvement during this process, which alongside leads to increase in knowledge and market commitment (Aharoni, 1966, Johanson and Wiedersheim-Paul 1975, Johanson and Vahlne 1977).

The gradual involvement character influences the pattern and pace of internationalization (Johanson and Vahlne 1977). Welch and Luostarinen (1988) included the changed perspectives and changed positions in the internationalization process in viewing internationalization as a major dimension of strategy process. The strategy process determines ongoing development and changes in terms of scope, business idea, action orientation, nature of managerial work, and dominating values.

Lack of foreign market knowledge can be considered as lack of knowledge on networks of business relationships that are connected to each other (Johanson and Vahlne, 1990). Through networks, firms obtain a general knowledge of its business environment such as marketing, technological, cultural and competitive information that increases the success rate of a firm. This can be illustrated by the fact that conducting international business relies on knowledge acquisition which can be generated from accumulated experiences of specific relationships (Barkema and Vermeulen, 1998; Delios and Beamish, 1999).
1.1 The objective of the study and research question

Previous researchers have identified issues relating to firm’s lack of knowledge when handling international business. These issues are knowledge transferability (Kogut and Zander 1993), industry and environmental conditions (North 1990), organizational structure of the firms engaging in international business exchange (Bartlett & Ghoshal 1989), and international business relationships (Blankenburt Holm, Eriksson & Johanson, 1996). Absorptive capacity as been earlier discussed as the ability of firm to acquire, assimilate, transform and exploit external knowledge needed to solve such problems in firm’s internationalization.

This research suggests that if a firm is able to measure its absorptive capacity, the result may improve the firm’s international business activities and performance. Reasons for absorptive capacity measurement suggested by this research is to enable firm to increase their level of internationalization by drawing from their international experiences, and to also have a better understanding of their international business environment to gain new opportunities, achieve sustainable competitive advantage and to increase their survival rate in the fast growing global market. The research intends to use the two most-cited absorptive capacity definitions in the international business literature: Cohen and Levinthal (1990) and Zahra and George (2002). Both studies developed the capabilities of a firm and components of absorptive capacity which are important for better understanding of the concept. For the purpose of the research, this components were translated into operational measures of absorptive capacity.

The main objective of this study is to deeply discover how the different Absorptive capacity activities are related to firm’s internationalization. The research considers if such activities can influence the process and sustain firm’s internationalization.

Thus; the main research questions that will help to achieve this objective is:

- What is the relationship between Absorptive capacity and firm’s Internationalization?
Absorptive capacity has been broken down into two subgroups which is potential and realized absorptive capacity (Zahra and George 2002), this shall form the variables for the absorptive capacity construct. This will be used because it takes into consideration all the four major capabilities from its definition which include acquisition, assimilation, transformation and exploitation.

According to Fischer and Reuber (2008) Firm Internationalization is influenced by a series of factors these includes; factors originating from the firm’s business environment, these are the industry, the size of the domestic market and the level of competition. Another factor are those related to the characteristics of the firm and its innovativeness capacity these are the legal status of the firm, its size and origin, its innovation activities, use of external knowledge, establishment of collaboration with external partners, and barriers to innovation. Finally, there are factors related to the management of the firm these factors are related to international experience and orientation, perceived barriers and opportunities, and commitment to internationalization. Some of these factors can impact positively on the internationalization process while others can act as barriers to foreign market entry (Doloreux and Laperrée 2014).

However, these paper shall focus on the business environment, the level of internationalization (international experience) of the firm for the internationalization variable, and also recognize the issue of collaboration in the discussions.

Therefore, the following sub-questions are formulated to help answer the main question:

- How does potential and realized absorptive capacity relate with firm’s level of internationalization?
- How does potential and realized absorptive capacity relate with firm’s business environment?
1.2 Research methodology and data

The methodology of the research is quantitative in nature. Data were collected through a structured questionnaire from firms in 2013 by using the key informant technique in Finland. The respondents comprise of CEOs which were the majorities, technology managers, R &D managers, board directors and owners as they uphold key position in the company. Statistical tools are used to determine the correlations between the studied variables. Likewise, SPSS software will be used to run the statistical analysis of the study. Absorptive capacity has been divided into two subgroups which are potential and realized absorptive capacity (Zahra & George 2002) to detect their potential differences in terms of their relationship with firm internationalization. The study will subjectively measure two different variables of internationalization consisting of firm internationalization level, and the firm’s business environment through Absorptive capacity.

1.3 Structure of the paper

The paper is organized as follows. Chapter 1 consist of an introduction into the topic (absorptive capacity and internationalization), the objective of the study, research questions and hypothesis. Chapter 2 consist of literature overview of the concepts of absorptive capacity and internationalization based on the prior research. Chapter 3 sheds more light on hypotheses buildup of the research with literature backings. Chapter 4 discusses the research methods and data collection process, Chapter 5 puts together the empirical evidence of the study by providing information about the data and measures used as well as the analysis of results. Finally, Chapter 6 concludes the study by providing a discussion about the results achieved and their implications for the Finnish companies, the chapter also discusses the contributions and limitations of the respective study and provides suggestions and directions for subsequent research.
2 ABSORPTIVE CAPACITY

This chapter helps to fully understand the concept of absorptive capacity in relation to the study. The chapter provides an advanced overview of the specific concept and its underlying dimensions. First, a definition and background of the concept absorptive capacity. Second, the constituents of absorptive capacity are discussed to identify what exactly firm absorptive capacity is based on. Third, the process of absorptive capacity. Fourth, factors affecting the level of organizational absorptive capacity are presented.

2.1 Definition of the concept of absorptive capacity

Absorptive Capacity (AC) is a growing phenomenon in organization management (Cohen & Leventhal 1990; Zahra & George 2002; Flatten, Engelen, Zahra & Brettel 2011). The most recognized definition of Absorptive Capacity is the Cohen and Levinthal (1990) they defined it as the firm's ability to generate, assimilate, and apply new knowledge. Mowery and Oxley (1995) also view it as a set of skills needed to deal with the tacit component of knowledge transferability and the need to modify new knowledge. Kim (1997, 1998) defines it as the capacity to learn and solve problems, and finally, Zahra & George (2002) define AC as a set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge to create a dynamic organizational capability.

However, these study shall focus on the definition Absorptive Capacity (AC) as organizational capabilities for knowledge acquisition, assimilation, transformation, and exploitation. These capabilities build on each other to produce a dynamic capability that affects the firm's ability to create and deploy necessary knowledge to be used in firms operations such as marketing, distribution, and production (Zahra and George 2002). These diverse capabilities give the firm a foundation on which to achieve a competitive advantage that yields superior performance (Barney, 1991), and these performances can increase the level of competitive advantage for such firms to survive in the international market.
2.2 Potential and Realized Absorptive Capacity

The definitions have broken Absorptive Capacity to include four major distinct capabilities; acquisition, assimilation, transformation, and exploitation. Zahra and George 2002 developed the two constitutes of AC from this definition which are Potential and Realized Absorptive capacity. The model below shows that the initial two capabilities which are acquisition and assimilation of knowledge are categorized under Potential AC, while the latter two which involves routines to transform and exploit knowledge are Realized AC. This division was made based on the complementary role of both constitutes that is firm cannot necessarily exploit knowledge without first acquiring them (Zahra and George 2002).

![Diagram of Absorptive Capacity](image)

**Figure 1 The Structure Of Absorptive Capacity (Zahra & George 2002)**

Potential AC makes the firm open to acquiring and assimilating external knowledge (Lane & Lubatkin 1998). Acquisition is firm's capability to identify and acquire externally generated knowledge that is critical to its operations. They are three attributes of knowledge acquisition that can influence Absorptive Capacity these includes intensity, speed, and direction (Zahra and George 2002). The quality of firm’s acquisition can be determined by the intensity and speed of a firm to identify and gather
knowledge. The greater the effort, the more quickly the firm will build requisite capabilities (Kim, 1997).

Knowledge acquisition influences the path a firm obtains its external knowledge. Knowledge acquired was classified into objective knowledge and experiential knowledge (Penrose 1966). Objective knowledge is knowledge that can be taught and learned for example organizing an international conference. While experiential knowledge is knowledge acquired based on experience, for example, employing an expatriate from a potential foreign market, this individual already as a direct experience in the foreign market. Also, the use of suppliers, agents and other intermediaries in the international market are means of increasing the firm’s experiential knowledge.

Assimilation capability allows the firms to analyses, process, interpret, and understand the information obtained from external sources (Kim, 1997). Comprehension promotes knowledge assimilation that allows firms to process and internalize externally generated knowledge (Zahra and George, 2002), however it can be difficult especially when the value of knowledge depends on the existence of complementary resources that may not be available to the firm (Teece, 1981).

Realized AC is a firm ability to transform and exploit newly assimilated knowledge with existing internal knowledge and to integrate this transformed knowledge into the firms’ systems, processes, routines, and operations (Comison 2010). Transformation is firm's capability to develop routines that combine existing knowledge with newly acquired and assimilated knowledge (Zahra and George, 2002). Knowledge acquired and well assimilated can be a new form of information which has been tested with the firm's initial knowledge of a market or product. Knowledge transformation increases a firm capacity to improve information flow, develop effective knowledge sharing activities, increase interactions and communication within the firm, promote awareness of the firm’s skills in innovation and eliminate internal knowledge that is no longer relevant (Kogut & Zander, 1996; Van den Bosch et al. 1999).
This may create new insights for development and aid internationalization, it can also lead to recognition of opportunities such as new resources and market in the international market. New knowledge acquired can be about competitors in an existing or new market, these can allow the firm to view its competitive position in the international sense. Transformation activities can allow firms to decide on international activities (such as market entry, strategies) when knowledge has been transformed into useable information that can develop new competencies for the firm.

Exploitation is an organizational capability that develops routines based on acquired and transformed knowledge to refine, extend, and leverage existing capabilities or to create new ones and incorporating them in its operations (Zahra and George, 2002). The results of exploitation routines could include creation of new products, systems, processes, knowledge, or new organizational forms (Spender, 1996). Knowledge captured from international market, competition, and customers, can be used to create new competencies for an organization. It allows firm to work towards creating to sustainable competitive advantage in other to survive and grow in the international market (Oviatt and McDougall 1994).

Potential AC are important in the various activities of a firm’s operation. Employees need to acquire and assimilate knowledge on a daily basis about the firm in other to operate. A firm also need to acquire and assimilate new knowledge of its domestic and international business environment in other to survive and grow. However, acquiring such knowledge without taking into actions can cause risk and failure for a firm.

Realized AC can help to create routines that transforms knowledge acquired and assimilated into actions. Potential AC is measured at the interface between the firm and its environment, while Realized AC is an indication of realized knowledge absorption measured within the organization (Evans & Bosua 2014). Zahra and George (2002) gave distinctions between Potential and Realized AC firms some firms focus on the initial and are inefficient in transforming them after investing resources in acquiring such knowledge.
On the other hands firms that focus on the later tend to ignore further acquisition and assimilation of new knowledge there devoting there resources on the prior knowledge can affect the performance of the firm in the ever changing environment. They can miss out on new technology or competition. Exploiting new knowledge creates new organization competences, in the case of international market entry, knowledge acquired and assimilated about a market when transformed and exploited can be used to create strategy for survive and grow in the international market. This increase the chances for firm’s internationalization.

The distinction between Potential AC and Realized AC can allow researchers to study why some firms fail because of changes in the external environments, such as technological lockout or industry shocks (Bower & Christensen, 1995), while others thrive under the same conditions (Zahra and George, 2002).

2.3 Absorptive Capacity Process

The knowledge absorption process (KAP) model is used to determine the organizational AC process. According to Evans & Bosua (2014) the process consist of five steps which are: triggers, Antecedents to knowledge flow and knowledge absorption, knowledge flow, knowledge absorption, and outcomes of enhanced knowledge flow and absorption.

Triggers were identified as the first step. Learning take place in the presence of internal or external stimuli that trigger the firm to develop their potential AC by acquiring new knowledge and also allows the make use of its resources to assimilate and spread externally generated knowledge within the firm (Fosfuri & Tribo 2008). Internal triggers can occur due to negative events such as performance failure of the firm or organizational crises that cause radical changes in the business strategy or design (Techatassanasoontorn et al. 2010). External triggers include a change in government policies, regulatory changes, technological paradigm shifts and disruptive innovations (Zahra and George 2002). The need for firms to acquire knowledge is triggered when faced with new, difficult or unfamiliar situations (Evans & Bosua 2014). Firms can
start to build their potential AC through research and development department, networks, intermediaries or other forms of knowledge acquisition scheme.

The next step is the antecedents to knowledge flow and knowledge absorption. Several antecedents are necessary for effective knowledge flow to occur between actors in the firm thereby increasing their potential AC for knowledge absorption and dissemination (Van den Bosch et al 2003). Disseminative capacity refers to the ability to efficiently, effectively and convincingly articulate and communicate knowledge (ability to teach) in a way that other actors can understand it (Mu et al, 2010; Winter 1987).

Absorptive Capacity is progressive and path dependent (Cohen and Levinthal 1990) therefore its primary antecedent is based on prior knowledge, skills and past experiences of the firm (Zahra and George 2002) that is potential AC process can capitalized on their networks for knowledge acquisition. Another antecedence is the adaptation practices within the firm, and a shift in thinking of managers and employees are required in other to adapt to changes in organizational culture, structure or assigned roles (Evans & Bosua 2014). This adaptive practices aid the assimilation process within the firm and between firms, thereby the potential AC of the firm can be fully actualized at this level of the process.

Other factors such as willingness of actors to share knowledge (Easterby Smith et al 2008, Rejeb-Khaclouf, 2010), trust interpersonal relationships (Abrams et al, 2003, Ratten 2005, Noblet et al 2011), management commitment to promote external and internal networking between employees and building personal social networks (Gao & Yang, 2008, Rejeb-Khaclouf, 2010, Noblet et al 2011), organizational structures and informal mechanisms that facilitate the process of knowledge acquisition and assimilation between the company and its partners, as well as within the firm (Rejeb-Khaclouf, 2010), human resource practices such as reward and recognition for knowledge sharing between and within the firms’ (Rejeb-Khaclouf, 2010) influences the potential AC processes of the firm.

The next step is the Knowledge flow. That is the flow of knowledge among employees, teams and departments within the firm (intrafirm) and also between the firm and its
external environment (Inter-organizational) (Evans & Bosua 2014). Knowledge brokers (Research and Development, agents, distributors and subsidiaries), knowledge advocates, and bridges (such as management, team leaders) also play a critical role in building both the potential and realized AC of the firm through acquisition and assimilation of new knowledge, and also the transformation and exploitation of the knowledge internal to the firm (Evans & Bosua 2014).

The next step is Knowledge Absorption. Firms interact with actors through networking external to the firm such as suppliers, clients, competitors, universities, business schools, technological institutes, research and development institutions, consultants and personal contacts in order to build their potential AC (Zahra & George 2002, Volberda et al 2010). Knowledge management programs, scientific conferences, joint teaching activities, collaborations, research projects, trade fairs and external meetings can improve the firm’s realized AC in analyzing and interpreting knowledge and information from other organizations (Szulanski 1996, Zahra & George 2002).

Realized AC are beginning to be actualizes at this level whereby transformation of new external knowledge draws on internal routines to add, eliminate and reinterpret such knowledge by using existing knowledge (Fosfuri & Tribo 2008). Exploitation knowledge is essential for the innovation process of a firm, it shows the firm’s ability to harvest and incorporate knowledge in operations, routines and processes (Fosfuri & Tribo 2008). At the exploitation phase the firm uses and exploits new knowledge to respond to environmental changes and technological shifts in order to remain in the market (Evans & Bosua 2014).

The final step is the outcomes of enhanced knowledge flow and absorption. Outcomes are the results of realized AC. At this stage the transformation and exploitation is completed and knowledge can be converted into new products or services that are useful to the firm. Potential AC is important in creating of knowledge, however it’s realized AC ensures conversion of knowledge which can bring about superior performance (Evans & Bosua 2014). Improved productivity and increased business performance are some of the most important objectives for large business organizations (Tsai 2001).
External partners such as customers or suppliers and can reduce a firm’s potential AC budget by splitting research and development cost and time and also open up unexplored potential AC developments (Knudsen 2007). Absorptive capacity significantly affects firm’s business performance and leads to greater productivity (Cohen and Levinthal 1994, Tsai 2001). Knowledge intensive firms are productive when individual members have the absorptive capacity to learn, innovate and proactive to possible problems and solutions (Deng et al 2008).

This process can be used by firms to build their AC. The two initial steps of the process that is the trigger and the antecedents to knowledge flow and knowledge absorption is where potential AC activities such as knowledge acquisition and the foundation for knowledge assimilation is being produced by the firm. At the third phase that is the knowledge flow level potential AC is fully actualized and the realized AC is beginning to kick off. The fourth level which is the knowledge step, place its emphasis on knowledge transformation, and the final step completes the realized AC process that is the exploitation of knowledge.

2.4 Factors Affecting the Level of Organizational Absorptive Capacity

According to RM Grant (1996) factors affecting the level of organizational AC were identified; Transferability is important when dealing with knowledge both between firms, and more critical within the firm (Grant 1996). The transferability of a firm’s resources and capabilities is important in determining their capacity to confer sustainable competitive advantage (Barney 1986). The level of AC of a firm is greatly affected by the intensity of which knowledge is being transferred. Grant identified the knowing how with the tacit knowledge and the knowing about facts and theories with the explicit knowledge.

The difference between tacit and explicit knowledge lies in their transferability mechanisms across individuals, space and time. Explicit knowledge is associated with the ability to communicate (Grant 1996), which is effective when during the Potential
AC stage, being able to acquire knowledge through communication (between firms), and also to communicate acquired knowledge to aid assimilation (within the firm). However, tacit knowledge is associated with application of knowledge, it is observed through its application and acquired through practice (Grant 1996). This is important during the Realized AC stage where knowledge acquired is being practically transformed and exploited within the firm. A firm with intense transferability process have a better chance of building their AC.

Another factor that affects the level of organizational AC is the capacity of aggregation. According to Grant (1996), knowledge can be efficiently transferred depending on the knowledge potential for aggregation. How knowledge is assimilated has been analyzed on the knowledge absorption and aggregation capacity of the receipt. Knowledge absorption depends upon the ability of the receiving party to add new knowledge to existing knowledge both at the individual and organizational levels. Knowledge can be easily aggregated when it is express in terms of common understanding, statistics is a useful language for aggregating when dealing with explicit knowledge.

The next factor that influences the level of organizational AC is Appropriability. This is the ability of the owner of a resource to yield equal returns to the value created by that asset (Levin et al. 1987, Teece 1987). Knowledge can be subject to appropriability (Grant 1996). Grant further explained that tacit knowledge cannot be transferred directly. Therefore it is not directly appropriable but can be only through its application of realized AC activity.

Explicit knowledge, on the other hand, faces two key problems of appropriability. The initial as a public good anyone who acquires it can resell without losing it (Arrow 1984) that is firm in the pursuit of building their potential AC can give out information to employees which can make the firm venerable when such employees leave. The second problem is the mere act of marketing knowledge makes it available to existing and potential customers (Arrow 1971) during the realized AC process knowledge can be taken out of the firm through the use of its products or services. Tacit and explicit knowledge are created within firms and stored within individuals.
The next factor to be considered is the specialization in knowledge acquisition. The human brain as limited capacity to acquire, assimilate and transform knowledge according to the principle of bounded rationality (Simon 1991). The creation of new knowledge, acquisition of existing knowledge and the storage of knowledge requires that individuals specialize in particular area of knowledge (Grant 1996). The last factor that can affect the level of organizational AC to be considered is the knowledge requirements of production. This allows firm to transform and exploit their potential AC into realization. Production involves the transformation of inputs such as raw materials into outputs such as products or services. The critical input in production and primary source of value is knowledge (Grant 1996).

A firm can build their potential and realized AC if the above factors are carefully considered and developed within the firm. This chapter as fully discussed on AC its capabilities, constitutes, process and factors and how they can affect the firm, however, all these issues may have an influence on firm internationalization. Potential AC can influence firm’s decisions (Johansson and Vahlne, 1977) such as market entry modes and strategies for competitive advantage in the business environment. The realized AC can cause the firm to discover new opportunities and bring about innovative capabilities. The internationalization of a firm and network theories bring to life this issues, and more will be discussed in the next chapter.
3 INTERNATIONALISATION

This chapter entails a brief overview of Internationalization and its processes, modes of entering the foreign market, and theories related to internationalization (the internationalization of a firm and network theory).

3.1 Overview

Internationalization process as been discussed as the ability of a firm to focus its development on expansion, acquisition, integration, and use of knowledge about foreign markets and operations (Johanshon and Vahlne, 1977). It has also been described as a gradual learning development taking place in distinct stages and over a relatively long period (Melin, 1992). A basic assumption of the Uppsala Model is that lack of knowledge about foreign markets is a major obstacle to international operations, but such knowledge can be acquired (Johanshon and Vahlne, 1977). However, the basic learning assumptions underlying the Uppsala model remain valid because the model managed to present reasonable explanations for the firms” internationalization processes of a significant number of firms (Forsgren, 2002).

Almor et al. (2006) developed a framework which predicted the relationship between firm-specific knowledge intensity and the internationalization of firm’s functions. This can be likened to the relationship between firms potential and realized AC and internationalization. The framework was as a result of building on the claims that existing models as not dealt thoroughly with the relationship between knowledge acquisition, assimilation, transformation and the sequence in which firms exploit internationalize value adding functions (Almor et al. 2006). However, using the expanded version of the product cycle framework developed by Vernon (1966, 1979) they illustrate how the role of R&D, production and marketing activities, as a salient determinant of competitive advantage can build firms AC along their life cycle.

Their findings show a relationship between the potential and realized AC of firms and their internationalization, and suggest that the relative importance of R&D, production, and marketing in determining competitive advantage across the three phases of the
cycle that introduction, growth and maturity stage of the firm (Almor et al. 2006). As products become less knowledge-intensive and more homogenous, the complexity and frequency of information and knowledge flow are reduced (Melin, 1992; Vernon, 1979). Almor et al. (2006) framework identify knowledge intensity as the major trigger of internationalization, challenging that proprietary knowledge dissipates with product maturity, as the relevant information spreads and ceases being proprietary. Likewise in the situation of a firm, knowledge acquisition and assimilation are a major trigger of internationalization, and when challenges arise firms realized AC becomes essential in the firm's life cycle.

3.2 Modes of Entering the Foreign Market

Mode of entry has been a necessary decision for firms to take when engaging in internationalization. The internationalization of a firm theory viewed internationalization as a process and emphasized the modes of entry into the foreign market as a kind of international business phenomenon that is necessary for its actualization a firm for their internationalization (Johanson and Vahlne, 1977). The mode of entry could be exportation, licensing, joint ventures or direct investments (Kotler & Keller 2006).

Exportation this is a means of moving or transferring a product or service across borders or to a host country. Exportation can be done directly or indirectly (Kotler & Keller 2006). In direct export, goods can be exported to host countries through order placement; this is when an individual or a company from a foreign country order for a particular goods and services, such goods are delivered into the foreign country. It can be an easy way to introduce a company goods into a country without much tariff and taxation.

The indirect export method could be through the use of agents for exportation in the host country. This can be done by identifying an individual who is interested in the business in the foreign country and negotiating how such goods could penetrate the market. This is the most common way by which company enters into the foreign market. Another method could be through sales subsidiaries; this is a means by which
the already made goods are sent into the country and have like a sales point. Some companies mostly have just warehouses at this stage where they store the product and distribute to their sales point. They are mostly managed by the agents. Firms can build their potential AC can be developed through this method. Knowledge acquisition can be generated through their relationships in the foreign market.

Licensing is a means by which the firm give the foreign companies the right to manufacturing process, trademark, patent, trade secret, or other items for production or service use in the country (Kotler & Keller 2006). Potential and realized AC could be achieved through this process. However firm share their knowledge through this process can allow exposure of companies secret which can cause appropriability issues (Arrow 1984). Joint venture can be a means of foreign collaborations of which companies share ownership or control (Kotler & Keller 2006), this could be through merger or acquisition. Building firms AC in this situation may cause problems for the firm because managers may find it difficult to effectively to transform and exploit existing knowledge that affects realized AC to new employees. However, a firm can acquire new knowledge from this collaborations thereby increasing their level of potential AC.

Direct investment is a complete form of foreign involvement as per direct ownership of manufacturing or assembling plant in a foreign country (Kotler & Keller 2006). This can be a form of green investment. Knowledge can be derived through direct involvement of the firm with the international market. Firms’ can build their potential AC through research and development department or direct feedbacks from customers. However, it may be easier for the firm to recognize opportunities and get firsthand information from the market directly.

3.3 Internationalization of a Firm (Theory)

The internationalization of a firm model shows the experimental learning and gradual commitment of a firm (Johanson, J. and Vahlne, J-E. (1977). The theory recognizes the gradual involvement and procedural entering of firms into the foreign market (Johanson, J. and Vahlne, J-E. (1977), for instance, the firm can start with the
exportation through order placement or agents, then make use of sales subsidiaries and licensing before direct investment. The market committed shows the resources commitment and the degree of commitment of the host market. The knowledge of the foreign market is very important before entering into that market. Such market knowledge determines the commitment decision, whether the company should invest in such countries or not. Potential AC can allow firm acquire and assimilate required market knowledge, and their realized AC activities can transform such knowledge and make it usable for firm’s commitment decision making. Firm must be aware of the regulations, culture and tradition of the market, and also know its customers, their needs and other factors affecting the business environment. This awareness can develop the AC of the firm that is the ability for the firm to acquire, assimilate, transform and exploit external knowledge to create organizational capabilities (Zarha & George 2002).

The internalization model shows the distinction between the state and change aspects of internationalization variables (Johanson and Vahlne 1977). Elements of the state aspects include the market commitment and market knowledge while the change aspects include the commitment decisions and current activities. The market committed shows the resources commitment and the degree of commitment of the host market. It was analyzed that the higher the degree of commitment to the market the higher the resources the firm is willing to allocate. Knowledge has been viewed as a firm resource (Barney 1991), therefore a firm that develops its potential AC increases its resources.

Firm can increase their commitment to the foreign market through research and development or other forms of knowledge acquisition schemes in order to make decisions. However knowledge acquired can be viewed resources through realized AC and transferred back to the foreign market. The increase in commitment of such companies will increase the business activities carried out in the foreign country. Business activities such as marketing strategies, distribution networks, production plants, etc. can be achieved when the AC process is completed.
However, the model also highlights how objective and experiential knowledge influences the degree of internationalization of the firm. Objective knowledge, pertaining to such issues as market methods, statistical tools, and such, can be generalized across markets, while experiential knowledge is endemic and concerned with issues such as culture, distributive structures, and customer characteristics (Badaracco 1991, Inkpen 1996, Nonaka, 1994). Both knowledge mentioned above are knowledge acquisition methods (Penrose 1959) and can be used to build firm’s potential AC. According to the model, experiential knowledge reduces the firm’s perception of market uncertainty or risk, and these have an impact on commitment to international markets (Johanson and Vahlne 1977).

In conclusion, market knowledge and market commitment affect commitment decision of a firm and the level of business activities they carry out. Every business will like to run on profit and stay in business. Businesses go international for expansion and to increase their profit, sales volume, and customer base. Other factors such as labor, technology used, and management could affect commitment decision of a firm. However, there has been a shift in business perspectives from Earth, labor, and capital being the primary focus of resources to intellectual and social capital resources (Evans & Bosua 2014). Firms are now learning organizations that connect between networks and consciousness (Guevara & Dib, 2007).

### 3.4 Network Theory

Another theory used in viewing the internationalization of the firm was the Network model. The model approach by Johanson J. and Mattsson L-G. (1988) in their article “Internationalization in industrial systems – A network approach” focuses on the industrialization of a firm. How firms build long-term social relationships within the industry. These long-term relationships build up a network for them both in the domestic market and international market and also to gather market knowledge, create opportunities, and awareness of the international market.
Network theory explains the interdependencies of international trade, international investments, industrial organization and international business behavior (Johanson & Mattsson, 1988). Industrial market builds long-term relationships between suppliers and customers. In the industrial market, the marketing strategy focus should be on buyer-seller relationships (Webster 1979, 50) and not on product or market. This shows the important of networks and relationship building for the firm. Internationally export suppliers are the main supplier because they provide half of the customer’s needs for products in most cases. As earlier mentioned firm can build their potential and realized AC through knowledge derived from exportation activities.

Industrial system is composed of firms engaged in production, distribution, and use of goods and services. International firms are inter dependent on each other factors, such influence includes prices, quality and quantity of goods and services exchanged, and also the timing of such exchanges (Johanson & Mattsson, 1988). This interdependent relationships can be expanded to include knowledge sharing.

According to the network model, the internationalization of the firm means that the firm establishes and develops positions in relation to counterparts in foreign networks. This can be achieved through international extension, penetration, and integration (Johanson & Mattsson, 1988). Firms go international to utilize and develop its resources (such as knowledge) in a way that its long-run economic objectives are served, and that strategy increases the possibility of reaching its general objectives. The network theory also discuss the four cases concerning internationalization of the firm and network (Johanson & Mattsson, 1988);

The Early Starter: firm possesses a low degree of internationalization. Firm in this case needs to invest in their potential AC to acquire and assimilate knowledge from the foreign market. The firm also needs realized AC to transform and exploit such knowledge before making decisions. However, with network sharing this characteristics such as the extent to which a firm is committed to a market, can affect the level of knowledge acquired from the foreign market (Johanson & Vahlne, 1977, 1990). That is the greater the commitment to the market, the stronger the information channels (Johanson & Wiedersheim-Paul, 1975) which can increase the firm’s
potential AC. The firm level internationalization status of the early starter suggests that it possesses only weak channels with foreign networks (Hadley & Wilson 2003). Firms at this stage have few and rather unimportant relationships with firms abroad. In this situation, firm has little knowledge about foreign markets, and it cannot count upon utilizing relationships in the domestic market to gain such knowledge.

The internationalization model contends that knowledge can be acquired through the firm increasing its interaction with the market or intensifying its current activities (Johanson & Vahlne, 1977, 1990). Therefore, firm at this stage can develop their potential and realized AC through increasing its interactions and activities in the foreign market. The strategy used at the early starter stage is the use of agents or other forms of interactions in the foreign countries such strategies can aid the minimizing cost of knowledge acquisition, demands for adjustments and utilization of the positions in the market occupied by the already established firm. Not only can the firm increase its AC through direct actions (Hadley & Wilson 2003), but Johanson and Mattsson (1988) also discuss on how the underlying tenet of industrial network theory is that the knowledge of other actors in the network can influence a firm’s decision making (Axelsson & Johanson, 1992; McKiernan, 1992).

The less experience a firm has of international business, the less knowledge it will have to organize international operations (Eriksson et al. 1997), the early starter’s lack of current activities involving foreign actors, directly or indirectly, hinders the acquisition of knowledge (Hadley & Wilson 2003). That is, it is difficult for the firm to acquire, assimilate, transform or exploit knowledge without prior experiences in the international market. This can show the effect of firm’s level of internationalization on their AC. Therefore, the relationships that the international firm has with its network are considered important in developing firm’s AC.

The Late Starter: they have a high domestic market relationship. The Late Starter enjoys a knowledge advantage relative to the Early Starter (Hadley & Wilson 2003). Network theory explains that the knowledge of other actors in the network can influence a firm’s decision making (Johanson & Mattsson, 1988) that is firm’s AC can be developed within their immediate environment and such relationship can be a
driving force to enter foreign markets. Firms’ especially new ones make resource commitment to internalization process based on experiences from their business network (Bonaccorsi 1992).

Prior experience is known as a notion for developing firm AC (Cohen & Levinthal 1990). The experiences are important in knowledge acquisition and assimilation through communication and shared through interpersonal relationships in the network (Bonaccorsi 1992, Welch & Luostarinen 1988). Firms can imitate other firms with international experience within their network in internationalization decision making (Bonaccorsi 1992). The firm can be selected out by foreign customers or suppliers because of the strong domestic market relationship. The extension pattern will be by international character of indirect relations and the existence of entry opportunities (Johanson & Mattsson, 1988).

The next are the Lonely International: the firm is highly internationalized while its market environment is not (Johanson & Mattsson, 1988). Such firm resides in an internationally inexperienced network and its greater degree of commitment to the internationalization process, as reflected by its relatively high degree of internationalization, is contended to provide it with greater levels of experiential knowledge relative to the Early Starter and Late Starter (Hadley & Wilson 2003), that is the firm’s level of internationalization can develop its AC. The lonely International firm enjoys the advantage of gathering knowledge directly from their international experiences, unlike the Later Starter who gather knowledge based on other firms experiences within their domestic environment (Johanson & Mattsson, 1988). Direct experiences can provide firm with the external knowledge that can be used to develop their AC. It can reduce firm’s cost of research and development or other potential AC activities.

Firm has experience from relationships within foreign countries. The direct relationship of the lonely International firms with its foreign market will increase firms required knowledge for internationalization (Johnson & Vahlne 1992). It has acquired knowledge and means to handle international environments, therefore making it easy to blend new experiences with existing knowledge and firm’s procedures (Johnson &
Vahlne 1977). It can allow firm to create routines, so that when new knowledge is added to the firm it as the capacity for aggregation which creates a platform for functional realized AC. It is easy for such firm to go international because of their high level of knowledge of the foreign market.

The final kind of firms are the International among others: the firm and its environment are highly internationalized. The International among others firm enjoys a high degree of internationalization (Johanson & Mattsson, 1988). Such firms have established and developed positions and resources in foreign markets (Hadley & Wilson 2003). The International among others firms is also highly positioned in their domestic environment which allows them to have a high level of existing knowledge. Regarding extension and penetration the firm as possibilities to enter the foreign market.

This shows that firm with large AC have the ability for extension and penetration in foreign market because they have acquired the necessary knowledge needed for such investment. Multinational firms fall into this category as they enjoy superior knowledge base from the diversity of international environments which they operate in (Ghoshal 1987). Therefore International among others firms enjoy both interdependency of an internationalized network and a rich level of AC through their high level of internationalization (Hadley & Wilson 2003). The International among others firms are highly internationalized in the macro level; such firms can improve its level of AC through greater experience in integrating and coordinating its network position (Johnson & Mattsson 1988).

The theories above have built a foundation for defining the relationships between potential and realized AC and internationalization. It also reflects the two factors of internationalization that is the business environment and firm’s level of internationalization to be considered in this research. However, further discussion and also the proposed hypothesis is explained in the next chapter.
4 ABSORPTIVE CAPABILITIES AND INTERNATIONALISATION

Previous research has treated firm knowledge as an implicit explanation of the internationalization process (Leonidou & Katsikeas 1996). The internationalization model which explains the internationalization process highlights the importance of firm’s knowledge in taking internationalization decisions (Johanson & Vahlne, 1977; Johanson & Vahlne, 1990). Internationalization of a firm as also been seen as a set of connected learning process (Axelsson and Johanson, 1992). The learning process can be derived from the firm's relationship with actors in the international business environment such as competitors, customers, suppliers and government, this relationship are important assets and sources of foreign market knowledge acquisition for the firm (Sharma and Johanson, 1987). It allows the firm to be exposed to new market opportunities and external information (Axelsson and Johanson, 1992).

New ventures can facilitate their internationalization process through knowledge derived from their network relationship (Coviello 2006). Potential and realized AC are gathered through network even before international new ventures are founded (Shane 2000). Coviello (2006) addresses a need to comprehend international new ventures systems at internationalization and pre-internationalization as well as prefounding. Therefore AC is crucial in determining the internationalization of international new ventures. A firm can develop its potential AC by adding new knowledge with that of different accomplices to make new information. It is through these connections that the firm create realized AC activities that can allow firm to work together in international business sectors and acquire more knowledge to recognize what kind of remote market learning it needs. Furthermore, AC through its connections empowers can allow the firm to distinguish the kind of foreign market information it needs and the obstructions this will make in a progressing business action.

Absorptive capacity is expected to help firms overcome barriers to both operating in international markets as well as undertaking Research and Development. International firms invest in research and development which involves acquisition and assimilation of knowledge (Potential AC) (Zahra and George, 2002). Knowledge and learning can be expected to have a major impact on growth (Harris & Li 2008), these require firms
to acquire and assimilate new knowledge to grow and compete in foreign markets in which they have little or no past experiences (Autio et al., 2000). When a firm internationalizes, they can gain sufficient resources and capabilities through AC to overcome the initial costs of competing in international markets, so as to prepare firm for foreign competition, facing dual challenges of overcoming rigidities, and adapt to new knowledge (Eriksson & Johanson 1997).

Knowledge diffuses through a variety of mechanisms (Döring & Schnellenbach 2006), among which networks of collaboration in innovation activities are considered pivotal. External collaboration with partners in foreign markets provides access to exclusive resources of foreign partners, which can provide complementary knowledge that may be in short supply in the firm’s home country. Absorptive capacity determines collaboration returns to innovation (Badillo and Moreno 2015).

Firms can benefit from interaction with international partners to access new technologies and the specialized and unique knowledge they are unable to find locally (Badillo and Moreno 2015). In consequence, only with the necessary capability to identify, assimilate, and develop useful external knowledge can the host firms and regions effectively benefit from incoming technology flows through a network of collaborators (Badillo and Moreno 2015). The differential impact of external incoming knowledge flows depends mainly on firms’ absorptive capacity (Cohen and Levinthal 1990).

Absorptive capacity is equally important for both domestic and international sources of external knowledge (Badillo and Moreno 2015). Investing in internal innovation activities and training employees add to the absorptive capacity of the firm and increase its ability to absorb and assimilate any knowledge from external sources (Badillo and Moreno 2015). However, when these sources originate from foreign market, with different social and economic backgrounds, absorptive capacity may play even a higher role than in the case of external knowledge originated within the same region or economic area (Badillo and Moreno 2015).
According to Badillo and Moreno (2015) firms’ absorptive capacity helps in determining collaborative research returns. They further explained that firms that have high absorptive capacity are more efficient at translating external knowledge (Potential AC) from cooperative agreements into new, specific commercial applications (Realized AC). They emphasize the importance of absorptive capacity in international collaborations by concluding that absorptive capacity is efficient when the partner is international, probably because absorptive capacity gives the ability to better absorb and assimilate the knowledge of innovation from a different national system.

As earlier discussed in previous chapter, firm internationalization is influenced by a series of factors these include factors originating from the firm’s business environment such as the industry, the size of the domestic market and the level of competition, use of external knowledge, establishment of collaboration with external partners, and barriers to innovation. Others include factors that are related to firm’s level of internationalization (international experience), perceived barriers and opportunities, and commitment to internationalization (Fischer and Reuber 2008). This factors have been reflected in the discussions above, however their relationships with potential and realized AC is further unveiled and are used to create hypothesis for the research.

4.1 Absorptive Capacity and Level of Internationalization of a firm

According to Cohen and Levinthal (1990) the bases of the notion of absorptive capacity is that the firm requires prior related knowledge to assimilate and use new knowledge. Internationalization of a firm can depend largely on the level of internationalization that the firm experience. Accumulated prior knowledge increases both the ability to add newly acquired knowledge into memory and the ability to assimilate and use it (transformation and exploitation). This implies that prior knowledge increases the ability of firm to build their potential and realized AC.

Accumulated prior knowledge of the international market can make a firm acquire new needed knowledge and put them in action during internationalization process Cohen
and Levinthal (1990). This shows the dual relationship between the two concepts as potential and realized AC could help firm make international process decisions as well. Firms search for information in areas where they have had past successes (Christensen 1998). By directing knowledge search areas, past experience influences the development of future acquisition capabilities. Experience is the product of environmental scanning (Fahey 1999), benchmarking (Garvin 1993), interactions with customers (Nonaka & Takeuchi 1995), and alliances with other firms (Lane & Lubatkin 1998). As experience reflects a firm's successes and failures over time (Nelson & Winter 1982), it can also significantly determine how firms acquire and assimilate new knowledge, as well as the locus of their future technological search. An outcome of continued exploration in a firm's search zone is a more developed and refined capability to acquire and assimilate external knowledge, which increases Potential AC (Zahra and George 2002).

The development and usage of foreign networks are closely identified with the learning process for general internationalization (Welch and Welch 1996). A firm’s relationships offer various opportunities for learning (Inkpen, 1996; Osland & Yaprak, 1995) through exposure to variety of knowledge sources rather than relying solely on its knowledge capabilities within the firm (Hadley & Wilson 2003). Previous empirical research has demonstrated that a firm can acquire relevant international knowledge from its relationships (Chetty & Eriksson, 1998; Holm et al., 1996). Such relationships can be built through export, licensing, collaboration, minor Ownership, and investment. These relationships can have an effect on firms’ sales volume, market share, profit, accessing a new market, building firm’s image, and having access to new knowledge for internationalization.

A firms’ level of internationalization comes with experiences from the foreign market place which can develop their potential and realized AC which can be useful for making decisions or resolving problems relating to international operations (Brockmann & Anthony, 1998). High level of internationalization of a firm can be derived from its relationship with external actors or for instance firm can recruit people with experience in the targeted foreign market in other to build their potential AC (Hadley & Wilson 2003) for their international operations.
Internationalization process can be slow without foreign market knowledge and experiences (Johanson & Vahlne, 1977). Cohen and Levinthal also referred firm’s AC as a firm ability to use its experiences to acquire new information and to integrate this information within the firm in other to create useful knowledge for its business operations. Some important new information acquired may not be used or exploited (Cohen and Levinthal, 1990), due to little or no prior experiences making it difficult to absorb such knowledge. High level of internationalization provides firm with prior related knowledge for collaboration and ability to handle new opportunities. Firm benefits from prior experiences through collaboration which builds up its potential AC, and have learned to create routines such as gathering, interpreting and transferring knowledge (realized AC) when face with future co-operations (Simonin 1999).

It has been argued that the more experience the firm has of acquiring foreign market knowledge in previous operations, the more absorptive capacity it will develop (Vesna 2008). Based on the earlier discussions in the literature reviews it as shown the relationship between potential and realized AC with firm’s level of internationalization, and this will be empirically tested whereby the first proposed hypothesis is created

*Hypothesis 1: An organization’s level of Potential and Realized Absorptive capacity has a positive relationship with firm’s level of internationalization*

### 4.2 Absorptive Capacity and Business Environment

Business environment is the area of which firms operate and carry out their business activities. Firms recognize and respond to needs and trends in their environment (Kotler & Keller 2006). Firm’s business environment have been classified into micro environment which consists of customers, competitors, suppliers, and public, while the macro environment consists of the political, economic, social, technological and legal environment (Kotler & Keller 2006).

AC can have an effect on firm's aspiration level in a technologically progressive environment (Cohen and Levinthal, 1990). They further explain that the greater the
level of firm’s AC the more sensitive it becomes to emerging technological opportunities and the more likely its aspiration level will be defined in terms of the opportunities present in the technical environment. Organizations with higher levels of potential and realized AC would tend to be more proactive and exploiting opportunities present in the environment. Just like in the technological environment other areas in the business environment can also be affected by the level of firm’s AC. In the ever changing international environment firms can only survive with the level of knowledge they have. This knowledge (example new market, competitors, technology) can help them create strategies to survive the environmental changes.

A firm rich in Potential AC is said to be proactive as it has acquired and assimilated knowledge, therefore if the firm is facing challenges in an area it will conduct more innovative activity and thereby increase its awareness of outside opportunities. These firms do not wait for failure on some performance dimension but aggressively seek out new opportunities through realized AC activities (Cohen and Levinthal, 1990).

A negative event in a firm or in its environment can trigger firm to increase their level of AC activities. Triggers are events that encourage or compel a firm to respond to specific internal or external pressure (Walsh & Ungson, 1991; Winter, 2000). Kim (1998) illustrates that a crisis, although a negative event, can intensify a firm's efforts to achieve and learn new skills and to develop new knowledge that increases AC. Crises threaten a firm's existence, possibly stimulating learning (Winter, 2000) and leading the firm to intensify their potential and realized AC activities (Kim, 1997a).

External triggers are events that may influence the future of the industry in which the firm operates (Bower & Christensen, 1995). They include radical innovations, technological shifts, emergence of a dominant design, and changes in government policy, among others (Zahra and George 2002). However, some triggers may require a different type of knowledge that is not available within the firm or is not easily acquired on the market (Chaudhuri & Tabrizi, 1999). As the intensity of triggers increases, the firm invests heavily in building its potential and realized AC. For instance, a change in the dominant design within an industry will compel the firm to
expend effort in acquiring the information necessary to develop the new technology—a process that will broaden its Potential AC (Zahra and George 2002).

AC can be a source of competitive advantage (Zahra and George 2002), with the raising level of competition in the international market, a firm’s resources that are valuable, rare, inimitable, and non-substitutable, can give the firm a competitive advantage (Barney, 1991). The firm's capability to effectively create, manage, and exploit knowledge is one such critical resource (Matusik & Hill, 1998). Renewing a firm's knowledge base and the skills necessary to compete in changing markets are forms of Potential AC (Zahra and George 2002). Firms compliment knowledge acquired and assimilate with their realized AC to create their resources and capabilities that can capitalize upon emerging strategic opportunities (Raff, 2000). These opportunities may lead to first mover advantage and such gives the firms superior performance (Ferrier, Smith, & Grimm, 1999), responsiveness to customers (Matusik & Hill, 1998), and other strategic benefits.

Knowledge and innovation are important in creating value and sustaining competitive advantage, therefore ability to transform and exploit knowledge acquired is critical to increase innovative capabilities of a firm to survive in a dynamic and turbulent environment (Evans & Bosua 2014). High level of internationalization of a firm can increase the availability of external knowledge sources, the capability to absorb and deploy external for firms’ innovation processes becomes an important source of competitive advantage (Fosfuri & Tribo, 2008). Therefore potential and realized AC becomes an advantage in a highly dynamic and competitive international business environment. Development and management of AC can lead to greater acquisition of knowledge which allows such firms to become more innovative and competitive in the international business environment (Zahra & George, 2002; Cohen & Levinthal, 1990).

Market knowledge has been broken down into foreign business knowledge and foreign institutional knowledge (Eriksson et al 1997). Foreign business knowledge pertains to market, competitors and clients, while foreign institutional knowledge is concerned with knowledge of institutional frameworks, government, culture and norms. Firms
with rich potential AC can acquire and assimilate this needed market knowledge and also create routines to achieve their realized AC, this can allow firm to recognize opportunities and resolve problems in the business environment.

Based on the earlier discussions in the literature reviews it as shown the relationship between potential and realized AC with firm’s business environment. This will be empirically tested whereby the second proposed hypothesis is created.

Hypothesis 2: An organization’s level of Potential and Realized Absorptive capacity has a positive relationship with business environment
5 EMPIRICAL EVIDENCE

This section of the study focuses on the methodology and the procedures that were adopted in carrying out the research work. It explains the type and sources of data used, the research design, the sample and data collection process, measures for the purpose of the study, description of research instruments, data analysis and the result of the study.

The methodology of the study is quantitative research. The methods for carrying out the research is the survey method, this is because questionnaires were used to collect response from the population. Accordingly, statistical tools are used to determine the correlations between the studied variables. SPSS software has been used to run the statistical analysis of the study. The correlations of each variable are identified and are used to test the statistical significance of the results.

5.1 Sample data and collection

Questionnaires were used for data collection. A questionnaire is an instrument containing some questions and/or statements for which the respondent is expected to provide answers to the questions. It is a research instrument that has a set of questions that are expected to provide responses to the research question and the research hypothesis of the research work. The data used for this study were collected in Finland in 2013 with a structured questionnaire using the key informant technique. Podsakoff, MacKenzie, Lee and Podsakoff (2003) methods were followed to lighten the commonly biased method in the questionnaire.

Babbie (1998) defined research population as a census of all items or subject that possess the characteristics, or have knowledge of the phenomenon being studied. The initial population included cross-industry sample of medium-sized Finnish firms that have at least 50 employees and 5 million euros revenue, these selection was to ensure that the firms have adequately established structure, processes, and routines. Voitto+ database owned by Suomen Asiakastieto Oy was used to identify the companies. A total of 2451 companies were recognized and suitable for the initial sample. Amid the
summer 2013 every one of the firms considered as qualified was reached by telephone, and during the primary contact informant was distinguished, and they were inquired as to whether they were willing to take part in the survey.

Confidentiality was accentuated, and a summary of the outcomes to the respondents was assured. Of the 2451 firms, 1034 were reached after several attempts, and 637 organizations agreed to participate in the survey. The survey was online, and every respondent got an individual link to the questionnaire. A sum of four follow-up messages were sent to the contact people who had not reacted to the survey when of sending every update letter. Final data was gathered from 98 firms, representing a response rate of 15.4% (98/637). The vast majority of the respondents were CEOs, yet there were some R&D managers, technology managers, owners and chairmen of the board, which they affirmed holding key position in the organization.

The possible non-response bias was considered, and ANOVA (analysis of variance) test was performed to check if there were contrasts between the respondents and with firms that did not answer the survey. The number of employees (financial year 2011), revenue (financial year 2011), and gross result (financial year 2011) were looked at between the organizations in the first sample that did not answer the survey, and the respondents. There were no huge contrasts between the respondent organizations and the population in terms of the number of employees and the profitability (gross result). There was a slight distinction in terms of how huge organizations (considering revenue) answered the survey. The average revenue of non-respondents was (~99M €) almost twice as much as the average revenue of the respondents (~52M €). This can be explained by the fact that large companies’ CEOs rarely have time to respond to research questionnaires.

It was further researched if there are any distinctions among the respondents as indicated by their response timing (Armstrong and Overton 1977). The respondents were separated into two groups, first were firms which replied with no reminder messages, and secondly firms that responded to the survey after 1 to 3 update messages. This time, items were added to the questionnaire to include market performance (adapted from Delaney & Huselid 1996), and innovation performance
(adapted from Alegre, Lapierda and Chiva 2006; Alegre and Chiva 2008). This test gave comparable results as the initial one; there were no notable differences in analyzing the number of employees and gross revenue, nor with respect to the questionnaire base aspects, however there was a slight distinction of what comes to the revenue.

Moreover, taking after the directions of Podsakoff et al. (2003), the Harman's one factor test was used to assess the risk of common method bias. An explorative factor analysis was conducted which all the variables factors were embedded. The largest factor that emerged represented 27 percent of the variance. Along these lines, it could be presumed that that common-method-variance bias is not a major concern.

5.2 Measures

This study measures two different variables comprising of firm internationalization and the level of firm absorptive capacity. Each variable contains of several items, which have been determined based on previous research. The data have been used in order to determine the relatedness of the items to each firm.

The respondents were asked to determine the level of absorptive capacity of their companies. There are several ways to measure firm absorptive capacity. For instance, Transferability of a firm’s resources and capabilities as a critical determinant of their capacity (Barney 1986). The level of AC of a firm is greatly affected by the intensity of which knowledge is being transferred. The capacity of aggregation. According to Grant 1996, knowledge can be efficiently transferred depending on the knowledge potential for aggregation. How knowledge is received has been analyzed on the knowledge absorption and aggregation capacity of the receipt. Knowledge acquisition which includes R&D spending (Cohen and Levinthal 1990), and the number of patents as well as scientists and engineers employed (Zahra & George 2002). Knowledge requirements of production. Production involves the transformation of inputs into outputs. All have been used as a proxy to measure firm AC.
This study measures absorptive capacity based on subjective assessment of key informants (Houston & Sudman 1975, Kumar, Stern & Anderson 1993) as a firm-specific capacity and ability to absorb knowledge. Absorptive capacity has been categorized into two subgroups called potential absorptive capacity and realized absorptive capacity (Zahra and George 2002).

There is a total of 10 items that have been shared between potential AC and realized AC. The initial four items make up the potential AC with the wording: 1. Our firm has heavily invested in new information acquisition, 2. Our firm can quickly identify and acquire required information, 3. Our firm goes to acquire new information almost instantly, 4. Our firm continually makes an effort in increasing the number of information sources. The last six items consist of wordings for realized AC: 5. Our firm can adapt new information easily, 6. Our firm can effortlessly interpret information acquired, 7. Our firm is good at adding new information to existing ones, 8. Our firm is good at using information from various sources for the benefit of the firm, 9. Our firm has practices that allow the usage of new and existing knowledge, 10. Our firm is good at using new information in its operations. The Cronbach alpha value of potential AC is .746 and realized AC .904.

The variable “level of internationalization” was measured by their foreign activities and firm international performance. This was classified into five items for the foreign activities 1. Export, 2. Licensing, 3. Collaboration, 4. Minor Ownership/ Investment 5. Major controlling ownership, and six items for firm international performance with the following wording: 1. sales volume, 2. market share, 3. profit, 4. market access, 5. company image, 6. access to new knowledge. The Cronbach alpha value of firm’s level of internationalization is .905.

The firm’s “business environment” was measured by their customer's behaviors items 1 to 4, level of competition and competitors activities items 5 to 8, technological items 9 to 12, and innovative changes items 13 to 21 in the environment which was classified into 21 items with the following wordings 1. Customers’ product and service preferences change to a notable extent over time, 2. Our customers tend to look for new products and services all the time, 3. We are witnessing demand for our products
and services from completely new customers, 4. New customers tend to have product-related needs that are different from those of our existing customers, 5. It seems that we are getting new competitors all the time, 6. Competitors are constantly changing their strategy, 7. Our competitors have been the same for years, 8. Few players dominate a major share of the market, 9. Technology is changing rapidly 10. Technological changes provide big opportunities,

11. A technological breakthrough has enabled a large number of new products and services, 12. Technological developments are rather minor, 13. Short product life cycles push us to innovate continuously, 14. Typical product life cycles allow us long development periods, 15. It typically takes a long time before competing products emerge in the markets, 16. Our competitors are not very keen to utilize technologies or processes that we have created, 17. Competitors quickly enter the same markets with similar products as ours, 18. The more users our product has, the more valuable it is to a single customer, 19. The more similar the products in the markets are, the better it is for our company, 20. Our products/services need to reach a lot of customers quickly 21. Other firms offer similar types of products to customers as us. The Cronbach alpha value of firm’s business environment is .726.

5.3 Research design

Research designs are used by researchers as a scheme or blueprint for data collection prior to actual data. It is a useful tool, which serves as a guide during generation primary data, the data collection and analysis process. Research design is concerned with the structuring of an investigation for the purpose of identifying the relevant variables and their relationship to one another. It is a necessary step in a research process, if research problems and hypothesis are to be adequately addressed.

The research design of the study was based on the variables. In figure two below, the model shows the dual relationships between firms level of internationalization which were determined by their international activities and their level of international
performance and potential and realized AC. It also shows the dual relationship between potential and realized AC and firm’s business environment which are made up of customers, competitors, technological environment and innovativeness.

**Figure 2 Research Design of the Study**

### 5.4 Analysis and Results

This subchapter presents the empirical analysis and results of the data used for the study. Firstly, the descriptive statistics of the data are presented, secondly, the correlation analysis is provided to test the set hypotheses. Finally the results of the analysis are presented.
Figure 3 Bar Chat of Firm’s Level of Internationalization

The bar chat above represents the level of internationalization of the firms which was categorized by; no international activities, import only, export only, many international activities

Table 1 Firm’s Level of Internationalization

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>no int</td>
<td>24</td>
<td>24.5</td>
<td>24.5</td>
<td>24.5</td>
</tr>
<tr>
<td>import only</td>
<td>17</td>
<td>17.3</td>
<td>17.3</td>
<td>41.8</td>
</tr>
<tr>
<td>export only</td>
<td>20</td>
<td>20.4</td>
<td>20.4</td>
<td>62.2</td>
</tr>
<tr>
<td>many activities</td>
<td>37</td>
<td>37.8</td>
<td>37.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>98</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Result shows that 24.5 percent of the respondent do not have any international activities, 17.3 percent do importation only (for example raw materials, human
resource e.t.c.), 20.4 percent do exportation of product of services while 37.8 percent combine several international activities.

Table 2 Range, Means and Standard Deviation of Firm’s Revenues and Employees

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>98</td>
<td>51</td>
<td>2192</td>
<td>241.18</td>
<td>352.087</td>
</tr>
<tr>
<td>Revenue 2012 (tEUR)</td>
<td>88</td>
<td>4474</td>
<td>679452</td>
<td>49172.80</td>
<td>89381.653</td>
</tr>
<tr>
<td>Turnover from foreign markets</td>
<td>74</td>
<td>0</td>
<td>100</td>
<td>38.30</td>
<td>37.509</td>
</tr>
<tr>
<td>in 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees working full-time</td>
<td>74</td>
<td>0</td>
<td>70</td>
<td>12.09</td>
<td>19.805</td>
</tr>
<tr>
<td>abroad in 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table 2 above reflects the range, means and standard deviation of the firm’s revenues and number of employee in total, and also in the foreign market. The total number of employees ranges from 51 as the minimum to 2192 as the maximum, with a mean of 241.18 and a standard deviation of 352.087. However, number of employees working full time abroad ranges from 0 to 70, with an average of 12.09, and a standard deviation of 19.085. The firm’s total revenues ranges from 4474 to 679452(tEUR), with a mean of 49172.80, and a standard deviation of 89381.653. However, the total turnover from foreign markets ranges from 0 to 100, with an average of 38.30, and a standard deviation of 19.805.

The means, standard deviations and the correlations among the variables for Absorptive capacity (Potential AC and Realized AC), and internationalization (firm’s level of internationalization and international business environment) are presented in Table 3.
The correlation results were used to test the validity of the proposed hypotheses. Hypothesis 1 which predicted a positive relationship between potential and realized AC and firm’s level of internationalization. The Table 3, shows that the coefficient for this variable are supporting the hypothesis. The result shows Potential AC had a positive relationship and significant (b = .263, p < .05), while Realized AC had a positive relationship and significant (b = .313, p < .01) with firm’s level of internationalization. The result implies that Realized AC activities (transformation and exploitation) has stronger positive relationship with firm’s level of internationalization than Potential AC activities (acquisition and assimilation).

Hypothesis 2 which predicted a positive relationship between potential and realized AC and firm’s business environment. The Table 3, shows that the coefficient for this variable was positive thus supporting the hypothesis. The result shows that Potential AC had a positive relationship and significant (b = .615, p < .05), while Realized AC had a positive relationship and significant (b = .659, p < .01). The result implies that Realized AC activities (transformation and exploitation) has stronger positive relationship with firm’s international business environment than Potential AC activities (acquisition and assimilation).

The result shows the relationships between the individual variables of each construct. That is there is a positive relationship between potential and realized AC with a
significant of \((b = .808, p < .01)\). There is also a positive relationship between firm’s level of internationalization and firm’s business environment with a significant of \((b = .894, p < .01)\). The results are theoretically discussed in the findings of the concluding chapter.
6 CONCLUSION

The final chapter concludes the respective paper. First, a discussion of the overall study is provided. Second, a summary of the results of the study is presented. Third, managerial implications are brought up. Fourth, the theoretical contributions of the study are evaluated and the limitations are presented. Finally, possible future research directions are provided.

6.1 Discussions

This paper started with a broad perspective of knowledge, innovation and its dual relationships with the internationalization of a firm. It showed that knowledge and learning as fundamental to the internationalization of firms. It recognized various studies which discussed; how knowledge assimilation and exploitation can allow firm compete and grow in the international market (Autio et al, 2000). Rapid changes in the business environment have caused firms to compete through innovation how innovative activities can be effective through acquiring, developing and transferring knowledge (De Luca and Atuahene-Gima, 2007), and how Innovative businesses can grow their capacity to function in the international market through external knowledge sources such as collaborations, R&D, acquisitions, joint ventures, licensing, contracts and inter firm relationships (Zahra & George 2002, Fosfuri & Tribo 2008).

The paper also discussed how taking to action knowledge generated in the international business environment can become necessary for competition and survival of the firm. Taking to action knowledge generated in the international business environment can become necessary for competition and survival of the firm. Issues that were raised affecting the internationalization of a firm were business environment (North, 1990) transferability of knowledge (Kogut and Zander, 1993), and organizational structure of the firms engaged in international business exchange (Bartlett and Ghoshal, 1989), and international business relationships (Blankenburt Holm, Eriksson and Johanson, 1996). This can be illustrated by the fact that conducting international business relies on knowledge acquisition, which emerges from accumulated experiences of specific relationships (Barkema and Vermeulen, 1998; Delios and Beamish, 1999).
This research suggests that if a firm is able to measure its absorptive capacity, the result may improve the firm’s international business activities and performance. Reasons for absorptive capacity measurement suggested by this research is to enable firm to increase their level of internationalization by drawing from their international experiences, and to also have a better understanding of their international business environment to gain new opportunities, achieve sustainable competitive advantage and to increase their survival rate in the fast growing global market.

Further discussions in this study were on the definitions of Absorptive Capacity which had different views which focused on firms learning ability to value, assimilate, and apply new knowledge to commercial ends (Cohen and Levinthal (1990), and also as a dynamic capability which influences the nature and sustainability of competitive advantage of an organization (Zahra & George, 2002). The two types of AC namely potential and realized AC conceptualized by (Zahra & George, 2002) were used to further explain the proactive and reactive aspects of absorptive capacity of firms in the study.

In addition, the KAP model by (Evan & Bosua) were used to explain the five steps of AC process which are triggers, antecedents to knowledge flow and knowledge absorption, knowledge flow, knowledge absorption, and outcomes of enhanced knowledge flow and absorption., and (Grant 1996) knowledge based theory was used to identify the factors such as Transferability, capacity of aggregation, appropriability, specialization in knowledge acquisition, and knowledge requirements of production that can affect organizational level of AC.

Respectively, internationalization process was discussed as the ability of a firm to focus its development on expansion, acquisition, integration, and use of knowledge about foreign markets and operations (Johanshon and Vahlne, 1977). This study emphasis the importance of knowledge in the internationalization process. Factors that affects internationalization was identified and the study focused on two important ones which are the firms’ level of internationalization (can also be referred to as international experience) and business environment. Issues such as how firm can go into the international market through indirect process such as exportation, agents or
sales subsidiaries, or directly through green investments or manufacturing plant in foreign countries were brought up in the study.

Prominent theories on internationalization such as the internationalization of the firm which views lack of knowledge about foreign markets as a major obstacle to international operations (Johanshon and Vahlne, 1977), and also the network theory (Johanson & Mattsson, 1988) which classifies firms by their accessibility to foreign knowledge were used to explain the phenomenon and also elaborates on the importance of knowledge and organizational learning in ensuring, growth, sustainable competitive advantage, and survival of firms in the international market.

The main objective of this study is to deeply discover how the different Absorptive capacity activities are related to firm’s internationalization. The research considers if such activities can influence the process and sustain firm’s internationalization. In particular, the aim was to find out whether potential and realized AC have a relationship with the internationalization of the case companies. Accordingly, the following research question was put in place: What is the relationship between Absorptive capacity and firm’s Internationalization?

Based on the existing literature and prior empirical research, organizational investments in both absorptive capacity expected to positively influence firm internationalization and, consequently, the following two hypothesis were built and tested: Hypothesis 1: An organization’s level of Potential and Realized Absorptive capacity has a positive relationship with firm’s level of internationalization. Hypothesis 2: An organization’s level of Potential and Realized Absorptive capacity has a positive relationship with firm’s business environment.

6.2 Findings

The result support Hypothesis 1 which predicted a positive relationship between potential and realized AC and firm’s level of internationalization. Potential AC which allow firm to be opened to acquiring and assimilating external knowledge (Lane & Lubatkin 1998) was reflected in the result showing that firms can increase their ability
in gathering and assimilating knowledge through their involvement in international activities. The result support the notion of absorptive capacity that organization needs prior related knowledge to assimilate and use new knowledge (Cohen and Levinthal 1990), and a firm levels of internationalization depends on their experiences. It also support previous research that demonstrated how firms are able to increase their potential AC from their relationships (Chetty & Eriksson, 1998; Holm et al., 1996) and through international extension, penetration and integration (Johanson & Mattsson, 1988) such as exportation, licensing, collaboration, minor Ownership and investment.

According to the four case of firms in the network theory, the early starters which are considered to have low level of internationalization (Johanson & Mattsson, 1988), firms in this stage can develop their potential AC through the firm increasing its interaction with the market and intensifying its current activities (Johanson & Vahlne, 1977, 1990). Late starter Firms’ especially new ones make resource commitment to internalization process based on experiences from their business network (Bonaccorsi 1992). The experiences are important in gathering market knowledge through communication and shared through interpersonal relationships in the network (Bonaccorsi 1992, Welch & Luostarinen 1988). Lonely international firms by its relatively high degree of internationalization is contended to provide it with greater levels of Potential AC relative to the Early Starter and Late Starter (Hadley & Wilson 2003). International among others firms enjoy both interdependency of an internationalized network and knowledge acquired through their high level of internationalization (Hadley & Wilson 2003).

In viewing the dual relationships that exist between the variables. The result reflects the importance of potential AC towards firm’s internationalization. It supports the internationalization of a firm theory which emphasis was on the significant of knowledge acquisition and assimilation in other for the firm to take international commitment decisions (Johanson & Vahlne, 1977). Knowledge can be acquired through objective and experiential methods, and the model highlights how objective and experiential knowledge influences the degree of internationalization of the firm (Johanson & Vahlne, 1977). The less experience a firm has of international business,
the less knowledge it will have to organize international operations (Eriksson et al 1997)

Realized AC involves creating routines that transform knowledge acquired and assimilated into actions. The result shows a positive relationship between realized AC and firm’s level of internationalization which support claims that firms use its experiences to acquire new knowledge that is transformed and exploited within the firm in other to create useful knowledge for its business operations (Cohen and Levinthal 1990). A firm with a high level of realized AC creates an environment for new knowledge in such that routines for transforming and exploiting external knowledge are already available to the firm. This can resolve issues of new information not being used or exploited (Cohen and Levinthal, 1990). High level of firm’s internationalization provides a prior knowledge from international activities such as collaboration. This prior experiences through collaboration can enable firm build up its realized AC through learning to create routines such as gathering, interpreting and transferring knowledge when faced with future opportunities for co-operations (Simonin 1999).

Realized AC helps transform and integrate knowledge pertaining to issues such as culture, distributive structures and customer behaviors (Badaracco 1991, Inkpen 1996, Nonaka, 1994), this can reduce the firm’s perception of market uncertainty or risk, which, in turn, impacts on commitment to international markets (Johanson & Vahlne, 1977). The result implies that Realized AC activities (transformation and exploitation) have stronger positive relationship with firm’s level of internationalization than Potential AC activities (acquisition and assimilation). From the earlier definitions of AC, It has been established that potential AC precedes realized AC (Zahra and George 2002), however an increase in firms’ realized AC which involve the exploration of external knowledge can develop into capability to acquire and assimilate new external knowledge which can increase potential AC (Zahra and George 2002).

The result also supports Hypothesis 2 which predicted a positive relationship between Potential and Realized AC and firm’s business environment. It backs up the internationalization of the firm theory that illustrated the importance of market
knowledge acquisition, assimilation, transformation and exploitation before firm’s
decision to go abroad (Johnson & Vahlne 1977). This allows firms to be aware of the
customer behaviors, competition, technological changes, culture and regulations in the
international environment. Such market knowledge determines the commitment
decision, whether the company should invest in such countries or not. The network
theory also support the claims on how firm can increase its potential and realized AC
through its relationships in the international market for instance, the lonely
international firms acquired knowledge and means to handle international
environments, therefore making it easy to transform and exploit new knowledge based
with existing knowledge and firm’s procedures (Johnson & Vahlne 1977). It is easy
for such firm to go international because of their high level of knowledge of the foreign
market.

Relationship interactions of firms with its business environment can increase firms
potential AC (Johnson & Vahlne 1992). Potential AC is measured at the interface
between the firm and its environment (Evans & Bosua 2014). In the technological
environment, the result supports the claims that the greater the level of firm’s AC the
more sensitive it becomes to emerging technological opportunities and the more likely
its aspiration level will be defined in terms of the opportunities present in the technical
environment (Cohen and Levinthal, 1990). Firms rich in Potential AC are proactive
as it has acquired and assimilated knowledge, thereby firms facing challenges in an
area can conduct more innovative activity and increase its awareness of opportunities
in its environment (Cohen and Levinthal, 1990).

It has been established in the earlier chapters that external triggers in the environment
such as radical innovations, technological shifts, emergence of a dominant design, and
changes in government policy, among others (Zahra and George 2002) can influence
firm’s decision in increasing their AC activities. However, the result shows that firms
that are largely involved in potential and realized AC are more prepared for these
unforeseen circumstances in the business environment. These firms do not wait for
failure on some performance dimension but aggressively seek out new opportunities
to exploit and develop (Cohen and Levinthal, 1990).
Potential and realized AC are critical resources to the firm (Matusik & Hill, 1998) that can create a sustainable competitive advantage for a firm (Zahra and George 2002) in the ever changing environment. This support the results as firms as the ability to use their realized AC activities to increase innovative capabilities of a firm to survive in a dynamic and turbulent environment (Evans & Bosua 2014). Therefore AC becomes an advantage in a highly dynamic and competitive international environment. Developing and managing firms AC can increase acquisition of knowledge which can allow firms to be more innovative and competitive in the international market (Zahra & George, 2002; Cohen & Levinthal, 1990).

As the result as shown, that the business environment can influence firms AC. Potential AC can be formed due to the continuous renewal of firm’s knowledge base and skills necessary to compete in the changing business environment (Zahra and George 2002). Firms that are rich in AC make use this resources and capabilities to create and capitalize on emerging business opportunities (Raff, 2000). These opportunities may lead to first mover advantage, and such firms sustain superior performance (Ferrier, Smith, & Grimm, 1999), responsiveness to the market (Matusik & Hill, 1998), and other strategic benefits.

6.3 Managerial Implications

The study has implications on managers and firms conduction international operations. The importance of organizational AC has been emphasized in previous chapters. Firms that operate in dynamic environment need to intensify their AC activities due to unpredictable changes or unforeseen circumstances that can occur both within and outside the firm (Zahra and George 2002, Techatassanasoontorn et al 2010). It has been mentioned that learning and the need to seek and use new knowledge is deepened in the presence of internal and external triggers (Fosfuri & Tribo 2008). Managers are to engage in activities that can prepare them before negative events such as poor performance, or issues that are external to the firm such as changes in regulations, technology and innovations are presented to the firm. Firm should invest in the
research and development department which increase the potential AC of the organization. Manager can recognize business opportunities through the AC activities, this can influence their decision in entering the international market (Johnson & Vahlne 1977).

However it is not enough to acquire new knowledge within the firm but to disseminate this knowledge all through the firm. Managers are to build on their disseminative capacity which is the ability to effectively communicate knowledge for others in the firm to understand (Mu et al. 2010, Winter 1987). A shift in the thinking of managers and employees may be required when adapting new practices that can affect the organizational culture of the firm (Evans & Bosua 2014). Managers need to create an environment and develop activities such as building social networks between employees; this can promote knowledge sharing within the firm (Rejeb-Khaclouf 2010). This knowledge sharing mechanisms are not limited within the firm; it can also be between the firm and its external relationships such as agents, subsidiaries, suppliers and other external actors. The willingness to share knowledge and build interpersonal relationships within the firm can influence the AC processes of the firm.

The research showed the relationships between potential and realized AC and firm’s level of internationalization. Managers can seize the opportunities they have through their external networks such as suppliers, clients, competitors, universities, business schools, technological institutes, research and development institutions, consultants and personal contacts in other to enrich their potential and realized AC of the firm (Zahra & George 2002) that can aid them in making international commitment decisions. Managers can also create or sponsor programs such as conferences, joint teaching activities, collaborations, research projects, trade fairs and external meetings for themselves and employees to improve the firm’s capacity in understanding and analyzing knowledge and information from other organizations (Szulanski 1996, Zahra & George 2002).

It is important for a firm to be able to convert new knowledge into practical operations. Managers are to ensure that knowledge acquired are utilized in the running of the firm to solve organizational problems, build and implement strategies and make major
decisions. Generating knowledge is important, and the conversion can bring about superior performances for the firm (Evans & Bosua 2014). The results of the knowledge conversion such as creating or improving new products and services, distribution networks, promotions or other marketing activities can increase firm’s performance in the domestic and international market. Knowledge-intensive firms are productive when each employee have the absorptive capacity to learn, innovate and are proactive to possible problems and solutions (Deng et al 2008).

6.4 Theoretical Contributions and Limitations

This study contributes to the absorptive capacity and internationalization studies through subjective measures. Although they are existing research on both phenomenon, the study contributes through relating several aspects that have not been deeply explained previously. It identifies several relationships between constitutes of absorptive capacity and the factors that affect internationalization. First, the study shed more light on the relationships that exist between potential and realized AC and firm’s level of internationalization. Secondly, the study expanded on the relationships between potential and realized AC and firm’s business environment. Thirdly, the study empirically tested all variables with the case study Finnish companies.

Regardless of the contributions, this study faced a number of limitations. A small proportion of companies conducted the questionnaire from the initial population, this may reduce the generalizability of the result to some extent. Another limitation considered is that the case focused on only Finnish companies which can limit extending the result to cover other geographical areas without proper interpretation. However, Finnish companies tend to conduct international business activities early due to the small size of their domestic market. More so globalization has increased the homogenization of business activities. Therefore these findings can be applied to other places outside Finland.

In addition to the above limitations, quantitative studies are generally known to accommodate possible technical errors when performing the research. The results
accuracy is dependent on the respondent’s willingness to respond to the questions correctly and truthfully.

6.5 Suggestions for future research

The paper found relationships between absorptive capacity and internationalization, however future research to study these concepts both individually and in conjunction is suggested. The study focused on two factors of internationalization which are firms’ level of internationalization (international experiences) and business environment, and constitute of absorptive capacity that was used in these research which is the potential and realized AC. Further research and seek the relationship between these constitutes and other factors that affect internationalization such as, factors related to the characteristics of the firm and its innovativeness capacity these are the legal status of the firm, its size and origin, its innovation activities, use of external knowledge, establishment of collaboration with external partners, and barriers to innovation (Fischer and Reuber 2008).

Previous research has given other definitions of absorptive capacity that generate new constitutes and areas to explore. This study focused on potential and realized absorptive capacity, further research can explore other areas such as acquisition, assimilation, transformation and exploitation of external knowledge to find its relationships with firm’s internationalization process. The study only showed the correlations that is the relationship between the two construct. However, further study can focus on the regression analyzes that is the effect of absorptive capacity on internationalization.

Finally, the research used the case study of Finnish companies future research could consider alternative data sources from companies in other geographical areas to examine whether the characteristics of specific location could pose any differences to the results of the respective concepts.
REFERENCES


