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Interaction of Absorptive Capacity and Entrepreneurial Orientation on Firm's Profitability

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ABSTRACT

As the competitiveness on markets increases, the role of innovation grows more important for firm's success and profitability. The importance of innovativeness in organizations is well noted, and companies are paying increasing attention to their innovation processes. However, the innovation processes are complex and difficult to controll. This paper aims to shed light on companies' innovation and product development processes, to help organizations to improve their processes to increase the profitability of their innovations.

Even though numerous scholars have acknowledged the role of entrepreneurial orientation and absorptive capacity on organization's innovation processes, still the existing research on the interplay between the two is limited. This thesis aims to improve our understanding on the effects of interplay between absorptive capacity and entrepreneurial orientation on firm profitability. The thesis examines the existing literature on performance effects of each of the constructs, individually and as interplay, to create a holistic understanding of the phenomenon. This is followed by empirical study on Finnish food industry utilizing mixed method combining cluster analysis and qualitative within-case and cross-case analyses.

The results of the study revealed five common practices and processes among the case companies such as (1) appreciation of rich customer interaction, (2) agile external knowledge processing (3) informal daily dialogues (4) experimental product development (5) cost- and customer value driven opportunity capture.

KEYWORDS: Entrepreneurial orientation; Absorptive capacity; Interplay; Profitability; Innovation

1. INTRODUCTION

The increasing market competition in the global world has brought attention towards the importance of innovation in an organization's success (Lisboa, Skarmeas, & Lages, 2011). The role of entrepreneurial orientation (EO) and absorptive capacity (ACAP) to organization's innovation processes and competitive advantage has been noted by several scholars in the field (Cohen & Levinthal, 1990; Lee, Lee, & Pennings, 2001). Even though the importance of both of the constructs for organization's innovation performance, competitive advantage, and firm performance is well noted in previous studies (Lane, Koka, & Pathak, 2006; Rauch, Wiklund, Lumpkin, & Frese, 2009; Zahra & George, 2002), still the interplay between the two constructs has received only limited attention among scholars. This paper aims to shed light on the interplay between the two constructs, thus contributing to EO-, ACAP-, and innovation literature. Furthermore, the study focuses on offering managerial implications for the managers interested in improving their innovation performance and profitability.

The study was conducted as a mixed method combining quantitative cluster analyses, and qualitative within-case and cross-case analyses among selected case companies. The case companies demonstrate that interplay between high ACAP and moderate EO significantly enhance organizations' profitability, furthermore, the organizations use ACAP to control the risks involved with entrepreneurial routines, practice, and maneuvers. Additionally, the companies with high ACAP and moderate EO value customer interaction above else, and source their innovations from their customers and the end-users of their products. The close relationships between the companies and their customers enable them to test their products in cooperation with their customers to ensure that the final versions of the products are satisfying for all the parties involved in the value chain. The product development among case companies has a strong focus on the profitability of the product, which is assessed frequently during the development process.

The paper is divided in two major chapters, to an introduction and an article. The introduction part goes more in depth with theoretical background, methodological choices and findings of the study than is possible within the limitations of an article. The article is further divided into introduction, theoretical background, data and methodology, results, and discussions and implications.

1.1. THEORETICAL BACKGROUND

1.1.1. Entrepreneurial orientation

The previous literature of the entrepreneurial orientation defines it as firm's strategic posture, which consists of three dimensions, namely: *risk taking*, *innovativeness*, and *proactiveness* (Miller, 1983; Stam & Elfring, 2008). These three dimensions characterize firm's behavior and distinguish it from organizations that are not entrepreneurially oriented. Previous studies have in several occasions proven that EO is connected to firm's above average performance and growth (Covin & Slevin, 1989; Lee et al., 2001; Shepherd & Wiklund, 2005; Stam & Elfring, 2008; Wiklund & Shepherd, 2003; Wiklund, 1999).

EO refers to an organization's management philosophies and strategy making practices that guide its behavior towards entrepreneurial nature. As a strategic posture EO encourages organizations to pursuit towards new opportunities, and therefore towards growth and organizational renewal (Wales, Parida, & Patel, 2013). EO is considered as a decision making style and set of practices that reflects on organizational culture. As an organizational capability the EO can be considered as an antecedent of initiating innovative activities, it binds organizations other resources together facilitating company's ability to deploy these resources advantageously (Kollmann & Stöckmann, 2014).

The current literature considers EO as a dynamic capability, which enables organization dynamically renew and reshape itself via the effects that EO has on organizational learning (Kreiser, 2011; Zahra, Sapienza, & Davidsson, 2006). Teece and Pisano (1994) characterize dynamic capabilities as organizational capabilities rooted in organizational high performance operational routines, which are path dependent and tied to organizational cultures. Due to the culture and path dependency of dynamic capabilities it cannot be copied or acquired from markets, instead it has to be built and achieved within the organization. According to Barney (1991), due to the inimitability of dynamic capabilities they are able to generate sustainable competitive advantage, which again enable the collection of an above industry average economic rents. Dynamic capabilities represent organization's abilities to assess its operational environment and reconfigure itself and its resource base to more effectively operate in such environment (Kreiser, 2011).

The entrepreneurial orientation research stream was commenced by Miller (1983). The paper does not use the term of entrepreneurial orientation, but rather discusses the phenomenon as 'entrepreneurship'. In his paper Miller defined the entrepreneurship as it is still defined in many

studies of entrepreneurial orientation. According to Miller (1983:771) “An entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with "proactive" innovations, beating competitors to the punch.”

Miller's (1983) study utilizes Mintzberg's (1973) typology of three strategy making modes in order to study the correlation between firm’s entrepreneurial orientation and type of firms. The paper does not study the effects of entrepreneurial orientation on firms’ performance, but rather aims to shed light on the phenomenon of entrepreneurial orientation itself by studying the antecedents generating the entrepreneurial behavior in firms. The study (Miller, 1983) reveals that different types of firms have different drivers for entrepreneurial orientation.

According to Miller (1983), in the simple firms the leader’s locus of control was very significantly correlating with the entrepreneurial orientation of the firm. Additionally, the centralization of decision making and scanning had significant correlations with the entrepreneurial orientation of the firm. Miller concluded that simple firms’ entrepreneurial orientation is tied to the personal traits of the entrepreneur or the leader of the firm. Since the simple firms are more influenced by their leaders, the personality of the leader influences strongly the entrepreneurial orientation of the firm (Miller, 1983).

The second type of firms observed by Miller (1983) is the planning firm. In the planning firms the entrepreneurial orientation of the firm is instead highly correlating with explicitness of strategy and with the strategic integration, meaning that the unpredictable innovations are unpalatable for the planning firms. Planning firms are more secure with predetermined entrepreneurial activity, which follows the strategy of the company and can be readily prepared and systemized for. The planning firm’s leader’s locus of control correlates significantly with entrepreneurial orientation of the firm; however this correlation is weaker than in the simple firms (Miller, 1983).

The third type of firm studied by Miller (1983) is the organic firm. These firms are defined by their decentralized decision making, which makes them more adjustable to environmental changes. The organic firms tailor their entrepreneurial orientation by the demand set by their operational environment. Miller revealed that the organic firms’ entrepreneurial orientation strongly correlates with their dynamism and hostility of their operational environment. In highly dynamic and hostile environment these firms adapt strong entrepreneurial orientation in order to meet that requirements set by the environment, consequently in stable and more predictable environment they adapt less entrepreneurial strategic posture. In Miller’s (1983) such behavior

was unique to the organic firms and was not found on simple or planning firms. Due the decentralized decision making in the organic firm's the leader's personality does not affect the entrepreneurial orientation of the firm as it does in simple and planning firms, which have more centralized decision making processes. Additionally, in the organic firms the established strategy tends to guide the firm's decision making and thus making it more resistant to the change, this causes the negative correlation between entrepreneurial orientation and established and well-articulated product-market strategies (Miller, 1983).

Since its publication, Miller's (1983) study on entrepreneurship has been a cornerstone for the entrepreneurial orientation research. Numerous subsequent studies (Cassia & Minola, 2012; Covin & Slevin, 1989, 1990, 1991; Lee et al., 2001; Lumpkin & Dess, 1996, 2001; Rauch et al., 2009; Shepherd & Wiklund, 2005; Stam & Elfring, 2008; Wiklund, 1999) have used Miller's (1983) paper as reference when defining entrepreneurial orientation. The majority of these subsequent studies on entrepreneurial orientation have been focusing on the effects that entrepreneurial orientation has on firm performance, rather than the antecedents of entrepreneurship itself.

Entrepreneurial orientation literature was continued by Covin and Slevin (1989), which sheds light on the effects of organizational structures and strategic postures on the performance of small firms in hostile and benign environments. Covin and Slevin (1989) refer to entrepreneurial orientation as an entrepreneurial strategic posture, which is based on Miller's (1983) three dimensions; risk-taking, innovativeness, and proactiveness. The study reveals that the entrepreneurial orientation contributes to the small firms' financial performance in hostile environment. Yet the study does not claim that the entrepreneurial orientation would be universally superior strategic posture, since it also shows that in benign environment more conservative strategic posture is more beneficial to firms' financial performance (Covin & Slevin, 1989).

Additionally, the study (Covin & Slevin, 1989) reveals that firms' strategic posture has no strong independent effects on the performance of the small firms. Strategic posture's effects on the performance differences of higher- and lower performing firms can be seen as a fit with the environmental hostility, rather than as universal factor affecting to the firms' performance. The study was conducted on small firms with 5 to 500 employees and a life time of at least 5 years, in order to be considered as an established firm, yet the authors suggest that the findings could be true for larger companies as well.

Covin and Slevin continue to study effects of entrepreneurial orientation to firm's financial performance in their next paper (Covin & Slevin, 1990). Instead of using term entrepreneurial orientation they continue describing the phenomenon as entrepreneurial strategic posture. Covin and Slevin (1990) study the effects of entrepreneurial orientation and organizational structures on new venture's financial performance in different industry life cycle stages. The study reveals that the industry life cycle moderates the relationship between the new venture financial performance and entrepreneurial orientation. The study demonstrates that entrepreneurial orientation is strongly related to firm performance in the emerging industries, in the growing industries entrepreneurial orientation has weaker, yet, still positive effect on firms' performance, and in the mature industries the study shows negative correlation between entrepreneurial orientation and firm performance (Covin & Slevin, 1990).

By building from the work of Miller (1983) and Covin and Slevin (1989, 1991) Lumpkin and Dess (1996) introduced the concept of entrepreneurial orientation. The paper makes distinction with the prior entrepreneurship literature and the entrepreneurial orientation by distinguishing EO from entrepreneurship literature by the focus of the research. The entrepreneurial orientation research took a focus of entrepreneurial processes such as methods, practices, and entrepreneurial managerial decision making styles. According to Lumpkin and Dess (1996), the focus differed significantly from the earlier entrepreneurship literature, which focused more basic- and principal entrepreneurial questions such as product-market relationships and resource deployment. The prior entrepreneurship literature equated entrepreneurship with going into business (Lumpkin & Dess, 1996).

The original entrepreneurial strategic posture (Miller, 1983) was reconceptualized by Lumpkin and Dess (1996). The entrepreneurial orientation introduced by Lumpkin and Dess (1996) consists of five dimensions, which were Miller's original dimensions of innovativeness, risk taking, and proactiveness, and additional two dimensions characterized as *autonomy* and *competitive aggressiveness*.

Entrepreneurship is defined by its underlying central idea of new entry, which can be defined as an act of launching a new venture via a business start-up, an established firm, or an inter corporate joint venture (Lumpkin & Dess, 1996). The new entry itself can be entrance to the new or existing markets with new or existing products/services. Lumpkin and Dess (1996) suggest that EO is an antecedent of entrepreneurship, which as processes, practices, and decision-making activities ultimately leads to new entry.

1.1.1.1. Dimensions of entrepreneurial orientation

As mentioned before, the entrepreneurial orientation consists out of three dimensions: innovativeness, risk-taking, and proactiveness (Miller, 1983). This setup of dimensions has been utilized in numerous studies focusing on effects of entrepreneurial (Covin & Slevin, 1989; Jeffrey Covin & Slevin, 1990, 1991; Lee et al., 2001; Naman & Slevin, 1993; Rauch et al., 2009; Shepherd & Wiklund, 2005; Stam & Elfring, 2008; Wiklund & Shepherd, 2011, 2003; Wiklund, 1999). In this chapter of the paper we will take a look what these dimensions consist of and mean more precisely.

1.1.1.1.1. Innovativeness

The dimension of innovativeness in the entrepreneurial orientation refers to firm's tendency to engage in and support creative processes, experimentation, and new idea generation which may result new product, service, or processes (Lumpkin & Dess, 1996). Innovativeness is often connected to creativity, embracing of experimentation, technological leadership, commitment to new ideas, R&D processes, and higher R&D investments (Kollmann & Stöckmann, 2014).

Not all the innovations done by firms are the same degree. Lumpkin and Dess (1996) suggest that innovations vary by the degree of their radicalness. Less radical, incremental innovations, are minor improvements or adjustments in current technologies or processes that may improve existing products or enhance production processes improving the efficiency of these processes. Radical innovations in the other hand are changes that may revolutionize the whole industry, or create a completely new industry, such radical innovations represent clear departures from current practices and technologies (Lumpkin & Dess, 1996). Dewar and Dutton (1986) suggest, the radicalness of an innovation is not a binary question, but rather a continuum between incremental and radical. An innovation is also connected to the time of the innovation, thus an innovation that is considered radical in a certain period of time may not be radical anymore during a later era (Dewar & Dutton, 1986).

Additionally, innovations can be separated into technological innovations and product-market innovations. The technological innovations consist primarily out of product and process innovations, which are nourished by technocrats, R&D, industry knowledge, and technological expertise (Lumpkin & Dess, 1996). Miller and Friesen (1982) suggested that firms with higher percentage of influential technocrats tend to be most innovative. This was empirically proved by Miller (1983) that found a significant connection between the technocratization of organization

and its entrepreneurial orientation, according to the study technocratization is boosting innovativeness of the firms and thus boosting its entrepreneurial orientation.

Innovation is especially essential for smaller and younger firms, which lack the benefits of economies of scale of larger companies and credibility of more established firms (Lee et al., 2001). Without innovation the young firms end up competing head-to-head with larger companies, which often proves to be fatal due the advantages of established firms and liability of newness and smallness of younger firms (Carroll, Freeman, & Hannan, 1983; House, Singh, & Tucker, 1986).

1.1.1.1.2. Risk-taking

The risk-taking is a quality that is continuously used to describe entrepreneurial behaviour in entrepreneurial literature, since the entrepreneurs carry a significant personal financial risk in participating in entrepreneurial behaviour (Lumpkin & Dess, 1996). The dimension of risk-taking in entrepreneurial orientation refers to firm's risk averseness. The firms that score high in risk-taking are willing to undertake risky ventures and make large investments. On the other hand, the firms with low risk-taking tend to avoid risks or large investments and generally refuse to take any risky ventures (Miller, 1983).

The risk-taking can take many forms in firm's behavior. According to Lumpkin and Dess (1996), a firm can be considered strong in the dimension of risk-taking, if it tends to venture to unknown markets, invests large amount of resources to risky projects, and/or borrows heavily in order to seize unsure market opportunities. In order to be considered entrepreneurial a firm does not have to constantly do all of these things, it is rather a common practice and tendency for it to operate in such manner. Furthermore, the firms that characterize strongly in the dimension of risk-taking, do not take high risks just for sake of it, but rather they aim to seize potential market opportunities as they rise, without spending excessive amounts of time in order to analyze the opportunities. By seizing the market opportunities hastily with a limited amount of information, the firm's aim to obtain high returns for their investments (Lumpkin & Dess, 1996). The highly risk-taking firms have a culture of high risk, high reward in their mindset.

The risk-taking is strongly related to firm's financial arrangements and habits, yet it does not necessarily mean that firm's with risky financial arrangements would unconditionally score high in the dimension of risk-taking. Miller (1983) suggests, that firms can score low on risk-taking

variables, despite of having risky financial arrangements such as significant financial leverage. Risk-taking is also involved with market risks and risks in service- and product development.

1.1.1.1.3. Proactiveness

Proactiveness is the third dimension of the entrepreneurial orientation (Miller, 1983). It refers to firm's opportunity seeking behavior and a tendency to act rather as a leader than as a follower on the markets. Proactive firms are constantly looking for new market opportunities and taking early actions to seize these opportunities as first movers (Shepherd & Wiklund, 2005). With their behavior proactive firms are willing and capable to influence trends of consumption or even create new demands and markets that did not exist before they took actions to create such markets (Lumpkin & Dess, 1996).

Acting as a first mover is not necessity for proactive behavior. Lumpkin and Dess (1996) argue that even though the proactive firms do have tendency to act as first movers on the market, it does not mean that firms do not work as first movers could not be proactive. Firms that actively look for new market opportunities and are eager to introduce new products to markets or existing products to new markets can be proactive, even if they do not make the first move. The dimension of proactiveness refers to firm's mindset and culture of doing things, if the firm is actively looking for market opportunities and taking actions to seize these opportunities it can be considered as proactive, even if it does not always act as a first mover to do so. Lumpkin and Dess (1996) continue to discuss the phenomenon of entrepreneurial orientation by arguing that the opposite of proactive behavior is passive, rather than reactive behavior. Reactive behavior can refer to actors in the market, who do not act as first movers, but as fast followers. They are capable of identifying potential markets when their competitors enter such a market, and they have the capabilities required to act as fast follower. The passive behavior on the other hand refers to firms that are not looking for new market opportunities, but rather focus on their current markets and business models in order to generate safer and more predictable revenues. Covin and Slevin (1988) have opposite arguments considering the reactive behavior; they argue that reactive behavior is the opposite of proactive behavior of the firm, and the firms that are following the first movers are not considered proactive.

Entrepreneurial scholars have given varying definitions for proactiveness. Covin's and Slevin's (1988, 1991) definition of proactive behavior differs from the definition given by Lumpkin and Dess (1996). Covin and Slevin (1988, 1991) define proactive behavior as competitive proactive and aggressive actions against industry rivals in order to perform better in the markets, whereas

Lumpkin and Dess (1996) see proactiveness as opportunistic behavior to find and create new markets. Due these differences in typology Lumpkin and Dess (1996) introduced an additional dimension to the entrepreneurial orientation that is called competitive aggressiveness.

1.1.1.1.4. Alternative dimensions

As originally introduced the entrepreneurial orientation consist out of three dimensions that were introduced earlier in this paper; namely innovativeness, risk-taking, and proactiveness (Covin & Slevin, 1988, 1989, 1990, 1991; Miller, 1983). Later Lumpkin and Dess (1996) wrote their paper in order to clarify the concept of entrepreneurial orientation. In their paper they went in depth with the concept of entrepreneurial orientation and defined more precisely each of the dimensions. In addition to original three dimensions Lumpkin and Dess (1996) introduced the dimensions of autonomy and competitive aggressiveness.

The competitive aggressiveness refers to firm's tendency to actively take actions in order to overcome competitors in their industry. Lumpkin and Dess (1996) note that via competitive aggressiveness firms try to overcome liability of newness that affects legitimacy and the reception that firm receives from suppliers, customers, and other competitors. They continue to point out that competitive aggressiveness is vital for new firm's survival and performance, since they cannot compete with more established firms with price or quality. Since the small- or new firms can rarely compete with established firms in traditional competitive methods such as price and quality, they can rely on unconventional tactics in order to beat their competitors (Lumpkin & Dess, 1996). The willingness to utilize unconventional tactics such as differentiation or redefining the products and services is seen as competitive aggressiveness. Firms can be considered competitively aggressive, if they set goals in order to overcome their competition. This can be done by setting aggressive market share goals and making financial sacrifices in form of lower prices and aggressive marketing campaigns in order to reach such goals, additionally, the speed of entry may indicate aggressiveness of the firm, since fast follower strategies are often considered as competitively aggressive methods (Lumpkin & Dess, 1996).

In addition to competitive aggressiveness, Lumpkin and Dess (1996) introduced the dimension of autonomy. Autonomy refers to the capability of individuals or teams to carry out and execute their ideas to the accomplishment. The firms that score highly in it are capable to autonomously pursuing given ideas without bureaucratical- or structural barriers interfering with the process.
Autonomy is connected to new entry. Lumpkin and Dess (1996) argue that with strong and influential managers the companies are able to pursue their ideas and turn ideas into reality. If

the key players in the organization have no freedom to act and proceed with risky ventures, they are not able to act entrepreneurially, and thus reducing the entrepreneurial orientation of the firm. Additionally, Miller (1983) reveals that firms that have managers with high locus of control are more entrepreneurial than their counterparts with lower locus of control. Locus of control can be related to firm's autonomy since high locus of control allows managers to pursue their visions.

This paper refers to the autonomy and the competitive aggressiveness as alternative dimensions, since they are not included in Miller (1983) or Covin and Slevin (1988, 1989, 1990, 1991) articles originally introducing the concept, which scholars now days refer as the entrepreneurial orientation. Lumpkin and Dess (1996) base their arguments considering the additional dimension on earlier entrepreneurial literature, which discus importance of these factors in entrepreneurial operations. Following Lumpkin and Dess (1996), numerous authors have studied the entrepreneurial orientation, but majority of them have not used the five dimensional concept of entrepreneurial orientation, but rather utilized the three dimensional concept of entrepreneurial orientation introduced by Miller (1983) as entrepreneurial strategic posture. Numerous of scholars studying the entrepreneurial orientation have used Miller's (1983) 3 dimensional construct of entrepreneurial orientation based on innovativeness, risk-taking and proactiveness in their work (Anderson & Eshima, 2013; Chen, Li, & Evans, 2012; Covin & Slevin, 1988, 1989, 1990, 1991; Hong, Song, & Yoo, 2013; Lee et al., 2001; Naman & Slevin, 1993; Shepherd & Wiklund, 2005; Stam & Elfring, 2008; Wales et al., 2013; Wiklund & Shepherd, 2003, 2011; Wiklund, 1999). According the assessment of past research done by Rauch et al. (2009) it can be noted that 3 dimensional construct of entrepreneurial orientation is most commonly used by scholars when studying the entrepreneurial orientation.

1.1.1.1.5. Unidimensionality of entrepreneurial orientation

Studies concerning the entrepreneurial orientation can be roughly divided into two segments: another considering the phenomenon as unidimensional, and the other as multidimensional. Out of these two the unidimensional method has been more popularly utilized by scholars in the field (Rauch et al., 2009).

In the unidimensional perspective of the entrepreneurial orientation all the dimensions are combined into one factor, which then is studied as a whole (Rauch et al., 2009). Combining all the dimensions together means that each of them is equally important effects towards firms' performance. On the other hand the multidimensional perspective of the entrepreneurial

orientation does not combine the separate dimensions into one factor, but rather assesses effects of each individual dimension separately towards firms' performance.

1.1.1.2. Entrepreneurial orientation and firm performance

Entrepreneurial literature proposes that EO leads to superior firm performance (Rauch et al., 2009). EO's effects on performance may be larger profits, faster growth rate, or enhanced non-financial metrics such as innovation performance or goal achievement (Kollmann & Stöckmann, 2014).

The theory of entrepreneurial orientation has most popularly used in order to explain the differences in firms' performances. Continuing from the work of Covin and Slevin (1991), Wiklund (1999) studies the sustainability of entrepreneurial orientation-performance relationship. Some authors, including Covin and Slevin (1991), have pointed out the lack of empirical evidence in supporting the EO-performance relationship. Covin and Slevin (1989) had shown the EO-performance relationship for small firms operating in hostile environment. Covin and Slevin (1990) continued shedding light on EO-performance relationship by reflecting it towards new ventures and industry life cycles. According to their study, the EO-performance relationship is strongest for new ventures in emerging industries. Additionally, they found out that new ventures had weaker, but still existent EO-performance relationship in growing industries. No significant relationship was found between EO and performance in mature industries (Covin & Slevin, 1990). Wiklund and Shepherd (2003) found significant correlation between EO and firm performance in small and medium-sized businesses. Entrepreneurially oriented firms have ability to use their resources in order to identify and exploit opportunities faster than their competitors that are not entrepreneurially oriented (Wiklund & Shepherd, 2003).

EO-performance relationship strengthens during the time. Wiklund (1999) reveals that EO is associated with performance of the small firms not only in short-term but also in a longer timeframe. The study shows, that the effects of entrepreneurial orientation increase during the time. Findings of Wiklund (1999) are valuable especially for entrepreneurial community, since changing firm's strategic posture can be time consuming and require valuable resources. Managers might be struggling with the decision whether they should implement entrepreneurial strategies into their operations, since they cannot know if such a transition would be profitable. Findings of Wiklund (1999) give empirical proof that investments into entrepreneurial strategic postures are beneficial for the firm over the extended period of time. Additionally, the study revealed that availability of the financial capital correlate with firm performance more than EO.

The financial capital available offers firm buffer against unexpected events and as well provides the firm with slack resources that can be used in order to facilitate change and to perform desired activities. Firms without slack resources are unable to perform desired activities and thus are performing worse than their counterparts with available financial capital (Wiklund, 1999).

EO-performance relationship might vary depending on the firm age and industry type. According to Lee et al. (2001) EO has only marginally significant relationship with performance, unlike previous literature would have given to anticipate. Authors argue that the weak correlation between EO and performance in their sample might occur due to start-up and technology intensity of their sample. They suggest that EO does not appear as beneficial for young start-ups in technological industries as it does for other ventures, since these firms might take 1-2 years to develop and deliver the products to customers in order to complete sales. When a firm is not old enough to generate sales EO does not appear beneficial towards firm's performance. Due to these arguments, Lee et al. (2001) suggests that EO might take longer than 2 years to significantly enhance firms' performance. This suggests that EO might not be as universally beneficial, as some previous studies would have suggested.

EO enhances firm performance due to effect it has on product and business model lifecycles (Wiklund & Shepherd, 2003). EO is proposed shorten firms' product and business model lifecycles, and therefore encouraging them into seeking new business opportunities. Innovative companies creating new products, technologies and business models can generate significant financial performance (Wiklund & Shepherd, 2003). Such entrepreneurial strategies may seem risky in the short term but profitable in the long run.

EO's effects on firm performance can be explained by resource-based view (Barney, 1991). Wiklund and Shepherd (2003) reflect EO towards resource-based view and consider it as resource capable of generating sustainable competitive advantage to the firms possessing such a resource. EO fulfils the requirements of VRIO, meaning that is not only generating competitive advantage for the organization but rather competitive advantage that cannot be easily imitated by the competitors (Barney, 1991; Wiklund & Shepherd, 2003).

EO-performance relationship is affected by environmental dynamism and access to financial capital. Shepherd and Wiklund (2005) studied moderating effects of environmental dynamism and access to financial capital in EO-performance relationship. The results of the study found significant correlation between EO and firm performance supporting the existing body of EO literature, but they did not show moderator effects of access to financial capital or environmental

dynamism. Nevertheless, the study revealed that EO was most effective in stable environment when the access to financial capital was low. EO was least effective in dynamic environment for the firms with high access to financial capital. Lowest performing firms in the sample were the ones operating in stable environment with low access to financial capital and low EO. (Shepherd & Wiklund, 2005)

The findings made by Shepherd and Wiklund (2005) suggest that EO is not only enhancing firms' performance, but it can also be utilized as a mechanism in order to overcome financial and environmental constrains. The findings suggest that EO would be universally effective in enhancing the firm performance, but the effectiveness of relationship is dependent on EO's fit in comparison to operational environment and firm's financial resources. In other words, utilization of EO is more crucial in stable environment than in dynamic one and when firm has limited access to financial resources rather than when it has high access to financial capital.

EO has varying effects on firm performance depending on the firm's network centrality and bridging ties. Stam and Elfring (2008) studied the moderating roles of intra- and extraindustry social capital on EO-performance relationship. The results of their study did not show direct significant relationship between EO and performance. Yet, the study showed that EO has significantly positive relationship with performance in existence of high network centrality and high bridging ties, the relationship was neutral in scenario of low network centrality and high bridging ties and marginally significantly negative in case of high network centrality and low bridging ties, and EO did not affect performance of companies with low network centrality and low bridging ties (Stam & Elfring, 2008). In other words, the study shows that EO has stronger relationship with performance in existence of higher levels social capital in comparison to lower levels of social. Stam and Elfring (2008) suggest that the failure to show direct EO-performance relations ship is due to the innovative nature of the industry and the fact that all the firms in the sample showed relatively strong entrepreneurial orientation, thus making it difficult for the study to display differences in EO with companies with weaker performance.

Studies on EO-performance relationship have shown differing results on usefulness of EO. Rauch et al. (2009) conducted a meta-analysis on EO-performance relationship observing a large research stream on the subject. The study noted that in numerous studies conducted on entrepreneurial orientation scholars have come with differing results. Some studies (Hult, Snow, & Kandemir, 2003) have showed that firms with strong EO perform better than their counterparts with lower EO, yet other studies (Lumpkin & Dess, 2001) have resulted lower

correlations between the factors, and some (Covin, Slevin, & Schultz, 1994) were unable statistically significantly to show correlation between the factors.

Based on their analysis, Rauch et al. (2009) suggests that all three of Miller's (1983) dimensions have equal importance in explaining firm performance. Thus the paper suggests that the future studies on the subject to use unidimensional approach of EO to explain differences in performance. Additionally, the paper shows that the research does not suffer from carefully modifying the Covin's and Slevin's (1989) scale. Furthermore, Rauch et al. (2009) point out that the magnitude of variation in EO-performance relationships could not be explained with only sampling error. The study found three possible moderators for the relationship between EO and performance. The possible moderators are national culture, business size, and technological intensity of the industry. Rauch et al. (2009) show that popular used methods of measurement were perceived financial performance, achieved financial performance, and perceived non-financial performance. According to their findings, the majority of the studies show strong positive relationship between EO and both achieved- and perceived financial performance. Also a strong, yet insignificantly weaker, relationship was found between EO and non-financial performance.

EO research has several common limitations for EO studies. None of the studies in Rauch et al.'s (2009) sample examined survival bias, yet they only focused on surviving firms. Since the EO is related to higher risk taking, it is possible that it leads to higher possibility of failure. If this is the case, then it is possible that EO does not increase performance, but instead variance in performance. Additionally, Rauch et al. (2009) reveal that the studies did not address the possible causality of the relationship between EO and performance. It is possible that better performance affects positively EO via increased slack resources available for the company. Higher slack resources work as buffer against unexpected unfortunate incidents, which allow riskier initiatives (Rauch et al., 2009).

Some scholars suggest that EO does not enhance firm performance, but instead it would increase the variance of the performance (Wiklund & Shepherd, 2011). The previous EO literature has mostly approached EO-as-Advantage, as it is referred by subsequent literature, Wiklund and Shepherd (2011) observed the phenomenon as EO-as-Experimentation. This perspective suggests that EO does not unquestionably enhance the performance of the organization adopting it, but rather increases the variance of performance instead of just correlating with the mean of performance. Additionally, the study also showed increased mean of performance supporting the previous literature of EO-as-Advantage. Wiklund and Shepherd (2011) suggest that EO-

performance relationship is not as simple as previous literature has proposed. According to the previous literature around the phenomenon, companies can achieve increased performance by adopting entrepreneurial orientation for their organization. Wiklund and Shepherd (2011) suggest that this might not unquestionably be the case and by adopting EO into their organization the companies expose themselves for lowered change of survival.

The study by Wiklund and Shepherd (2011) proposes that the EO-as-Experimentation occurs, because the research done on phenomenon of EO is exposed to survival bias. The data samples that the research is based on include only existing organizations, which automatically eliminates all the organizations that have failed to survive. This visualized in Figure 1. In the figure the Sample A demonstrates EO-as-Experimentation and the Sample B EO-as-Advantage.

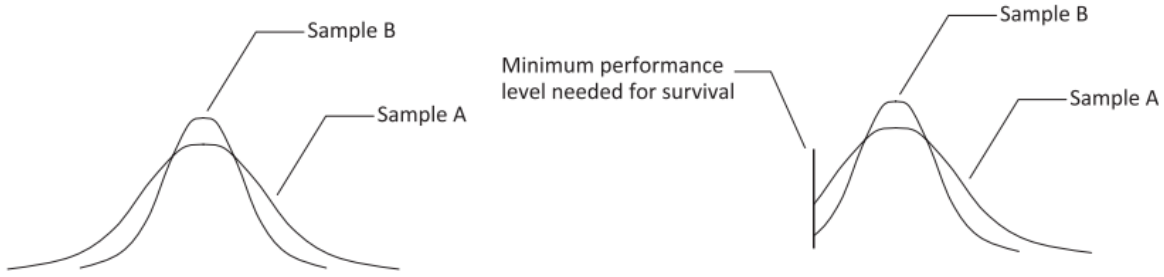

Figure 1. Effects of survivor bias: EO-as-Experimentation compared to EO-as-Advantage (Wiklund & Shepherd 2011).

Since the hypotheses concerning the EO-as-Experimentation are supported by the study (Wiklund & Shepherd 2011), the EO may not be as simple phenomenon as the previous literature has suggested. Instead of being simple performance enhancing phenomenon, the EO may instead be strategic choice to be made within the organization, whether to enhance the organizations performance with an increased risk of bankruptcy (Wiklund & Shepherd 2011).

In addition to its effects on performance EO also affects organizations operations. Chen et al. (2012) studied the effects of entrepreneurial orientation and interaction orientation to organizational performance. Their study reveals that entrepreneurial orientation significantly enhances organizations exploratory and exploitative capabilities. The exploitative capabilities further on increase organizations' product development speed, product innovativeness, financial performance, and customer relationship performance. The exploratory capabilities on the other

hand enhance organizations' product development speed and product innovativeness, however, the exploratory capabilities had no significant effect on financial performance or customer relationship performance (Chen et al., 2012).

EO's effects on firm growth differ depending on the age of the firm and the intangible resources available for it. Anderson and Eshima (2013) studied the effects of firm age and intangible resources on the relationship between EO and firm growth. The study revealed that EO has greater effect on firm growth on young firms and the effect is not significant in older firms. Additionally, the study shows that effects of EO on firm growth are greater for organizations with high intangible resource than for organizations low intangible resources. Therefore, the study (Anderson & Eshima, 2013) shows three-way interaction between EO, firm age, and intangible resources, in which the growth of young companies with high intangible resources benefits most of from EO when comparing to older companies with lower intangible resources.

In addition to the firm's financial performance and growth, EO also influences new product success. Hong et al. (2013) revealed that EO has significantly positive effect on intellectual property management and new product development processes. Intellectual property management processes and new product development processes both have significant correlation with product meaningfulness and product novelty. Therefore, the study (Hong et al., 2013) shows that positive correlation between EO and new product success.

1.1.1.3. Proactiveness - performance

From the perspective of the firm's growth, it is necessary to managers to act entrepreneurially by providing the vision and imagination required for opportunist expansions (Penrose, 1959). Covin and Slevin (1990) suggests that organizations proactive strategic posture that aims into building market share is promoting its success. Several studies (Hughes & Morgan, 2007; Lee et al., 2001; Lumpkin & Dess, 1996, 2001; Wiklund & Shepherd, 2003; Wiklund, 1999; Zahra & Covin, 1995) point out the value of first mover advantage that is associated with proactive firm behavior. The first movers are able to gain a head start before their competition when presenting new products or services, and thus generate brand recognition and generate notable profits before other actors join the market (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). By proactive behavior organizations are can achieve success in new markets even without first mover advantage. Proactive behavior does not necessarily require organization to operate as a first mover, fast followers in the market can achieve competitive advantage in comparison to slower followers. According to Lumpkin and Dess (2001), by proactive behavior organizations are able

to foresee future market demands, or additionally take actions in order to shape the future demand or the operational environment to be more suiting for the organization itself. Environment can be changed by introducing new products or technologies that revolutionize the markets and thus significantly change customers' behavior (Kollmann & Stöckmann, 2014; Miller & Friesen, 1978). Several studies (Lumpkin & Dess, 2001; Miller & Friesen, 1983; Miller, 1983) have found strong positive relationship between firm performance and proactiveness.

1.1.1.4. Innovativeness - performance

Schumpeter (1934) was one of the first authors to emphasize the importance of innovation in firm's entrepreneurial processes. He describes innovative processes as a part of "creative destruction", according which economic wealth and growth are generated by disrupting existing market structures by introducing new offerings that shift market resources away from existing organizations. Schumpeter (1934) argues that the creative destruction is a driving for that causes new firms to grow and outdo their more mature competitors.

Innovation plays an important role in industry life cycles and firm success. According to the findings of Covin and Slevin (1990), innovativeness plays important role especially in emerging and growing industries. When organization matures, its need for innovativeness is slowly being replaced with need for efficiency. Innovativeness can still generate innovations that revolutionize an industry, yet such phenomenon is not as common. Covin and Slevin (1990) emphasize the importance of product innovations in emerging and growing industries to promote firm success. Wiklund (1999) with innovativeness organizations can stay ahead of competitors, gaining it a competitive advantage that can lead to improved financial performance. Lee et al. (2001) clarify that without innovation new ventures would have to compete head-to-head with more mature competitors. In traditional competition against more established competitors is likely to lead to failure, since the new ventures often have fewer resources and are affected by liability of newness (Carroll, Freeman, & Hannan, 1983; House, Singh, & Tucker, 1986), when on the other hand more established competitors often lack such weaknesses and are able to rely on economies of scale (Lee et al., 2001). Wiklund and Shepherd (2003) suggests that innovative companies that create new offerings and technologies are able to achieve enhanced financial performance. According to the study on new venture growth by Brüderl and Preisendörfer (2000), the innovation strategy was the most important predictor for firm growth. The authors also point out that even though innovation is a significant predictor of firm growth, it does not guarantee its success.

1.1.1.5. Risk-taking – Performance

In emerging industries a firm's willingness to operate under uncertainty and take risky maneuvers can enhance its for success (Covin & Slevin, 1990). According to Lee et al., (2001) organizations that make significant resource commitments can possibly achieve high returns for their investments. Additionally, any investments on innovations are risky and its outcomes are uncertain until the innovation is ready to be commercialized (Lee et al., 2001). According to Lumpkin and Dess (1996) the relationship between risk taking and performance is equivocal. According to Wiklund and Shepherd (2003) riskier strategies may lead to higher performance in long term. Kollmann and Stöckmann (2014) argue that risk-taking indicates negative relationship with exploitation activities. They suggest that lower risk-taking may prevent organizations from eliminating weaknesses in their existing technologies, products, and services.

1.1.2. Absorptive capacity

Absorptive capacity refers to organizations ability to valuate, assimilate, and apply knowledge (Cohen & Levinthal, 1990). Furthermore, ACAP has been defined as organization's processes and routines that allow organization to acquire, assimilate, transform, and exploit knowledge to produce dynamic capability (Zahra & George, 2002). Zahra and George (2002) propose ACAP as dynamic capability, which suggests that according to previous studies (Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997; Winter, 2003) it can generate sustainable competitive advantage, and thus able to generate above industry average economic rents (Barney, 1991). Dynamic capabilities allow organizations to reconfigure their resource bases and adapt the changing operational environment, which allows enables them to change and generates competitive advantage.

Absorptive capacity as a theory originates from Cohen and Levinthal (1990). The original construct of ACAP consisted of three dimensions acquisition, assimilation, and exploitation. The ACAP construct was later further developed by Zahra and George (2002) who introduced fourth dimension of transformation and divided the ACAP in to Potential Absorptive Capacity (PACAP) and Realized Absorptive Capacity (RACAP). PACAP refers to knowledge that organization has absorbed, but has not yet utilized. It consists of dimensions of acquisition and assimilation. RACAP on the other hand consists of transformation and exploitation, and refers to the part of PACAP that organization is able to actually utilize and exploit to the commercial ends (Zahra & George, 2002).

The first dimension of ACAP refers to organization's capability to identify and obtain external knowledge that is connected to its current operations (Zahra & George, 2002). Organization's acquisition processes and practices determine how fast and effectively it is capable of acquiring external knowledge form various sources (Todorova & Durisin, 2007). Organization's resource investments on knowledge acquisition can affect the intensity, speed, and direction of its ACAP (Zahra & George, 2002).

The second dimension of ACAP is assimilation. This dimension refers to organization's capability to interpret, understand, and internalize to the organization the information acquired from various sources throughout the organization (Engelen et al., 2014). Due to the lack of assimilation capabilities knowledge outside organization's field of operations may be overlooked, because it is not thoroughly comprehended. If the knowledge acquired differs significantly of the prior knowledge typically processed in the organization, it can delay the comprehension of the knowledge, since the knowledge is often context specific (Zahra & George, 2002). Furthermore, due to the context specificity of the knowledge, it is hard for outsiders or competitors to replicate or understand it (Zahra & George, 2002).

The third dimension of ACAP refers to organization's ability to utilize assimilated knowledge to refine and develop its routines, processes, and practices that facilitate combining of the recently acquired and assimilated knowledge to prior existing knowledge base (Zahra & George, 2002). The character of knowledge changes in the transformation process. Previous knowledge may be deleted or existing knowledge merged with recent acquisitions. Organizations with higher transformation abilities are capable of recognizing compatibility and merge pieces of knowledge that initially seem incompatible (Zahra & George, 2002).

By combining and transforming knowledge from various independent sources, the organization may identify new business opportunities, as change the way the organization sees itself in its operational environment (Zahra & George, 2002). Furthermore, Zahra and George (2002) suggest that by enhancing the organizations self-image in the operational environment, it can create new competence or help it to refine its strategy. The dimension of transformation plays an important role in organizational transformation and strategic change (Zahra & George, 2002).

The fourth and last dimension of ACAP refers to organization's ability to apply transformed knowledge into commercial ends (Cohen & Levinthal, 1990). Exploitation ability consists of the routines and practices that allow organization to utilize their knowledge-base, but some organizations may be able to exploit their knowledge-base without systematic processes or

routines, yet, the existence of routines, systems, and mechanics facilitate organization's ability to exploit knowledge for over extended periods of time (Zahra & George, 2002). Exploitation ability reflects on organization's capability to transform knowledge into business operations. Outcomes of exploitation activities are new products, systems, processes, or organizational forms and by exploitation organizations launch ventures to capture market share from other actors in the markets (Zahra & George, 2002).

1.1.2.1. Absorptive capacity and firm performance

ACAP has been claimed to increase firm's proactiveness, diversification, innovations, competitive advantage, and finally performance (Cohen & Levinthal, 1990; Lane, Koka, & Pathak, 2006; Tsai, 2001; Zahra & George, 2002).

ACAP is a dynamic capability that is capable of enhancing firm performance. The international joint ventures are able to achieve higher performance by acquiring external knowledge and applying it to commercial ends Lane et al. (2001). Zahra and George (2002) and Engelen et al. (2014) present ACAP as a dynamic capability, which is potentially capable of generating and sustaining competitive advantage for the organization, and thus enhancing firm performance. The differences in resources and capabilities can explain the organizational intraindustry performance variations. Since ACAP is valuable, rare, inimitable, and non-substitutable, according to Barney (1991) such capability can generate sustainable competitive advantage.

ACAP can be divided into two major parts, namely PACAP and RACAP, these two complementary parts are both individually insufficient, but yet necessary (Zahra & George, 2002). Ether of two parts is individually unable to enhance the performance of an organization, since the RACAP transforms PACAP into performance (Jansen, Van Den Bosch, & Volberda, 2005). Organization's RACAP cannot commercialize ideas and opportunities, unless this knowledge has already been acquired and assimilated by the organizations PACAP routines, and PACAP on the other hand does not individually generate performance for the organization at all, but it is necessary component of ACAP (Jansen et al., 2005; Zahra & George, 2002).

It is possible for organization to have too much ACAP (Jansen et al., 2005; Volberda, Foss, & Lyles, 2010). Due to the fact that some costs are involved with PACAP routines, it is possible for organization to have too high ACAP, especially PACAP for its own benefits. If the organization has strong PACAP, but is lacking RACAP routines, it may pay costs for ACAP without receiving financial performance benefits from it (Jansen et al., 2005). Vice versa the

organizations investing heavily on RACAP routines but lacking sufficient PACAP may generate profits for short term, but fall into competence trap in long term (Jansen et al., 2005). In competency trap the organization exploits same ideas and creates routines around old knowledge, without experimenting with new ideas, since the previous exploits have been considered as profitable (Levitt & March, 1988). This retains the organization from investing into new ideas that are potentially better than the previous one. Operating this manner for extended periods of time can cripple organizational development. Lane et al. (2006) argue that it is critical for organization's success and survival to maintain and develop their absorptive capacity to reinforce and refocus their knowledge based resource.

RACAP is the primary source of profits in ACAP (Zahra & George, 2002). Organizations can enhance their performance by achieving or sustaining high efficiency factor. PACAP plays an important role in ACAP process, but without RACAP it is unable improve organizations performance, yet with organization needs PACAP in order to leverage on it with RACAP routines. Volberda et al. (2010) states that that ACAP is strongly connected to enhanced learning, innovation, and firm performance. Additionally, the empirical study by Lane et al. (2001) shows positive connection between recognition and assimilation of acquired knowledge and utilization has positive impact on firm performance.

The organizations are more likely to focus on exploring areas that they already have past success in (Zahra & George, 2002). The path dependency of ACAP and organizations' past experiences steer the locus of their R&D processes towards the exploring areas that they already have past experiences in. According to Zahra and George (2002) study, the past experiences are tightly connected to organizational memory, which again guides development and performance of new products and services.

PACAP's effects on firm performance vary from rest of the ACAP. According to Lane et al. (2001) the dimension of acquisition does not by itself influence on organizational performance, yet organizations are unable to exploit knowledge that has not been acquired. Therefore, acquisition affects organization's performance indirectly through other dimensions, which would be unable to function properly without active acquisition of knowledge.

Even though the organizations acquisition routines do not directly affect its performance, they still have major effects on the shape that the ACAP takes in the organization. The acquisition routines can affect organization's ACAP by their intensity, speed, and direction. According to Zahra and George (2002), the intensity and speed of routines determine how fast organization is

able to build required capabilities. Naturally, there is a limit to the speed that firm can effectively achieve, since the learning cycles can effectively be shortened only until certain point (Zahra & George, 2002). Direction of organization's knowledge acquisition routines can determine the path that the organization is following with the accumulated external knowledge, thus also determining the direction of future exploitation routines (Zahra & George, 2002).

Collective learning helps individuals and groups, within organizations, better assess implementation of organizational tasks. According to Zollo and Winter (2002), the collective learning occurs when individuals discuss and exchange opinions, beliefs, and individual experiences, challenge each other's perspectives and present constructive criticism. Organizations are able to improve their competences by increasing their understanding of causal mechanisms between actions required for accomplishing specific tasks and performance outcomes that it produces (Zollo & Winter, 2002). These deliberate collective learning efforts can enhance the organization's awareness of performance implications of their actions (Zollo & Winter, 2002). Volberda et al. (2010) suggest that PACAP facilitates organizations resource reconfiguration flexibility and precise timing of knowledge deployments with decreased costs that can help organization in achieving sustainable absorptive capacity. Furthermore, Volberda et al. (2010) argue that organizations operating in dynamic environment can achieve and sustain competitive advantage by acquiring high PACAP. They suggest that PACAP provides organizations with various strategic advantages. With high PACAP an organization can achieve better flexibility in resource reconfigurations and have lower costs and more effective timing in their knowledge deployment processes.

Some scholars have argued that assimilation routines do not generate profits, but rather they generate costs. They are mandatory evil of ACAP processes and thereby by reducing the costs of the assimilation and transformation processes the companies can enhance the cost-benefit relationship of ACAP Wales et al. (2013).

In exploitation processes the organizations use the acquired knowledge to create new competences and routines. These routines are aimed and deployed to enhance existing and new initiatives within an organization (Zahra & George, 2002). Organizations lacking exploitative capabilities are unable to translate their acquired knowledge into new products, services, and processes (Todorova & Durisin, 2007). Berghman, Matthyssens, Streukens, and Vandenbempt (2013) hypothesize that deliberate learning mechanisms for exploitation are positively related to firms' strategic innovation capabilities.

Organization's RACAP enhances its performance by incorporating acquired and assimilated knowledge into organization's operations and routines, additionally, organizations high RACAP to PACAP ratio leads to enhanced future performance of the organization (Zahra & George, 2002). Jansen et al. (2005) suggests that balance between PACAP and RACAP leads to superior performance.

1.1.3. Interplay between entrepreneurial orientation and absorptive capacity

EO increases the alertness for new market opportunities, willingness to innovate new products and services, and tendency to pursuit risky opportunities (Kollmann & Stöckmann, 2014; Lumpkin & Dess, 1996). According to Zahra and George (2002), high ACAP facilitates the increased aspiration to recognize emerging market opportunities through efficient market knowledge acquisition and assimilation capacity. Similarly when transforming the recognized opportunities into new products and services, the firm benefit from increased emphasis on innovating new products and services, but also high level of knowledge transformation and exploitation capacity ensuring the efficient utilization of the newly acquired knowledge and accumulated existing knowledge base.

ACAP as dynamic capability is especially relevant for EO (Engelen, Kube, Schmidt, & Flatten, 2014). Entrepreneurially oriented organizations operate under significant uncertainty, in which crucial knowledge and information can be missing. Engelen et al. (2014) argue that the major complication in effectively and efficiently applying entrepreneurial activities is the lack of knowledge and facing uncertain scenarios. ACAP refers to organizations ability to obtain and exploit knowledge to commercial ends from their operational environment, that ACAP facilitates EO-performance relationship (Engelen et al., 2014).

Entrepreneurial organizations face increased amount of opportunities, and thus have better change of encountering high-quality opportunities that have business potential (Engelen et al., 2014). Furthermore, they argue that since according to Cohen and Levinthal (1990), the organizations evaluate acquired knowledge and opportunities based on their existing knowledge-base, so an organization's ACAP plays an important role in assimilating and interpreting the acquired knowledge and drawing the best opportunities suiting for the organization in question from all the encountered opportunities (Engelen et al., 2014). Covin and Slevin (1988) argue that high organizational information processing capabilities are necessities for successful innovations.

Entrepreneurial organizations lacking ACAP are likely to encounter fewer opportunities and are unable to assess them properly, due the fact that they have insufficient knowledge-base from their prior experiences. Engelen et al. (2014) suggest that this inhibits the EO-performance relation, furthermore, they argue that organization with lacking ACAP the costs of performing innovative activities are more likely to be higher, due to the lack of prior experience and lack of knowledge-bases. Covin and Slevin (1988) argue that entrepreneurial organizations require high information processing capabilities to support innovative processes.

Organizations can utilize ACAP to reduce the risk of entrepreneurial activities. According to Engelen et al. (2014), with ACAP the organizations are able to acquire critical knowledge concerning their entrepreneurial activities and utilize the information to assess the risks associated with such activities on rational bases. Furthermore, interpreting information and knowledge on the risks helps organizations to minimize and manage them. An organization lacking ACAP routines such as strong communication and co-operation routines may face communication barriers and conflicts (Engelen et al., 2014). Vice versa, strong communication and co-operation routines help organizations to share acquired knowledge effectively throughout the organization. The study (Engelen et al., 2014) suggests that the dissemination of knowledge around the organization can provide the organization with diverse perspectives on the opportunities assessed, and even possibly add value to the opportunity. On the other hand, the lack of communication may lead to failure to assess the risks associated with certain activities, furthermore, overestimation of the risk. Due to the over assessment of the risk, the organization may lose the motivation to pursue such entrepreneurial activities, thus restricting EO of the organization (Engelen et al., 2014).

Proactiveness and innovativeness can help organizations to achieve first-mover advantages, via which it can achieve temporary competitive advantages and high returns until the competition catches up with it (Lumpkin & Dess, 1996, 2001). Engelen et al. (2014) suggest that by adopting ACAP routines, the organizations can empower their first-mover activities and are more likely to achieve first-mover advantages with flexibility swiftness contributed by ACAP. By combining EO and ACAP routines the organizations can more effectively exploit brief market opportunities like first-mover advantages (Engelen et al., 2014). Lack of ACAP in entrepreneurial organization can cause failure in recognizing most potential opportunities, and thus limit its performance (Covin, Green, & Slevin, 2006; Engelen et al., 2014; Zahra & George, 2002).

ACAP facilitates and accelerates entrepreneurial activities of an organization. Engelen et al. (2014) argue that with ACAP routines the organizations are able to rapidly acquire and interpret

market information into new product or service offerings. Additionally, they suggest that ACAP helps organizations to gather information on existing offerings and utilize that data in order to improve them by identifying and correcting defective features. ACAP routines also facilitate organizations' trial-and-error processes. Proactive and innovative processes may cause incomplete and failed product or services, which then are improved by learning from failures and trial-and-error processes, furthermore, with ACAP routines the organizations are able to more effectively fixing the errors, thus enhancing their EO-performance relationship (Engelen et al., 2014).

High ACAP enhances the entrepreneurial organization's ability to recognize quickly, when its innovative offerings proactively delivered to the markets do not fit customer requirements (Engelen et al., 2014). By being able to early on identify flaws in their new offerings, the organizations are capable to make required improvements for the products in order to make them more appealing for their customers (Engelen et al., 2014). Innovative and proactive products are often not perfect with the first try, but they can be improved by further updates following the release. Since the new entrepreneurial product offerings are associated with imperfection, the entrepreneurial organizations can enhance their performance by adapting ACAP routines and increasing the degree of their ACAP (Engelen et al., 2014). By regularly improving new offerings based on acquired knowledge, the organizations do not only enhance their products but due the path dependency of ACAP, they also enhance their capabilities in making rapid corrections to their products and learning by trial-and-error processes (Zahra & George, 2002). Thus, implementing ACAP routines to EO organization can enhance the future entrepreneurial activities of the organization, therefore facilitating EO-performance relationship.

EO allows organizations to utilize their knowledge-based resources more thoroughly to exploit new market opportunities, in the process enhancing their firm performance (Wiklund & Shepherd, 2003). Wales et al (2013) argue that EO enhances organization's efforts to transform their absorbed knowledge into new resource bundles that create new customer value. Entrepreneurial organizations have tendency to use creativity in creating resource bundles and they seek maximum returns for their resources. Proactive organizations are more responsive to knowledge acquired from their external environment. Thus, the entrepreneurial organizations improve their performance by effectively utilizing their knowledge-based resources. Additionally, Wales et al. (2013) show, that EO moderates the curvilinear relationship between ACAP and organization's financial performance by reducing the decline of financial returns. They suggest that this is because EO facilitates the commercialization of knowledge and its critical exploitation.

EO's benefits for organization are connected to the learning capabilities it possesses. Hughes, Hughes, and Morgan (2007) show that organizations that exhibit weak exploitative learning benefit more from EO than the organizations with strong exploitative learning. Sirén et al. (2012) suggests that organizations limited learning capacities cause exploitative learning initiatives. The organizations excessively engaging in exploitative processes without investing in exploratory process expose themselves for a risk of an exploitation trap, which obstructs their learning capabilities. According Hughes et al. (200) and Siren et al. (2012), by obstructing their learning capabilities the organizations endanger their long term competitiveness, due to their reduced knowledge acquisition. The study shows that exploitation strategies moderate negatively the exploration and strategic learning relationship.

ACAP and knowledge-based resources facilitate EO's effects on firm's financial performance. Sciascia, D'Oria, Bruni, and Larrañeta (2014) found that PACAP and RACAP both positively moderate the EO-performance relationship in low- and medium tech industries. The study argues that EO becomes effective only, if organizations acquisition, assimilation, transformation, and exploitation routines are effective enough. EO is dependent on external knowledge on enhancing financial performance of the organization. Innovative, proactive and risk-taking practices can be unproductive if the organization is unable to absorb knowledge from its operational environment (Sciascia et al., 2014). According to Kreiser (2011) EO has direct impact to knowledge-creation routines of the organization, and that EO is antecedent of knowledge acquisition, assimilation, and interpretation. Li, Huang, and Tsai (2009) show, that EO has positive effect on organization's performance, furthermore, the knowledge-creation acts as a mediator through which the EO affects organization's performance. Kreiser (2011) argues that EO facilitates organizations learning from its environment and creates various organizational learning outcomes. Through EO organizations can achieve learning outcomes enhance knowledge-creation, competency development, and organizational performance. Additionally, Kreiser (2011) suggests that individual dimensions EO can have differing unique effects on EO-learning relationship.

Interplay between proactiveness and acquisition enhances organizations access to new opportunities (Engelen et al., 2014; Patel, Kohtamäki, Parida, & Wincent, 2014), enhances its capability to efficiently identify profitable customer segments (Engelen et al., 2014), facilitates organizations responsiveness to new knowledge (Wales et al., 2013), and strengthens organizations acquisition routines (Wang, 2008). Together proactiveness and assimilation improve organization's ability to recognize the value of their acquired knowledge (Engelen et al., 2014; Patel et al., 2014) and the pursuit of entrepreneurial opportunities arising from the

knowledge (Sciascia et al., 2014). Transformation combined with proactiveness enables combination of underutilized knowledge with the new acquired knowledge (Engelen et al., 2014), enables organization's rapid adjustments, facilitates internal learning, and strengthens the anticipation of market changes (Patel et al., 2014). Acquisition and exploitation allow organizations to take advantages of first mover advantages before their competition, and enables them to adapt into rapidly changing environment (Engelen et al., 2014), thus finding market opportunities quickly (Wales et al., 2013).

Innovativeness can create new knowledge (Hughes et al., 2007). Acquisition from multiple sources enhances organizations innovativeness (Engelen et al., 2014; Patel et al., 2014), increased market awareness enhances new product innovativeness (Engelen et al., 2014), and moderate EO improves organizations tendency to acquire knowledge from external sources (Zhao, Li, Lee, & Chen, 2011). By combining EO and assimilation the organization can reconfigure its routines(Kreiser, 2011), assimilation enables fast and flexible innovation development (Engelen et al. 2014), EO promotes open-mindedness and facilitates creation and communication of new ideas (Alegre & Chiva, 2013; Wang, 2008). Out of EO's dimensions the innovativeness has strongest impact on organizational learning (Kreiser, 2011; Wang, 2008). Prior knowledge (Engelen et al., 2014; Sciascia et al., 2014) and combinative processes (Li et al., 2009) facilitates innovation processes, effective knowledge processing enables organizations to pursue new opportunities with lower costs (Engelen et al., 2014), and by transformation routines the organization can better manage their innovation outcomes (Patel et al., 2014). Exploitative routines enhance profitability of innovations (Patel et al., 2014), enable correction of product errors based on a market reaction (Engelen et al., 2014), and promote innovativeness and trial-and-error learning (Engelen et al., 2014).

Versatile information from diverse sources enables organization's more precise risk evaluation (Engelen et al., 2014), and uncertainty facilitates organization's ability to acquire more versatile knowledge while PACAP enhances the perceived controllability (Kreiser, 2011; Patel et al., 2014). Strong assimilation routines allow organizations to assess the risk more precisely (Engelen et al., 2014), and risk-taking allows non-routinized trial-and-error knowledge recombination and learning (Patel et al., 2014). In the low-to-medium tech industries the risk of imitation can be reduced by strong transformation routines for tacit and practical knowledge (Sciascia et al., 2014). Organizations need to embrace the potential risk of failure in combinative routines, since the value outcomes of their combinations remains unknown until they are complete (Kreiser, 2011). Out of dimensions of EO risk-taking has strongest impact on exploitative learning (Hughes et al., 2007; Kreiser, 2011). Risk-taking is crucial when

introducing new products to potential markets (Wales et al., 2013), combining risk-taking and exploitation routines reduces organization's resistance to change when pursuing new opportunities (Engelen et al., 2014), organizational learning reduces the uncertainty of the operational environment, and the lack of exploitation would risk the imitation compromising the benefits of EO (Sciascia et al., 2014). Knowledge-based resource enable more precise value assessment of the opportunities, but such resources cannot be utilized unless organization is willing to fully pursue the risk even under uncertainty (Wiklund & Shepherd, 2003).

1.2. METHODOLOGY

This chapter goes through the methodology of the study. It introduces the research design, the empirical data collection, and the measures used for the study. The chapter also assesses the reliability and validity of the study.

1.2.1. Research design

The study was conducted by utilizing mixed method combing both quantitative and qualitative methods. The first step the quantitative part of the study was conducted as a survey. Based on the quantitative survey several companies were chosen for the qualitative case studies based on their performance, EO, and ACAP. By utilizing within-case and cross-case analysis from the qualitative case studies we aimed to identify common factors such as activities, practices, and mechanisms that occur in majority of the organizations.

1.2.2. Empirical data collection

For the study we collected two sets of data. First, for the quantitative study we identified 343 Finnish food manufacturing companies employing a minimum of 5 people from ORBIS database. We tried to contact the CEOs of these companies with phone to ask a permission to send them our questioner via email. We managed to reach 293 of the CEOs and 255 of them agreed to provide us with their email addresses for sending them the questionnaire. 118 responses were received, out of which 98 were fulfilled completely and had given us contact information enabling us to link the questioner data to financial data and had required financial performance data available for our research.

Based on the quantitative data we ran two-step cluster analysis using our validated retrospective variables EO and ACAP and one objective financial variable, EBIT-% average of three years, suggesting three clusters. After this we ran K-Means cluster analysis to plot those clusters indicating that one of them evidently outperforming the other two. The companies in the first

cluster represent sub-average EO, ACAP, and profitability (EBIT-%). The companies in the second cluster represent the highest performing companies in the sample. These companies show moderate EO and very high ACAP and profitability (EBIT-%). The third cluster represents companies with highest EO, below average ACAP, and slightly negative profitability (EBIT-%).

The second set of data was collected from the second cluster. The cluster contained 26 companies, out which 6 were chosen randomly for the second data collection the study, which were confirmed with a phone interview. In the confirmatory phone interview we double checked that the company would describe themselves as an organization as efficient actors in introducing new products to the markets. From these companies 11 interviewees were chosen based on their position and familiarity of their organization's knowledge on knowledge transfer activities. Interviewed personnel were most commonly CEO and a person recommended for the interview by the CEO. An average interview lasted one and half hours. The interviews were conducted face-to-face, recorded, and transcribed by professionals specializing in such kind of services. The qualitative sample conducts from 11 face-to-face interviews and 6 confirmatory phone interviews, which leaves us with total sample of 17 interviews from 6 different companies.

The face-to-face interviews were conducted as semi-constructed interviews, which were designed to reveal the company's actual mechanisms, activities and practices that contribute to acquisition, assimilation, transformation, and exploitation of the external knowledge related to new product/service development enabling us to interpret the influence of increased entrepreneurial posture. The interviewees were encouraged to support their answers with examples from their daily business.

1.2.3. Measures

The questionnaire used 7-point Likert-scale, in which the respondent evaluate statements from on scale from 1 (strongly disagree) to 7 (strongly agree), to assess EO and ACAP of the companies. For the measures of EO we used the modified scales from Covin and Slevin's (1989) and Lumpkin and Dess's (2001) scale drawn from Patel, Kohtamäki, Parida, and Wincent (2014). ACAP was measured by modified version of Jansen, Van Den Bosch, & Volberda's (2005) scale. Company's performance was measured in the terms of profitability by using average EBIT-% from years 2010, 2011, and 2012 drawn from ORBIS database.

1.2.4. Reliability and validity

The generalization of the results of the study has some limitations. Validity of that study refers to the study's ability to measure what was supposed to be measured and accurately enough to ensure validity of the findings (Saunders, Lewis, & Thornhill, 2009, pp. 158–159). The study was conducted as a cross sectional study, which provides a chronologically static point of analysis. A cross sectional study does not allow examination of causality or directions of causal relationships. Additionally, the study used a single industry sample from a mature low-tech industry from single geographic origin, it is possible that the findings of the study cannot be generalized to other industries, industry life cycles or other cultures. The measures for ACAP and EO were collected with subjective metrics, due to which the results may be affected by participant bias. Profitability on the other hand was measured with objective metrics, which leaves little room for bias. The qualitative data collected for the study was collected as semi-constructed interviews, recorded, and transcribed by professionals specializing in such kind of service to ensure the validity of the data collected.

Reliability of the study refers the extent to which the same results can be achieved by others replicating the study with same techniques and methods of analysis (Saunders et al., 2009). This ensures the consistency of the findings. The study aims for transparency in its methods and techniques of analysis and data collection. The research design, methods and techniques of data collection and analysis are explained in detail, to ensure the consistency of findings in case, if someone is to replicate the study.

1.3. FINDINGS

The results of the study indicate that the knowledge acquisition is the basis for innovation processes in the organizations with high ACAP and moderate EO. The acquisition of new knowledge sets in motion a process creating new products and services or improving the existing ones. The case organizations utilize incoming information as basis for their innovations. The results indicate that the sample companies value their customer's insight and customer interaction in their research and development. The new offerings are from the beginning aimed for to satisfy a detected customer demand. The organizations nurture close relationships with their customers, and utilize it as a valuable resource. EO on the other hand seems accelerates the speed of information acquisition. New ideas are rapidly brought introduced inside the organization without considerable time lag. EO facilitates the alertness for change in environment or customer preferences and proactive behavior to take advantage of such events. The organizations continue acquisition routines are overlapping with transformation and

exploitation routines to collect feedback on new developments, thus reducing the perceived risk, which again reduces organization EO.

In companies with high ACAP and moderate EO, the assimilation often works intertwined with acquisition. The acquired information tends to move quickly among stakeholders and within the organization. Sharing of new information and ideas builds foundation for the entrepreneurial innovations within the organizations. Informal conversations and brainstorming sessions are often the starting point for the innovation process itself. EO facilitates the intensity of assimilation, since the proactiveness motivates to sharing and interpretation of acquired information, and questioning of existing routines and ways of thinking requires risk-taking, proactiveness, and innovativeness.

The case companies use transformation to transform acquired knowledge into new resources, products, improvements, and practices to meet the customer requirements and needs. In transformation routines the companies utilize the collected information to add value for end-user, reseller, or themselves. The case companies' transformation works strongly intertwined with their exploitation and acquisition routines. Continuous collection of customer feedback and sales of prototype products are frequently used tools for transformation.

1.3.1. Theoretical contributions

The study improves the current understanding of ACAP routines, practices, and mechanisms in organization, and how a high ACAP interplays with a moderate EO.

Unlike presented by prior literature (Zahra & George, 2002), ACAP routines are not divided under specific dimensions, but are rather overlapping by nature. Each ACAP dimension plays an important role in organizations learning and exploitation routines, however the process is not linear, but continuous cycle instead. In many scenarios, the organizations actual ACAP routines and processes include more than one dimension of the construct. For an example, assimilation routines can be mixed with transformation practices, and exploitation often begins a new loop of acquisition. Instead of being linear stage-by-stage progress from one routine to another, the results suggest, that in reality the dimensions work intertwined with each other in a continuous cycle.

The study contributes to the literature on EO and ACAP, more precisely on the interplay between the two. It extends the understanding concerning the effects of the interplay on organization's

performance on organizational profitability. The results of the study show how organizations combining ACAP and EO achieve significantly higher profitability than the other actors within the industry. Organizations use ACAP to control the risks involved with entrepreneurial practices, routines, and maneuvers. By implementing ACAP to the EO routines, the organization is able to make more calculated guesses concerning the uncertain aspects of their activities, therefore, reducing the organizations perceived risk, and thus reducing the EO closer to the moderate level. The case companies show only limited interest towards firm growth, instead the companies are focusing on efficiency and profitability of their operations. This suggests that in comparison to high EO (Shepherd & Wiklund, 2005), the moderate EO shifts an organization's emphasis from growth towards the direction of profitability.

The study sheds light on general understanding of innovations processes in the small to medium sized organizations. The results provide us with insights on the innovation processes commonly used in SME organizations, especially in low-tech industries. The results show how EO and ACAP routines with their presence interplay to enhance organization's profitability.

Some of previous literature (Engelen et al., 2014; Kreiser, 2011) has discussed effects of individual dimensions and interplay between individual dimensions, but all in all the discussion concerning the individual dimensions of EO or ACAP can be considered as inadequate. This study sheds light on the individual dimensions and their interplays affecting the organization's performance.

The study offers insight on EO-profitability and ACAP-profitability discussions by using single industry sample. Majority of studies around the constructs are using high tech industry- or multi-industry samples. The study shows that the constructs are beneficial for organizations also in industries, where the level of technological advancedness is significantly lower.

1.3.2. Managerial contributions

The study shows that more profitable organizations create new offering based on feedback from customers and consumers. The majority of the ideas originate from the external sources, rather than from within the organization. Due to the external source of the ideas, the organizations ensure that their offerings have demand from the customer side, and the innovations are solutions to the existing problems. By sourcing their new ideas from their customers and end-users, the organizations are able to reduce the risk of their entrepreneurial activities and to achieve increased profits.

The case organizations create their innovations with a constant strong focus on product profitability and gross margins throughout the process. Because the profitability of the offerings is well planned from the beginning of the innovation process, it is more likely that the products are finished with more viable profit margins for the majority of stakeholders in the value chain. This manner of operations enables the companies to discard unviable product ideas early on, in case they are considered as financially impossible.

The study introduces practical examples of profitable practices and routines from the case organizations, which managers can imitate to enhance the profitability of their organizations. Yet, mimicking the practices may increase the profitability with the expense of the growth.

1.3.3. Limitations and suggestions for further research

The sample used for the study is from a mature low-tech industry. Due to the limitations caused by the sample, the results might not be generalizable to other industries. Additionally, the sample consists of only of companies operating in Finland, this may cause limitations in generalizing the results to other cultures. Further research should be conducted to verify the results of the study in other cultures, industry lifecycles, and industry technical levels (medium/high-tech).

The study is affected by survival bias. The data does not account for companies that have failed to survive and have perished to exist for some reason. This may cause the study to give an over optimistic perspective of EO and ACAP. Adding data from failed enterprises might add valuable insight to the research.

Market orientation shows some resemblance to interplay between high ACAP and moderate EO. It would be beneficial for the research to study the performance effects of market orientation in comparison to high ACAP and moderate EO, and the level of market orientation in companies with moderate EO and high ACAP.

Further research should pay attention to ACAP measures in low technology industry. The study reveals that in such industry ACAP externalize in ways that may not be captured accurately through Jansen's (2005) measures. Further research should consider reconfiguring the measurements used for ACAP, to meet the reality of low of low technology industry.

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2. ARTICLE: INCREMENTAL INNOVATIONS BY THE OVEN: INFLUENCE OF HIGH ABSORPTIVE CAPACITY AND MODERATE ENTREPRENEURIAL ORIENTATION ON FIRM PROFITABILITY

ABSTRACT

Intending to observe the interplay between entrepreneurial orientation and absorptive capacity the present study analyzes 6 cases selected by application of generalizable quantitative data and a cluster analysis. Consequently, the qualitative analyses revealed five main common processes and practices such as (1) appreciation of rich customer interaction, (2) agile external knowledge processing (3) informal daily dialogues (4) experimental product development (5) cost- and customer value driven opportunity capture. This study contributes EO literature by shedding light on the practices that underlie the interplay between entrepreneurial orientation and absorptive capacity. Managerially, the study guides managers to improve the profitability of their business operations.

2.1. INTRODUCTION

The growing market competition has increased the significance of innovation for the organization's success (Lisboa, Skarmeas, & Lages, 2011). Entrepreneurial orientation (EO) and absorptive capacity (ACAP) are considered as sources of innovation and competitive advantage. Yet, these strategic orientations do not operate separate, but interplay to influence on organizational outcomes. In the same way as organizations need EO and ACAP for innovation and performance, they should manage the interplay between EO and ACAP. For instance, where EO creates conditions to create new innovations, ACAP may interplay with EO to facilitate knowledge acquisition, and knowledge exploitation by adding learning capabilities. Rarely, studies concentrate on the interplay between these mechanisms, despite the resource-based theory suggest that competitive advantage is create in combination of variety of resources and capabilities, and the interplay may be particularly challenging to manage.

Numerous prior studies have discussed EO's ability to enhance organization's performance and growth (Rauch, Wiklund, Lumpkin, & Frese, 2009). Yet, the advantages of EO and ACAP have been also questioned (Wiklund, 1999) suggesting that these organizational capabilities may not be universally advantageous. One potential option is, the interplay between EO and ACAP. By application of quantitative methodologies, prior studies have analyzed the interplay between EO and ACAP, by analyzing the effects of EO on strategic learning capabilities (Anderson, Covin, & Slevin, 2009), and performance (Alegre & Chiva, 2013; Wiklund & Shepherd, 2003), on ACAP-profitability relationship (Wales, Parida, & Patel, 2013), as well as the effects of ACAP on the

EO-performance relationship (Engelen, Kube, Schmidt, & Flatten, 2014; Li, Huang, & Tsai, 2009; Patel, Kohtamäki, Parida, & Wincent, 2014; Real, Roldán, & Leal, 2014; Sciascia, D'Oria, Bruni, & Larrañeta, 2014; Wang, 2008). Whereas the prior studies on the EO-ACAP interplay have been conducted by application of quantitative methods and multi-industry samples, in-depth knowledge about the mechanisms that underlie the interplay in specific industries and cases are yet unexplored. Thus, a call to study the interplay by using a qualitative, comparative case approach exists.

This study was set to provide an answer to the following research question: Which mechanisms underlie the interplay between EO and ACAP relationship? This paper utilizes a mixed method of single industry quantitative data and qualitative case studies to study the interplay between ACAP and EO in organizations, which have a moderate EO, high ACAP, and significantly above average profitability in comparison to their competitors. By using a low-tech single industry sample and objective financial metrics the study aims to shed light on the interplay between ACAP and EO that facilitates organizations' profitability. Additionally, the study analyzes the interplays between the individual dimensions of both constructs, and provides further insights multidimensional nature of ACAP. Finally, the paper offers implications for managers by introducing common practices and routines found among the organizations with above average profitability in the sample.

2.2. THEORETICAL BACKGROUND

2.2.1. Absorptive capacity and firm performance

Absorptive capacity refers to processes and routines facilitating knowledge acquisition, assimilation, transformation and exploitation (Zahra & George, 2002). ACAP has been claimed to increase firm's proactiveness, diversification, innovations, competitive advantage, and finally performance (Cohen & Levinthal, 1990; Lane, Koka, & Pathak, 2006; Tsai, 2001; Zahra & George, 2002).

ACAP is commonly considered as a dynamic capability and thus as a source for sustainable competitive advantage (Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997; Winter, 2003) enabling the possibility to command above industry average economic rents (Barney, 1991). Dynamic capabilities allow organizations to reconfigure their resource bases and adapt to the changing operational environment, which enables them to change and generates competitive advantage.

The concept of ACAP contains outward-looking and inward-looking components that have varying roles in new product development, new technology implementation and new capability generation (Engelen et al., 2014). Knowledge acquisition and assimilation can be seen as outward-looking components. As a dimension of ACAP, acquisition refers to organization's capability to identify and obtain external knowledge that is connected to its current operations (Zahra & George, 2002). Organization's knowledge acquisition processes and practices determine how fast and effectively it is capable of acquiring external knowledge from various sources (Todorova & Durisin, 2007). Organization's resource investments on knowledge acquisition can affect the intensity, speed, and direction of its ACAP (Zahra & George, 2002).

The second outward-looking element, knowledge assimilation, refers to organization's capability to interpret, understand, and internalize the information acquired from various sources throughout the organization (Engelen et al., 2014). According to Zollo and Winter (2002), assimilation occurs through collective learning activities within the members of organization. The members of the group collectively engage in discussions, exchange ideas, beliefs, and experiences. By challenging and exposing the idea to constructive criticism the acquired knowledge is refined to more viable form for the organization. Due to the lack of assimilation capabilities knowledge outside organization's field of operations may be overlooked, because it is not thoroughly comprehended (Zahra & George, 2002). Deliberate collective learning efforts can enhance organizations awareness concerning the performance implications of their individual actions, thus improving the quality of daily decision making (Zollo & Winter, 2002). If knowledge acquired differs significantly of the prior knowledge typically processed in the organization, it can delay the comprehension of the knowledge, furthermore, since the knowledge is often context specific, it is hard for outsiders or competitors to replicate or understand it (Zahra & George, 2002). Wales et al. (2013) suggests that both, the dimensions of acquisition and assimilation, are mandatory evil of ACAP and optimizing the cost of these activities can enhance cost-benefit relationship of ACAP. Volberda, Foss, and Lyles (2010) argue that acquisition and assimilation facilitate organizations resource flexibility and knowledge deployment accuracy.

The third dimension of ACAP refers to organization's ability to utilize assimilated knowledge to refine and develop its routines, processes, and practices that facilitate combining of the recently acquired and assimilated knowledge to prior existing knowledge base (Todorova & Durisin, 2007). The character of knowledge changes in the transformation process. Previous knowledge may be deleted or existing knowledge merged with recent acquisitions (Zahra & George, 2002).

Organizations with higher transformation abilities are capable of recognizing compatibility and merge pieces of knowledge that initially seem incompatible and identify new business opportunities (Gebauer, Worch, & Truffer, 2012; Zahra & George, 2002). Zahra and George (2002) suggests that organizations can enhance its self-image and better identify new business opportunities in their operational environment by combining knowledge from various different sources, and by enhancing their self-image in the operational environment, the organizations can create new competences or refine its strategy. The fourth dimension of ACAP refers to organization's ability to apply transformed knowledge into commercial ends (Cohen & Levinthal, 1990). Exploitation ability consists of the routines and practices that allow organization to exploit their knowledge-base, but some organizations may be able to exploit their knowledge-base without systematic processes or routines, yet, the existence of routines, systems, and mechanics facilitate organization's ability to exploit knowledge for over extended periods of time (Zahra & George, 2002). Exploitation ability reflects on organization's capability to transform knowledge into business operations. Outcomes of exploitation activities are new products, systems, processes, or organizational forms (Zahra & George, 2002). By exploitation organizations launch ventures to capture market share from other actors in the markets. Organizations lacking the exploitative capacities are unable to transform acquired knowledge into new processes, services, or products (Todorova & Durisin, 2007).According to Lane et al. (2001) the international joint ventures are able to achieve higher performance by acquiring external knowledge and applying it to commercial ends. Zahra and George (2002) and Engelen et al. (2014) present ACAP as a dynamic capability, which is potentially capable of generating and sustaining competitive advantage for the organization, and thus enhancing firm performance. The differences in resources and capabilities can explain the organizational intra-industry performance variations. Since ACAP is valuable, rare, inimitable, and non-substitutable, according to Barney (1991) such capability can generate sustainable competitive advantage.

ACAP can be divided into two major parts, namely potential absorptive capacity (PACAP) and realized absorptive capacity (RACAP), these two complementary parts are both individually insufficient, but yet necessary (Zahra & George, 2002). PACAP consists of acquisition and assimilation, and RACAP out of transformation and exploitation. Ether of two parts is individually unable to enhance the performance of an organization, since the RACAP transforms PACAP into performance (Zahra & George, 2002). Organization's RACAP cannot commercialize ideas and opportunities, unless this knowledge has already been acquired and assimilated by the organizations PACAP routines, PACAP on the other hand does not individually generate performance for the organization at all, but it is necessary component of ACAP (Jansen, Van Den Bosch, & Volberda, 2005).

RACAP is the primary source of profits in ACAP routines. Organizations can enhance their performance by achieving or sustaining high efficiency factor (Zahra & George, 2002). PACAP plays an important role in ACAP process, but without recap it is unable improve organizations performance, yet with organization needs PACAP in order to leverage on it with RACAP routines (Zahra & George, 2002). Volberda et al. (2010) states that that ACAP is strongly connected to enhanced learning, innovation, and firm performance. Additionally, the empirical study by Lane, Salk, and Lyles (2001) shows positive connection between recognition and assimilation of acquired knowledge and utilization has positive impact on firm performance. Lane et al. (2006) argues that maintaining and developing their absorptive capacity is critical for organization's survival and success.

The development of ACAP is path dependent (Cohen & Levinthal, 1990). According to Zahra and George (2002), the organizations are more likely to focus on exploring areas that they already have past success in, and according to their study, the past experiences are tightly connected to organizational memory, which again guides development and performance of new products and services. Furthermore, Zahra and George (2002) suggest that organization's RACAP enhances its performance by incorporating acquired and assimilated knowledge into organization's operations and routines. Additionally, they suggest that organizations high RACAP to PACAP ratio leads to enhanced future performance of the organization. Similar arguments have been made by Jansen, Van Den Bosch, and Volberda (2005), who's research suggests that balance between PACAP and RACAP leads to superior performance.

2.2.2. EO and firm performance

Entrepreneurial orientation consisting of three dimensions: innovativeness, risk-taking, and proactiveness (Miller, 1983) has been used in numerous studies focusing on effects of EO on firm performance (Rauch et al., 2009). Majority of EO literature proposes that EO leads to superior firm performance (Rauch et al., 2009; Wiklund & Shepherd, 2011) and EO's effects on performance include higher profit margins, faster growth rate, or enhanced non-financial metrics such as innovation performance or goal achievement (Kollmann & Stöckmann, 2014). In the meta-analysis of 53 studies Rauch et al. (2009) found that majority of the studies show strong positive relationship between EO and both achieved- and perceived financial performance and also a strong, yet insignificantly weaker, relationship between EO and non-financial performance. Yet, some authors including Covin & Slevin (1991), have pointed out the lack of empirical evidence in supporting the EO-performance relationship. It has been suggested that

environmental factors such as dynamism and access to other required resources, such as slack resources, influence the relationship between EO and performance (Rauch et al., 2009; Shepherd & Wiklund, 2005). National culture, business size, and technological intensity of the industry have also been suggested to influence the relationship (Rauch et al., 2009). Only recently, studies have claimed that EO may not be universally advantageous but rather orientation increasing experimentation (Wiklund et al., 2011) meaning that EO does not unquestionably enhance the performance of the organization adopting it, but rather increases the variance of performance instead of just correlating with the mean of performance. EO may instead be strategic choice to be made within the organization, whether to enhance the organizations performance with an increased risk of bankruptcy, which is indicated high EO to be more beneficial for achieving high growth than improving profitability. Recently it is suggested that EO-performance relationship is non-linear (Dai, Maksimov, Gilbert, & Fernhaber, 2014; Wales, Patel, Parida, & Kreiser, 2013) suggesting that until certain point EO is beneficial but at very high levels of EO the affect is negative.

EO has been reported to improve organizations intellectual property management, new product development processes, and new product success by improving the novelty and meaningfulness of new products (Hong, Song, & Yoo, 2013). Additionally, EO enhances exploratory and exploitative capabilities of the organization, thus improving product development speed, product innovativeness, financial performance, and customer relationship performance (Chen, Li, & Evans, 2012).

From the perspective of the firm's growth it is necessary for engage managers to act entrepreneurially by providing the vision and imagination required for opportunist expansions (Penrose, 1959). Covin & Slevin (1990) suggests that organizations proactive strategic posture that aims into building market share is promoting its success. Several studies (Hughes & Morgan, 2007; Lee, Lee, & Pennings, 2001; Lumpkin & Dess, 1996, 2001; Wiklund & Shepherd, 2003; Wiklund, 1999; Zahra & Covin, 1995) point out the value of first move advantage that is associated with proactive firm behavior. The first movers are able to gain a head start before their competition when presenting new products or services, and thus generate brand recognition and generate notable profits before other actors join the market (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). By proactive behavior organizations can achieve success in new markets even without first mover advantage. According to Lumpkin & Dess (2001), by proactive behavior organizations are able to foresee future market demands, or additionally take actions in order to shape the future demand or the operational environment to be more suiting for the organization itself. Environment can be changed by introducing new

products or technologies that revolutionize the markets and thus significantly change customers' behavior (Kollmann & Stöckmann, 2014; Miller & Friesen, 1978). Studies Miller (1983), Miller & Friesen (1983), and Lumpkin & Dess (2001) have found strong positive relationship between firm performance and proactiveness.

The importance of innovation differs among industry life cycles and the levels of firm maturity. According to Covin and Slevin (1990), innovativeness plays important role especially in emerging and growing industries. When organization matures, its need for innovativeness is slowly being replaced with need for efficiency. Innovativeness can still generate innovations that revolutionize an industry, yet such phenomenon is not as common. Covin & Slevin (1990) emphasize the importance of product innovations in emerging and growing industries to promote firm success. Wiklund (1999) with innovativeness organizations can stay ahead of competitors, gaining it a competitive advantage that can lead to improved financial performance. Lee et al. (2001) clarify that without innovation new ventures would have to compete head-to-head with more mature competitors. In traditional competition against more established competitors is likely to lead to failure, since the new ventures often have fewer resources and are affected by liability of newness (Carroll, Freeman, & Hannan, 1983; House, Singh, & Tucker, 1986), when on the other hand more established competitors often lack such weaknesses and are able to rely on economies of scale (Lee et al., 2001). Wiklund & Shepherd (2003) suggests that innovative companies that create new offerings and technologies are able to achieve higher financial performance. According to the study on new venture growth by Brüderl & Preisendörfer (2000), the innovation strategy was the most important predictor for firm growth. The authors also point out that even though innovation is a significant predictor of firm growth, it does not guarantee its financial success.

Level of risk-taking is connected to firm performance. In emerging industries a firm's willingness to operate under uncertainty and take risky maneuvers can enhance its for success (Covin & Slevin, 1990). According to Lee et al., (2001) organizations that make significant resource commitments can possibly achieve high returns for their investments. Additionally, any investments on innovations are risky and its outcomes are uncertain until the innovation is ready to be commercialized (Lee et al., 2001). According to Lumpkin and Dess (1996), the relationship between risk taking and performance is equivocal. Wiklund and Shepherd (2003) suggest that riskier strategies may lead to higher performance in long term. Kollmann and Stöckmann (2014) argue that organization's high tendency towards risk-raking may preclude it from in-depth analysis, and thus preventing them from identifying and eliminating existing weaknesses in their products, services, technologies, and routines.

2.2.3. Interplay between ACAP and EO and the impact on firm profitability

EO increases the alertness for new market opportunities, willingness to innovate new products and services, and tendency to pursuit risky opportunities (Kollmann & Stöckmann, 2014; Lumpkin & Dess, 1996). ACAP on the other hand enhances organization's capability to acquire and utilize knowledge effectively (Zahra & George, 2002). Prior research has shown evidence that EO has positive effects on ACAP-performance relationship (Wales, Parida, et al., 2013), and ACAP has positive impact on EO-performance relationship (Engelen et al., 2014; Patel et al., 2014). In order to successfully act entrepreneurially, the organization requires supportive resources and capabilities (Wales, Patel, et al., 2013), knowledge processing and learning capabilities can benefit organization's ability to innovate, search for market opportunities, and pursue risky opportunities, as is common for entrepreneurial organizations (Kollmann & Stöckmann, 2014; Lumpkin & Dess, 1996).

Entrepreneurial organizations face increased amount of opportunities, and thus have better change of encountering high-quality opportunities that have business potential, ACAP on the other hand enables obtaining and exploitation of knowledge resources, which enhances capability to identify profitable opportunities (Engelen et al., 2014). Knowledge processing capabilities play an important role in enhancing organization's innovative capabilities (Covin & Slevin, 1988; Engelen et al., 2014). ACAP enables organizations to gather information from their current products and services and improve them by collecting feedback and implementing corrections and improvements, thus ACAP routines facilitate organization's trial-and-error processes (Engelen et al., 2014).

Proactiveness and innovativeness can help organizations to achieve first-mover advantages, via which it can achieve temporary competitive advantages and high returns until the competition catches up with it (Lumpkin & Dess, 1996, 2001). By adopting ACAP routines, organizations can empower their first-mover activities (Engelen et al., 2014). By combining EO and ACAP routines the organizations can more effectively exploit brief market opportunities like first-mover advantages. Lack of ACAP in entrepreneurial organization can cause failure in recognizing most potential opportunities, and thus limit its performance (Covin, Green, & Slevin, 2006; Engelen et al., 2014; Zahra & George, 2002).

EO allows organizations to utilize their knowledge-based resources more thoroughly to exploit new market opportunities, in the process enhancing their firm performance (Wiklund &

Shepherd, 2003), and it enhances organization's efforts to transform their absorbed knowledge into new resource bundles that create new customer value (Wales, Parida, et al., 2013). Wales, Patel, et al. (2013) show that EO moderates the curvilinear relationship between ACAP and organization's financial performance, by reducing the decline of financial returns. They suggest that this is because EO facilitates the commercialization of knowledge and its critical exploitation.

Organizations that exhibit weak exploitative learning benefit more from EO than the organizations with strong exploitative learning (Hughes, Hughes, & Morgan, 2007). Sirén et al. (2012) suggests that organizations limited learning capacities cause exploitative learning initiatives. The organizations excessively engaging in exploitative processes without investing in exploratory process expose themselves for a risk of an exploitation trap, which obstructs their learning capabilities. According Hughes et al. (2007) and Siren et al. (2012), by obstructing their learning capabilities the organizations endanger their long term competitiveness, due to their reduced knowledge acquisition. Exploitation strategies moderate negatively the exploration and strategic learning relationship (Sirén et al., 2012).

PACAP and RACAP both positively moderate the EO-performance relationship in low- and medium tech industries (Sciascia et al., 2014). EO becomes effective only, if organizations acquisition, assimilation, transformation, and exploitation routines are effective enough (Sciascia et al., 2014). EO is dependent on external knowledge on enhancing financial performance of the organization, furthermore, innovative, proactive and risk-taking practices can be unproductive if the organization is unable to absorb knowledge from its operational environment (Sciascia et al., 2014).

EO has direct impact to knowledge-creation routines of the organization, and it is antecedent of knowledge acquisition, assimilation, and interpretation (Kreiser, 2011). Li, Huang, and Tsai (2009) show, that EO has positive effect on organization's performance. Furthermore, the knowledge-creation acts as a mediator through which the EO affects organization's performance.

EO facilitates organizations learning from its environment and creates various organizational learning outcomes (Kreiser, 2011). Through EO organizations can achieve learning outcomes enhance knowledge-creation, competency development, and organizational performance. ACAP enables the organizations to acquire critical knowledge concerning their entrepreneurial activities and utilize the information to assess the risks associated with such activities on rational bases, thus reducing the risk of EO (Engelen et al., 2014).

Interplay between proactiveness and acquisition enhances organizations access to new opportunities (Engelen et al., 2014; Patel et al., 2014), enhances its capability to efficiently identify profitable customer segments (Engelen et al., 2014), facilitates organizations responsiveness to new knowledge (Wales, Parida, et al., 2013), and strengthens organizations acquisition routines (Wang, 2008). Together proactiveness and assimilation improve organization's ability to recognize the value of their acquired knowledge (Engelen et al., 2014; Patel et al., 2014) and the pursuit of entrepreneurial opportunities arising from the knowledge (Sciascia et al., 2014). Transformation combined with proactiveness enables combination of underutilized knowledge with the new acquired knowledge (Engelen et al., 2014), enables organization's rapid adjustments, facilitates internal learning, and strengthens the anticipation of market changes (Patel et al., 2014). Acquisition and exploitation allow organizations to take advantages of first mover advantages before their competition, and enables them to adapt into rapidly changing environment (Engelen et al., 2014), thus finding market opportunities quickly (Wales, Parida, et al., 2013).

Innovativeness can create new knowledge (Hughes et al., 2007). Acquisition from multiple sources enhances organizations innovativeness (Engelen et al., 2014; Patel et al., 2014), increased market awareness enhances new product innovativeness (Engelen et al., 2014), and moderate EO improves organizations tendency to acquire knowledge from external sources (Zhao, Li, Lee, & Chen, 2011). By combining EO and assimilation the organization can reconfigure its routines (Kreiser, 2011), assimilation enables fast and flexible innovation development (Engelen et al. 2014), EO promotes open-mindedness and facilitates creation and communication of new ideas (Alegre & Chiva, 2013; Wang, 2008). Out of EO's dimensions the innovativeness has strongest impact on organizational learning (Kreiser, 2011; Wang, 2008). Prior knowledge (Engelen et al., 2014; Sciascia et al., 2014) and combinative processes (Li et al., 2009) facilitates innovation processes, effective knowledge processing enables organizations to pursue new opportunities with lower costs (Engelen et al., 2014), and by transformation routines the organization can better manage their innovation outcomes (Patel et al., 2014). Exploitative routines enhance profitability of innovations (Patel et al., 2014), enable correction of product errors based on a market reaction (Engelen et al., 2014), and promote innovativeness and trial-and-error learning (Engelen et al., 2014).

Versatile information from diverse sources enables organization's more precise risk evaluation (Engelen et al., 2014), and uncertainty facilitates organization's ability to acquire more versatile knowledge while PACAP enhances the perceived controllability (Kreiser, 2011; Patel et al.,

2014). Strong assimilation routines allow organizations to assess the risk more precisely (Engelen et al., 2014), and risk-taking allows non-routinized trial-and-error knowledge recombination and learning (Patel et al., 2014). In the low-to-medium tech industries the risk of imitation can be reduced by strong transformation routines for tacit and practical knowledge (Sciascia et al., 2014). Organizations need to embrace the potential risk of failure in combinative routines, since the value outcomes of their combinations remains unknown until they are complete (Kreiser, 2011). Out of dimensions of EO risk-taking has strongest impact on exploitative learning (Hughes et al., 2007; Kreiser, 2011). Risk-taking is crucial when introducing new products to potential markets (Wales, Parida, et al., 2013), combining risk-taking and exploitation routines reduces organization's resistance to change when pursuing new opportunities (Engelen et al., 2014), organizational learning reduces the uncertainty of the operational environment, and the lack of exploitation would risk the imitation compromising the benefits of EO (Sciascia et al., 2014). Knowledge-based resource enable more precise value assessment of the opportunities, but such resources cannot be utilized unless organization is willing to fully pursue the risk even under uncertainty (Wiklund & Shepherd, 2003).

2.3. DATA AND METHODOLOGY

This study builds on multiple case study approach by investigating the practices and mechanisms that constitute high performing firms' absorptive capacity and reveals the involvement of the increased level of entrepreneurial orientation. The study introduces six systematically selected company cases through in-depth analysis based on unique data primarily collected through thematic interviews.

2.3.1. Case-selection and sample

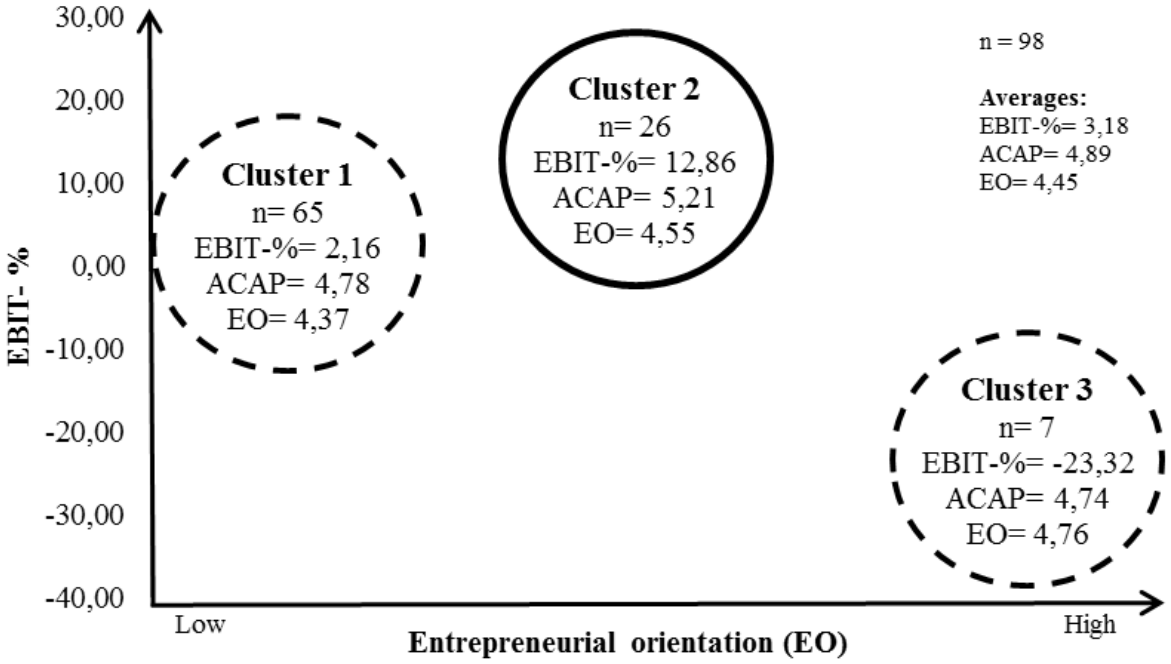
The case companies were selected based on quantitative data set collected through survey questionnaire and linking the primary data with financial secondary data accessed through ORBIS database. Thereafter, cluster analysis was applied to the combined data. Performing cluster analysis on quantitative data and selecting cases based on the results has been a technique recently receiving increasingly interest among scholars (Huikkola, Ylimäki, & Kohtamäki, 2013; Piekkari, Plakoyiannaki, & Welch, 2010).

As a first step, we run a list of 343 Finnish food manufacturing companies employing five or more people from ORBIS database. After, we called to each of the company reaching 293 of them by phone and asking permission to send them questionnaire through email. 255 CEOs and

managers agreed to give their email addresses and after the phone call and two email reminders, we managed to get 118 responses of which 98 had fulfilled the questionnaire completely, had left contact information enabling us to link the answer back to the financial data and had required financial performance data (EBIT-%) available.

Thereafter, we run two-step cluster analysis with two of our validated retrospective variables ACAP and EO and one objective financial performance variable, EBIT-% average of three years (2010, 2011 and 2012), suggesting three clusters. Then, we run K-Means cluster analysis to plot those three clusters indicating one of them clearly outperforming the others (see Figure 1). The first cluster on the left represents a group of companies demonstrating below average profitability, ACAP and EO. The high performing cluster (cluster 2) representing very high values in EBIT-% and ACAP and slightly above average levels in EO consisted of 26 companies, of which we selected six cases reporting above average values in all of the variables. Third cluster represents companies with highly negative EBIT-%, below average ACAP and the highest EO.

Figure 2. Three clusters identified through K-Means cluster analysis on quantitative survey data of 98 Finnish food manufacturing companies. Selected cases belong to cluster 2.



2.3.2. Data collection process

Interviewees were selected based on their familiarity on the knowledge transfer activities and mechanisms related to the new product development processes. Taken into consideration the industry and the size of the companies the respondents were selected among CEOs, development managers and production managers. The face-to-face interviews lasting one and a half hours on average were recorded with the permission of the interviewees and thoroughly transcribed by a professional agency specialized in such service. Two researchers conducted the interviews by using identical semi-structured interview templates to encourage open dialogue on topics closely related to the knowledge acquisition, assimilation, transformation and exploitation in the context of new product development. Our interview data consists of 6 confirmatory phone interviews and 11 face-to-face interviews leading to 17 interviews in total.

We started the interview data collection process by calling the six selected companies and had a brief phone interview with the CEO to confirm that the companies are active in terms of new product development and consider their selves efficient in introducing new products to the markets. Then, we scheduled interviews with two representatives being aware of new product development activities in each company. Out of 12 scheduled interviews with CEOs and managers, finally 11 were executed.

The interview template was designed to reveal the actual practices, mechanisms and activities that contribute to the external knowledge acquisition, assimilation, transformation and exploitation related to the new product development efforts. Interviewees shared their experiences openly and provided multiple real life examples of how information flows, ideas develop and different people contribute eventually leading successful new product introduction. The detailed descriptions of how the case companies operate also provided rich source of information on prerequisites and prevalent attitudes driving the financially successful new product development enabling us to interpret the influence of increased entrepreneurial posture. Obviously, as all the interviewees hold senior position, their answers may be partly influenced by prior work experience making the answers and descriptions interpretative. However, the practical and detailed examples confirmed that the shared insight mainly arise from experiences on knowledge processes in the case companies not from possible prior experiences in other companies or contexts. Further, possible respondent bias was controlled by comparing the answers and descriptions of both respondents in each company to enhance reliability of the study.

2.3.3. Data analysis

Data analysis was executed through simultaneous interpretation of the existing literature on ACAP and EO and the fully transcribed interview transcripts. Two researchers examined thoroughly all the transcripts organizing the data into matrices dividing observations of practices, activities and mechanisms related to new product development by the dimensions of ACAP and the evidence indicating the involvement of EO. As part of matrix development process, researchers got together repeatedly to discuss similarities and differences on their findings and read through the transcripts for several times and cross-checked each other's observations to ensure that the data was thoroughly and correctly interpreted (Eisenhardt, 1989). Along the process, the depth of analysis evolved from descriptive interviewee level to interpretative company and cross-company level analysis providing insight into the interplay of the main concepts.

In the beginning, each of the 11 interviews was organized into a separate observation matrix and then findings were matched and merged at into 6 company level matrices. All the observations were referenced with the interviewee name and transcript page number to facilitate cross-check process and to further analyze the possible existence of ACAP and EO interplay. Within-case analysis was built on these company level observations and complemented with interviewees' description of their business model and the information available on companies' websites and ORBIS database. Several within the research team discussion sessions were organized to create holistic overall understanding of the data and to evaluate similarities and differences in practices, activities and mechanisms and the existence and the nature of ACAP and EO interplay (Huberman & Miles, 1994). Further, all 6 company level matrices were brought together into a single matrix. Observations were organized into themes based on their similarity. Themes failing to indicate clear and substantial cross-case support of their importance in achieving excellence in new product development were dropped out.

The accuracy of the observation interpretation for both within-case and cross-case analysis was controlled through transcription cross-checks by other team members to ensure that all the relevant practices, activities and mechanisms were identified and the interviewee expressions revealing the involvement of entrepreneurial proactiveness, innovativeness and risk-taking were recognized. To confirm our results we deployed data triangulation by exploiting various data sources such as quantitative survey data, interviews, websites, secondary financial database (ORBIS) and data auditing technique meaning that two researchers red all the transcripts thoroughly to ensure data interpretation accuracy (Eisenhardt, 1989; Huberman & Miles, 1994).

2.4. RESULTS

2.4.1. Case description and within-case analyses

This chapter introduces the case companies and the results of within-case analyses case by case. Summaries and financial information of the companies can be seen in Table 2.

2.4.1.1. Case Industrial Meat Company

The company operates in Finnish and Swedish markets providing consumers cold smoked products and salamis. Its products are available on most of Finnish grocery stores and nation widely in Swedish markets. The company actively follows public discussions, markets, and consumer consumption preferences. By utilizing the knowledge gathered, the company has created additive free, low fat, and organic products to satisfy growing demand from nutrition aware consumers. The company has developed relatively fast product development processes in comparison to their competitors. Due to the agile organization structures in the company, its product development processes are capable of effectively transforming new ideas into original products faster than majority of their competitors in the market.

2.4.1.2. Case City Bakery

The company operates as bakery producing bakery- and confectionery products. Additionally, the company specializes in a niche of Mediterranean and French breads. The company's products are available for consumers from several grocery stores and company's regular marketplace booth. Furthermore, the products are actively sold for numerous Horeca customers. The company cooperates with their customers to comprehend consumer consumption preferences in order to create new product offerings that are more appealing to the consumers. Product pricing logics and profit margins are tightly implemented to company's operation and processes. The new products are developed so that they are capable of effectively competing with other actors in the markets pricewise without entering the actual price competition.

2.4.1.3. Case Additive Free Bakery

The company operates as a bakery that produces additive free products and operates several gluten free bakeries. It aims to create original bakery products that respect traditions and differentiate from competitors offerings. The company's products are available on their three own locations and numerous grocery stores due to the operation with national grocery store

chains. Additionally, the company offers its products to some Horeca customers that request specific kind of bakery products for their menus. The company frequently creates new experimental products that are available in their own locations and assessed based on their popularity. These products are further developed based on the received consumer feedback. The products that are positively received by consumers are further marketed for larger audience via grocery store chains to achieve higher sales volumes for popular products.

2.4.1.4. Case Pizza Company

The company operates in four different sectors: Restaurant business, Horeca sales, grocery store sales, and solution sales. The company produces bakery products for Horeca customers, offers convenience foods and sauces for consumers via grocery stores. Additionally, it has created easy to transport pizza concept solution for event organizers. The company utilizes the knowledge collected from their longstanding restaurant business to create products and services. Based on the knowledge from restaurant business the company found a factory to create and produce bakery products for their own restaurants and other Horeca customers. Furthermore, the company utilized the accumulated knowledge and resources generated by the restaurant business and the factory operations to create service solution targeted for event organizers, sport arenas, and other similar customers.

2.4.1.5. Case Traditional Meat Company

The company operates as a meat product wholesaler. It offers cooked- and raw meat products for Horeca customers and private consumers via grocery store meat counters and company's own shop. The company specializes in cured meat products and meat curing services provided for their customers, yet it also offers other meat products for the markets. The company actively gathers and utilizes the knowledge concerning the consumer consumption preferences via their store location in order to create new product offerings to satisfy the existing customer demands. Additionally, the company works in cooperation with Horeca customers to create new products for that sector. It visits customer companies personally to introduce new products. The customers are later contacted to gather feedback or take orders depending if the customer was satisfied with the product. If the customers are not fully satisfied with the products, the products are further developed and reintroduced to the customers in order to guarantee customer satisfaction.

2.4.1.6. Case Sauce Manufacturer

The company produces larger selection of different marinades, dressings, sauces, and spices for their customers. Additionally, the company offers their customers product development services free of charge. This is seen as a method of getting to business with customers. The company's customers are mainly meat counters, meat-processing companies, and grocery stores. The company works closely with its customers in order to receive feedback on their products, these feedbacks are used actively used to introduce new products for the markets and further development of existing products. The product development in the company works in close cooperation with customers to gain full understanding of customers' requirements for products being developed.

2.4.2. Cross-case analysis

The cross-case analysis intends to understand the central mechanisms across the studied cases. Particular focus has been on finding empirical evidence on the mechanisms between the dimensions of absorptive capacity (knowledge acquisition, assimilation, transformation, and exploitation), and the dimensions of entrepreneurial orientation (proactiveness, innovativeness and risk-taking).

2.4.2.1. Knowledge acquisition and entrepreneurial orientation

Data indicates that knowledge acquisition represents a starting point for the innovation process in the studied case companies. Knowledge acquisition is not only a common initiating capacity for the development process of new products and services, but also tightly interrelated with other dimensions of ACAP. Knowledge acquisition facilitates search and capture of new product ideas, as well as feedback and improvement ideas for the existing products. Hence, knowledge acquisition appears to provide essential information to assimilate, transform and exploit knowledge for new products.

The data demonstrated how the case companies value the customer insight and direct customer interactions as a source for new ideas. Based on the data, most of those new product ideas go all the way to production, originate from customer interactions, such as requests or suggestions. Friendly and trustful relationships with consumers, resellers and other partners facilitate open interactions to capture new insights. Case companies highlight the importance of careful listening, documentation, and sharing the customer suggestions within the internal organization. What is here important is the entrepreneurial activity that supports knowledge acquisition by facilitating listening, documentation and sharing. Without active interaction, documentation and

sharing, customer interactions remain empty. Thus, the role of entrepreneurial orientation here is to support absorptive capacity to enhance listening, documentation and sharing.

> *Sauce Manufacturer: We have had huge strength, that… we have had good relations with shopkeepers, so that we have well in advance acquired information that in the future they are going to require… with this we have gained new customers (s.40-41)*

> *City Bakery: One source that we hear lots of customers' opinions from is our delivery company, especially this one driver… He always tells us, who liked and what, and what have customers said. It is a pretty good source of information. He loves to gossip, (s.32)*

> *Additive Free Bakery: Restaurants are good engines for innovation. Each of them wants new, different kind of bread, that the others don't have… they give us ideas… our salesclerks give us feedback, telling us what the customers like… our own store is really valuable. … people give us feedback and request for new products. (s.25)*

> *Pizza Company: The interaction with the customers is really important. We constantly advice our waiters to listen to the customer. If a customer asks whether we sell a simsalabim-thingy, don't just reply "no", but also make notes on it, so we get the information that customers have requested for such a thing, and maybe in some point we can take it on consideration and start thinking of it and making preparations for it. (s.9).*

Secondly, the empirical data demonstrates the importance of bringing new ideas to the discussions inside the company without considerable time lag. Thus, here the entrepreneurial orientation, and in particular, the entrepreneurial proactiveness, facilitates rapid and effective sharing of new ideas within the manufacturer organization, increase the speed of development. In such endeavor, companies appear to benefit from increased alertness for new product and service ideas and other market opportunities indicating the existence of increased level of entrepreneurial proactiveness.

> *Sauce Manufacturer: I have a habit of taking matters forwards quickly and telling it onwards. Sometimes I run into others immediately, sometimes after a while, then I start taking the matter forwards, so that everyone else gets excited as well. (s.25)*

Additive Free Bakery: When we were at construction fair at Kauhajoki, people were asking for gluten free products. After that we founded a gluten free bakery. And on the next year we were chosen to be the gluten free company of Finland 2007 (s.25)

Industrial Meat Company: We are a rather small company, but in this salami business we are a big player, but small and flexible in our way, so we can really fast turn an idea to a product. It does not require that much bureaucracy after all.

Thirdly, knowledge acquisition serves the transformation and exploitation phases of the knowledge utilization. The companies collect actively feedback from customers in the very early stage of new product development to further guide the process. Since the product development processes of the companies are based on the acquired feedback, the companies' perceived risk is lower than it would be without the feedback knowledge. The reduced requirements for risk-taking decreases the entrepreneurial orientation towards moderate level.

Additive Free Bakery: We might ask directly from customer… or we hear a lot from konsulents … and bread department managers tell regards to our delivery drivers… and the customers say directly at the store that…. the reaction of the customers' is the utmost important

Traditional Meat Company: We have konsulents days here. There we experiment that what works.

Sauce Manufacturer: I think that good antennae are that we test our products at a big supermarket's service counter, so that they set our products available there, we can in short period several thousand consumers visiting the spot. All of them giving feedback.

2.4.2.2. Knowledge assimilation and entrepreneurial orientation

Knowledge assimilation often begins already alongside with knowledge acquisition in customer interactions. Open dialogue with consumers and resellers, but also with other actors such as logistics companies and promotion service providers, initiate the process of knowledge interpretation, which then continues inside the company. At the center of knowledge assimilation is interaction between internal and external parties, which through the shared interpretation of the acquired knowledge, increases collective understanding. Thus, here the entrepreneurial

orientation, in particular, the entrepreneurial innovativeness, facilitates effective knowledge interpretation and sharing related to new idea generation and creative processes.

> *Traditional Meat Company: pretty much here, when we are having coffee. So if some customer from somewhere asks for some special kind of product, we start developing it, considering what could be the idea and someone might get an idea that "Ya, let's try that" and then we start developing from there. …the thing usually starts from the coffee table conversations.*

> *City Bakery: while working we have lots of time to discuss informally, about how we do things, and where are we saving… There at the oven. At oven or at the dough making station… there we discuss these things, and what we could do, and where we could get raw material, or what kind of raw material suppliers there is.*

Most importantly, knowledge assimilation reflects the capacity to interpret, analyze, and understand the externally acquired knowledge (Zahra & George, 2002). Assimilation represents a process where the new knowledge is interpreted against the existing knowledge. Here, entrepreneurial orientation may facilitate absorptive capacity and knowledge assimilation by emphasizing proactiveness. Proactiveness motivates for challenging processes of knowledge sharing and interpretation within the manufacturer organization. As assimilation requires willingness to question the existing way of thinking and motivation to utilize new ideas and experiment, proactiveness, innovativeness and risk-taking may provide valuable facilitators for knowledge assimilation.

> *Additive Free Bakery: we have people, so from them some stand out as ones that want to try new things. And make them. We cannot always make them, but when we can we will give them chance and experimented with things. If we would not have our own store this experiments would always be thrown into trash. But since we have our own store we can sell the experiments to customers. Then our sales clerks will give us feedback on what things the customers like. The own store is really important and it is an opportunity that we should use.*

> *Traditional Meat Company: it goes like, that inside our organization when we make experiments… Our own grill sausages that are made here, came from employees idea to try it out.*

2.4.2.3. Knowledge transformation and entrepreneurial orientation

The studied cases demonstrate how knowledge transformation serves as a capacity to turn the acquired and assimilated knowledge into new products and product improvements that meet the requirements of established product strategy and customer needs. This capacity builds on the practice to evaluate new product ideas against the core attributes that consist of potential value to firms in different phases of the value system. At the center of the product's market eligibility is the potential value for the end-user, reseller and the manufacturing company itself. Thus, in transformation, ideas are brought to product concepts that simultaneously meet the expectations of the consumers, resellers and producers.

In these companies, knowledge transformation is continuous and relatively dynamic in character. That is to say, knowledge is continuously transformed to new product potentials, which are then developed further or quickly abandoned. Constant customer feedback on prototypes are used to feed information to guide the development of new products and features. Entrepreneurial orientation influences within the process by increasing the speed and determination. For instance, the case companies highlighted that the process from knowledge acquisition to assimilation and transformation may sometimes take only days – firms interpret and react immediately when they see challenges in product sales.

> *Pizza Company: just while ago we received feedback, that customer felt that our kids menu was obsolete… The customer felt that the servings were too simple, and immediately… on the next day we took actions. We brought it up and started developing it… this is our way to operate… we react to situation when it occurs.*

> *Traditional Meat Company: For Labor day we made one version of it [sausage] and on this week we'll make new one. The customer tried it and wanted changes, which we will now make. The product comes to customer's demand.*

> *Additive Free Bakery: it is easier to bake breads and put them up to our store for sale and see if they get sold. I ask from the sales clerks, that since it has been a good day, what do the customers buy and what do they like? And then they say that the customers have praised the Mämmi, and said that is the best. Couple of hundred people has bought it and five have said that it is the best they have ever had. Then we will lock the recipe down, and we won't change it anymore.*

Aspiration to understand the end-customer by building customer profile is also one of the methods used in our case companies. Customer profiling of the consumers and reviewing competitor products indicates strong competitive behavior and proactiveness related to stronger entrepreneurial orientation. Furthermore, the product development ideas originating identified customer segment are not perceived as risky as bolder and more fortuitous product ideas.

> *City Bakery: he [the customer] showed a big plate, which had our competitor's products… …then we started… …thinking what kind of people go there… we stated from there, that this is the clientele… …we started thinking, what do they want… ….It started working pretty well.*

Finding an optimal balance between customer value, attractive prices and high profit margins is at the center of the knowledge transformation. Successful product's embed low development, raw material, manufacturing and delivery costs, high value for the end-customer and good margins for different actors within the value systems. Based on the knowledge of critical price points and stakeholder profit margins, the companies are capable of assessing product ideas and creating products that are financially appealing for the customers. Calculating the prices in product development phase decreases the risk of product failure and enables the identification of the products that are ineligible for the markets. The decreased risk-taking reduces the entrepreneurial orientation towards a moderate level.

> *City Bakery: the recipes of our most important products also show the prices of the raw-materials… we approximately know the gross profit margins of the central corporations, so we have to think that if we sell it to them on certain price, and if they ask a certain price for the product. Would someone buy it?… it is really important to know how much we get from it… unit price psychology is also another thing… we both have a clear understanding of baking and we know how it works. So we can immediately calculate how much we need to get for it and what is the minimum price, and how much we should get, and how much we could ask for it.*
>
> *Traditional Meat Company: Everything starts from considering the production time, price of the raw-materials, and possible the price per kilo that we could possibly get. It needs to be reasonably considered, so we won't start chopping tenderloins here. It needs to be reasonable, so we can get some profits from it.*
>
> *Pizza Company: now the stores have started understanding this, that damn it, it is now only how much we sell, but rather that we sell the right products, which have profit*

margins. From our products the store gets damn good profit margins. Then they also want to put it on display well in the good spots inside the stores.

Additive Free Bakery: Of course, when for the producer there will be certain costs, but if it is so high, that the customer does not want to pay it then… Something have to be changed in the whole process or in the raw-materials, or in some other parts, or the products just is so that it cannot be released on the markets. That often comes clear in the point, when the product is tasted and some price is set for it.

The case companies emphasize the development of new products based on their existing capabilities, and product and service offerings. The new offerings are developed in a manner that they can be produced with the existing resources without making heavy investments in new capabilities or equipment. Thus, great majority of the new product and service innovations are rather incremental than radical. Further, product development utilizing the existing capabilities and resources lowers the required level of risk-taking.

Sauce Manufacturer: Since we mostly make same kind of products that we have until now, we don't have to make investments at all… Let's say that we'll rather stick to the markets that we have gained access to, so we don't try anything more extraordinary than anyone else, instead we stay rational and since we have some markets, we will tend to them well.

City Bakery: at the moment investments have been minor… the customer orientation is the most important thing, we cannot lose that. … All the other technical things and the rest can be solved in time. …But it is the secret to the old age.

What also appears to be common to our case companies, direct copies from competitors' products, even though successful, are not favored. The originality of ideas is more appreciated indicating the existence of increased emphasis on uniqueness. The original product ideas and refusing to copy from the competitors indicates strengthened proactiveness. Additionally, capability to create successful original products requires innovativeness which together with proactiveness indicate enhanced entrepreneurial orientation.

Traditional Meat Company: it is useless to start copying them, since they do things so cheap… We don't feel it as our own. …I think that it works the other way around, that the

big meat refineries copy us, since we are capable of making decisions in a day, when it takes the big meat refineries months when they start making them.

City Bakery: I have tried to differentiate our portfolio from what the big bakeries do, … for an example the abandoning of the rye bread. And the making of Artisan breads and Mediterranean breads. … After that we get lot of products that our competitors do not have.

Sauce Manufacturer: We don't think that we need to start copying our competitors, even if see that they have some novel product.

Industrial Meat Company: We have continuously strong desire to develop and take the salami markets forward. The fact that we sign into our logo, that we are masters of salami, also requires us to be forerunners in that segment and market.

Additive Free Bakery: Nine out of our ten new products are such that they lose to the others. But one will succeed. And well, our products are significantly different than what others have. Now since we are not market leaders, instead our market share is small maybe five, or maximum of ten presents in some areas, so our bread is nonetheless different than others'.

2.4.2.4. Knowledge exploitation and entrepreneurial orientation

Capacity to exploit new knowledge builds on leveraging the acquired, assimilated and transformed knowledge to enter the markets with new products. These companies familiar with effective prototype development and launching practices have capacity of entering to smaller local markets to see if the new products are capable of succeeding. If the products succeed on these local markets with smaller scale, the new products are introduced to larger audience by using the early success as a reference to empower future sales negotiations with other customers.

Hence, the case companies seem to exploit knowledge for creating prototypes and developing the prototypes further. Creating on early prototypes increases the speed of product development process, but also involves personnel and local customers to provide perspectives about product taste and appearance qualities. Thus, here the entrepreneurial orientation, in particularly proactiveness, facilitates cooperative operation and proactive feedback gathering in the product

development. Additionally, the prototype testing reduces the risk related to final published product thus decreasing the requirements for risk-taking.

> *Traditional Meat Company: It goes like, if we develop new product, we make a prototype of it and take it the customer …. Personal visit…. and then he tastes it … he accepts the product as it is or gives us improvement ideas … in the end if the product is good it starts to roll on by its own. In the end the consumer's will make the final decision.*

> *Sauce Manufacturer: we take samples to retail meat cutters and meat companies… in there the cooperation works well… they happily offer new things for the customers… from them we get rapidly… immediately in few days feedback, that it was good or alternatively a request to make small improvements.*

According to the interviewees, the case companies demonstrate rapid processes of new product development in comparison to the industry standards. Capacity to exploit new product ideas effectively appears to result from capacity to involve key personnel and customers to the development process. These result from in-depth integration with the internal organization and customer markets. The rapid product development processes and capacity to act as first mover on the markets indicate strong proactiveness, thus further indicating increased entrepreneurial orientation in the companies.

> *Sauce Manufacturer: we can get some feedback when our representatives visit the retail meat cutters… if we get critique that customers don't like something, then we immediately think if some changes should be made.*

> *Traditional Meat Company: when we can make decisions ... in a day here, when some big meat refinery… starts making decisions it will take them months, … This is like fast turning ship… I know how slow those big unwieldy ships [large corporations] are to turn. It might take them a year, before anything actually happens.*

> *Additive Free Bakery: if we take a competitor [large corporation] for example… they cannot just take their products to the store and say "Sell these". Instead they have to consider the new product and start making it in all of their bakeries or just in part of them. And it requires nationwide marketing. And they have deal with it from Helsinki, wait for stuff and develop things. It will take them a year or two. During that two years'*

time we have brought 6 new products to the markets, and shut have already shut down majority of them. For us the business lives fast like that.

The case companies are also able to capture the value of the prototypes by selling the products still in development phase. This creates cash flows already in development phase and increases the customer- and consumer knowledge over the product. The companies are able to reduce the risk related to new product development by capturing value throughout the entire development process. Thus, reducing the dimensions of risk taking, and therefore, decreasing the entrepreneurial orientation closer to moderate entrepreneurial orientation.

Additive Free Bakery: Today we plan and make. Tomorrow it is already for sale. And we get the money already on the same day. We get a constant flow of cash without any half year waiting periods.

Prototype testing with end-customers, in addition to enabling direct consumer interaction and continuous feedback loop, it serves also as a promotional activity. Thus, the companies do not rely on expensive marketing campaigns but rather believe that their high quality products speak for themselves and are capable of attracting consumers to purchase products after sample testing. Therefore, companies rely on product demonstrator days in supermarkets, which provide customer feedback and increase sales. The entrepreneurial proactiveness is related to competitively aggressive behavior, such as marketing campaigns, thus companies' reluctance to engage in expensive marketing campaigns decreases their entrepreneurial orientation towards moderate level.

Sauce Manufacturer: Sometimes we have a chef giving samples in our behalf… He goes next to a meat counter and gives samples of ether fish or meat products, which are seasoned with our products. Then he gives us feedback what the customers have liked, and at the same time we can boost the sales of our new products such as meats seasoning oils or chili pepper oils

Traditional Meat Company: in [larger supermarket chains] we are present in stores. We deliver our products there and we have our konsulents, who demonstrates the products, and gives samples, from that we gain customer awareness and improve our sales.

Industrial Meat Company: we have believed that … we have limited amount of resources to be used for marketing. … Probably the biggest thing for us is the visibility at the

shelves in stores. And additionally some minor things that we might have done, like some promotion campaigns in the product labels. Or in store visibility or something.

Additive Free Bakery: Marketing is really important thing, konsulents are one of the best ways to do it, and this own store of ours. Lots of customers come here, this is one of our best customers, this shop of ours and the grapevine marketing.

Even though, constant feedback loop reduces the risks related to final product launch, since the qualities are already tested on customers, the results also suggest that minor risks are not avoided at the expense of new product experimentation. This indicates the willingness of engaging market-driven opportunities suggesting positive attitude towards innovations.

Sauce Manufacturer: And our flexibility of course comes from that. It does not matter to us even if we make a small amount of products and they don't get sold. After that we just make them anymore. It is not a problem for us. We can make small quantities and we can make large quantities.

Additive Free Bakery: We don't really investigate the possible customer demand, rather we just try them out at our store, we give customers samples, or take the product directly to some store, where to we can directly take products to. We put the new product into shelves and see if it starts to move.

Pizza Company: Have to be brave and open-minded… Sometimes we have taken products that don't really have demand for, but we are just one organization, but we can quickly change it, so you can never know.

Finally, the case data also demonstrates how these companies emphasize the early market testing to introduced them to larger markets and other first-tier-customers. These companies highlight the importance of effective market entry with potentially successful products.

City Bakery: We do offer these conversions to our current customers and purchasing managers … and we can see … if there is demand for that kind of products. If there is, then it is easy to bring similar product, yet a bit different … We can try out with small quantities, and see how well they sell. Usually it can be seen pretty fast.

Additive Free Bakery: when the product has been finished and sample tested, maybe experimentally sold at our store, then after that we can pretty quickly see, if people are interested in it, and we should take it to nearby supermarkets or not. … we first try with a small volume in one location, before we expand to all the stores…

Additive Free Bakery: our sales manager gets in contact with them [the customers]. And makes them a handout and sends email. After that we send newsletter, that our delivery drivers take to the bread managers, showing that these are our novelty products, this is the price, and this is the EAN code.

2.5. DISCUSSION AND IMPLICATIONS

2.5.1. Theoretical contribution

The study contributes to the literature on ACAP and EO interplay literature, by extending the understanding concerning the effects of the interplay on an organization's performance, more precisely profitability. Additionally, the results show how organizations combine ACAP and EO to achieve higher profitability in comparison to other actors in the industry. Organizations use ACAP to control the risk involved with entrepreneurial maneuvers, practices, and routines. With involving ACAP in the EO routines, the organization can make more calculated guesses concerning the uncertain factors, thus reducing the perceived risk of their maneuvers, and furthermore reducing the EO closer to the moderate level. The case companies show only limited interest towards growth, instead they focus on profitability and efficiency of their operations. This suggests that in comparison to high EO (Shepherd & Wiklund, 2005), the moderate EO shifts an organization's emphasis from growth towards the direction of profitability.

The case companies demonstrate that organizations with moderate EO and high ACAP thrive from customer-oriented entrepreneurial orientation. The results shows, that these companies appreciate a rich customer interaction. The customer opinions and preferences are in the root of their operations and guide their innovation processes. By sourcing their innovation from customer interactions, the companies are able to produce proactive and innovative new offerings, with a reduced perceived risk due to the knowledge of existing customer demand.

With an agile external knowledge processing capabilities, the case companies are able to effectively and efficiently transform and exploit the acquired information into new offerings. By being able to quickly and cheaply to turn information into tangible offerings, the companies are

capable of taking advantage of emerging opportunities before the competition and generating significant profits. The companies utilize agile ACAP routines to enable the testing of ideas of various potentials, without exposing themselves to considerable financial risk. This reduces the level of risk that the companies are taking.

The results show that case companies mostly utilize informal daily dialogues to fuel their innovations. According to results, the informal conversations during the day-to-day operations are the base of innovative processes in the organizations. The companies make use of the time spent in production processes and on the coffee breaks to brainstorm around the acquired information in order to refine valuable new ideas from it. This combines proactiveness, innovativeness, assimilation, and transformation routines of the organizations.

The case companies regularly utilize experimental product development routines combining ACAP- and EO routines. The companies quickly develop viable products for the markets, which they use to collect customer and end-user feedback to improve product. The process in repeated with the improved products as many times a required to reach level of quality that satisfies customers and end-users. This manner of operations secures generation of revenues all along the development process, and ensures meeting of the customers' and end-users' quality requirements for the final product.

Profitability and cost awareness are both deeply embedded to companies' routines and practices throughout the development process. The results show, that the case companies put significant emphasis on product profitability, product pricing, customer profits, and end-user pricing. Awareness of competitive environment and price sensitive end-users dominates the product development processes, if the products are seen as too expensive for any of the stake holders, it is discarded as unviable. This signals of reduced risk-taking in the companies' product development routines.

Unlike presented by prior literature (Zahra & George, 2002), ACAP routines are not divided under specific dimensions, but are rather overlapping by nature. Each ACAP dimension plays an important role in organizations learning and exploitation routines, however the process is not linear, but continuous cycle instead. In many scenarios, the organizations actual ACAP routines and processes include more than one dimension of the construct. For an example, assimilation routines can be mixed with transformation practices, and exploitation often begins a new loop of acquisition. Instead of being linear stage-by-stage progress from one routine to another, the

results suggest, that in reality the dimensions work intertwined with each other in a continuous cycle.

2.5.2. Managerial contribution

Profitable organizations create their products based customer and consumer feedback. The bases for ideas derive from external sources, rather than from within the organization. This ensures that organizations' new offering have demand from customer side, and innovations are answering to the existing demand. By sourcing their new ideas from customers and end-users the organizations can reduce their entrepreneurial risk and achieve increased profits

Innovations are created with a constant strong focus on profitability and gross margins throughout the process. Since the profitability of a product or a service is well planned, since the beginning of the innovation process, it is likely that the product will end up with viable profit margins for majority of the stakeholders involved with the value chain. By operating in this manner, the companies are able to discard unviable ideas early, if they are seen as financially impossible to realize

According to the study, encouraging the informal dialogues within the organization can facilitate innovation and information acquisition, assimilation, and transformation routines. By creating a culture enabling informal communication the organizations enhance their knowledge based resources and innovativeness.

The sample companies illustrate, that the organization can achieve high profitability by creating practices that enable failure and trial-by-error learning. Instead of aiming to introduce ready or perfect products to the markets, the sample companies introduce viable products with limited development. The companies use these prototypes to reduce spendings on product development and to achieve products corresponding to the customer demand.

The study shows practical examples of successful practices and routines within profitable organizations, which managers can mimic for the needs of their organizations to enhance their own profitability.

2.5.3. Limitations and suggestions for further research

The study uses single industry sample collected from mature low-tech industry. This may cause limitations in generalization of the results of the study. Additionally, the sample consists of

Finnish companies, which may affect the results of the study and limit their generalization to other cultures. Further research should be conducted to verify the results of the study in other cultures, industry lifecycles, and industry technical levels (medium/high-tech).

The interplay between high ACAP and moderate EO shows some resemblance to market orientation. It would be beneficial to study the performance effects of market orientation in comparison to high ACAP and moderate EO, and the level of market orientation in companies with high ACAP and moderate EO.

The study collected data only from existing companies, so it is affected by survival bias. Further research should account for vanishing companies, which have for some reason failed to survive. Adding data from failed enterprises might add valuable insight to the research.

Researchers should pay attention to ACAP measures in low technology industry. The study reveals that in such industry ACAP externalize in ways that may not be captured accurately through Jansen's (2005) measures. Further research should consider reconfiguring the measurements used for ACAP, to meet the reality of low of low technology industry.

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