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Raising awareness of a brand strategy by a high tech SME manager: The effect of previous practice and felt needs

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Abstract

Despite the common knowledge that we live in a branded world, not all industries have found brands. In the present study I examined how previous practice and felt needs affect when a high technology (high tech) Small and Medium sized Enterprise (SME) manager raises his/her awareness of a brand strategy. Qualitative data was collected from personal face-to-face in-depth interviews in the USA and in Finland. The findings richly describe the very early stage of a brand strategy adoption process in high tech SME context. The findings suggest several courses of action to be taken by academic and industrial experts, public organizations and communities in order to allocate resources for high tech SME companies for finding means to compete and succeed. The findings encourage high tech SME managers to acquire more knowledge on branding in order to fully assess its advantages. The theoretical contribution of the present study to branding theories is in the context perspective. This paper differentiates the impact of the new marketing phenomena on commencing and adopting a brand strategy. This paper also contributes to high tech marketing and SME brand management theories by increasing theoretical understanding of how previous practice and felt needs affect a brand strategy adoption.

Keywords: brand strategy, adoption, high tech marketing, SME

1. Introduction

The role of branding in Small and Medium Sized Enterprise (later SME) context has been inadequately researched although the advantages of strong brands are widely recognized. Existing branding literature emphasizes the positive link between strong brands and companies' performance (Berthon et al. 2008; Keller 2008). Several researchers (Keller 2000; Keller & Lehmann 2006; Aaker 2006) see that brands endure since the rewards are so clear. Although the attention has been in mature consumer markets and in big companies, lately the interest has shifted also to other marketing environments. Abimbola and Vallaster (2007) suggested that brand and reputation building are critical factors in the success of SMEs in competitive markets. This view is also supported by Berthon et al. (2008) and Krake (2005) who discovered in their study that brand management influenced SMEs organizational performance in a significant and positive way.

Challenges for high technology (later high tech) SMEs are more numerous and complex compared to SMEs in other sectors due to the turbulent business environment. Therefore, it is important to allocate resources to finding the means to compete and succeed. The present study concentrates on high tech enterprises, because innovation technology is vital for growth. Technology changes the world and as a result it changes our lives. The changes are not only evident but also very quick and fundamental. Technology also offers us and our children the possibility of living a better life. It has an impact on education, learning, communication, infrastructure, entertainment, physics and many other fields. In other words, it offers many opportunities to traditional and future businesses.

A brand strategy can be viewed as a process which indicates if a brand strategy is exploited and implemented within a company (adapted from Love et al 2009). Although academic literature provides only a limited number of empirical research findings, many authors seem to have adopted the perspective, that only a few SMEs take branding seriously (Ward et al. 1999; Wan et al. 2013, 259). Hence, it can be stated that brand strategy implementation is "a new idea" in their business context. In other words, brand strategy has not been adopted in high tech SMEs.

There are two major perspectives on the process of adopting branding strategies. The first perspective, derived from high tech marketing and SME literature, recognizes that high tech SME companies are more reluctant than larger companies to embrace marketing concepts, such as brands. Marketing as a concept is unfamiliar to many managers due to their background. Managers of high tech companies often have technological backgrounds and lack the necessary professional marketing training or experience. According to Ward et al. (1999), the difference between a successful high tech company and an unsuccessful one can be brand management. However, it is possible that managers do not truly understand what good brand management involves and what it can do to their companies. (Meziou 1991; Ward et al. 1999; Temporal & Lee 2001; Berthon et al. 2008).

The second perspective, derived from branding literature, sees that companies are "born" with a brand mind-set already in place. In contrast to the first perspective, the learning or adoption process is not adequately acknowledged or its role is not seen as significant (Aaker 1991; Keller 1993; Kapferer 1997). The most important academic brand-related discussions have recently focused on how to build, measure and manage brand equity and they have not been about how organisations have

started to create and commit to their brand strategies. Furthermore, academic interest has focused on large, multinational companies and organisations with well-established brands usually operating in the consumer goods sector. Only a few studies and some literature can be found pertaining the high tech context (Ward et al. 1999; Temporal & Lee 2001). Studying the past in mature consumer markets has failed to awaken interest towards the adoption process, since the brands have been long established and they have been taken for granted. In the consumer sector the origin of brands is usually in tangible products and not in intangible technology, as the case usually is with high tech companies. (Kapferer 1997; Aaker & Joachimstahler 2000; Keller & Lehman 2006).

Warren & Hutchinson (2000) note that literature on high tech SMEs is concerned more about identifying the outcomes of the success factors rather than the process. They recommend more effort in studying the processes designed to achieve those outcomes. Traditional branding literature also concentrates on these outcomes by emphasizing how difficult and challenging it is to build up brands. It simultaneously reveals the inadequate level of current research from the perspectives of individual and organizational resources or knowledge-base.

The purpose of the present article is to focus on the phenomenon of how previous practice and felt needs effect on brand building. The preliminary assumption in the present research is that typically, the high tech SME managers do not build up or manage brands. This view is drawn from the prior literature (Ward et al. 1999, Wong & Merrilees 2005; Wan et al. 2013). However, this behavior raises puzzling questions. Why do they delay the implementation of something that could be profitable to them? Certain factors, other than just financial reasons, might be in the heart of this.

The present study participates in the debate on how new ideas become diffused and adopted. The majority of research on the process of adoption focuses on the end results (Meziou 1991; Moore & Benbasat 1991), the consequences of the adoption, or the rate of adoption and it is usually measured in a quantitative manner. These models contribute only a little to the present study because my emphasis is on the early stages of the adoption and the problem setting is of a qualitative nature due to the lack of previous research into the subject area. A major line and a classic issue in the innovation literature has been the perception view of potential users, which is also the focus in the present study. The main object of interest in this article is to understand how an SME high tech manager becomes aware of branding strategies. There is no standard definition of awareness and out of the many definitions the present study adapts the framework of task oriented awareness "*awareness focused on activities performed to achieve a shared task*" (Merikle 1984; Drury & Williams 2002). Adapted from Rogers (2003) theory, this stage is influenced by managers' previous practice and felt needs. The present study aims to describe and identify these concepts in an empirically defensible manner.

The present article consists of four main parts. First, in the section 2 the literature review provides some background information about the high tech environment and branding. The discussion is narrowed specifically to SME's context. Second, the section 3 describes the methods applied in the present study. Third, in section 4 results are presented under two general headings. Finally, the conclusions, limitations and suggestions for future research are discussed in section 5.

2. Literature Review

2.1 High tech SME's

This section begins by shortly defining and describing the context of the present article: the high technology environment as a business and marketing environment. The objective is to describe why it is important and relevant to study the high tech SME companies.

The term high tech does not only refer to a certain industry. The term is also used to describe occupations and products. A high tech company usually employs a "high" proportion of scientist, engineers and technicians and spends a "high" proportion of its expenditures on research and development. Some employees focus on R&D, increasing scientific knowledge and using it to develop products and production processes; others apply technology in other areas such as design of equipment, processes and structures. Others are focused on computer applications as well as on sales, purchasing and marketing. Finally, we should not forget quality assurance and the management of these activities. Most of the high tech industries are expected to grow faster than the industry average. This is noteworthy because the industries employ such a high proportion of high salary personnel. (Hecker 2005, 57-58, 61-62). Technology-oriented employees apply their education and knowledge to lead their company and simultaneously the industry that the company represents and, eventually, contribute to the growth of the national product.

The concept of "high tech" has various definitions. Some of the characteristics of technology can be related to and explain specific challenges for firms operating in "high tech markets". For example, the U.S Congress, Office of Technology Assessment (1982) defines high-technology industries as " (those) engaged in the design, development, and introduction of new products and/or innovative manufacturing processes through the systematic application of scientific and technical knowledge." (Mohr 2001, 5). Most government definitions (e.g. The Organisation for Economic Cooperation and

Development (OECD), The National Science Foundation, U.S. Bureau of Labor Statistics) of high technology classify industries as high-tech based on certain criteria such as

- high proportion of scientist, engineers and technicians (science, engineering, and technician occupation intensity)
- high proportion of R&D employment (R&D employment intensity)
- production of high-tech products, as specified on a Census Bureau list of advanced-technology products
- use of high-tech production methods, including intense use of high-tech capital goods and services in the production process. (Hecker 2005, 58).

Nations seek to develop high tech industries and governments globally have recognized SMEs as an important component of economy. According to the EU definition, SMEs are enterprises employing fewer than 250 persons, and their annual revenue does not exceed 50 million euro (European Commission 2005). High tech SMEs are seen as drivers of regional and global growth, new advanced technology and innovations. They are also associated with value-added production and success in the global markets. The effects of R&D conducted by high tech companies benefit also other business areas. They can lead to business expansions and creation of new high-salary jobs. (Rausch 1998). Moreover, they generate employment, tend to gain market share, create new product markets and use resources more productively (Litvak 1992; European Commission 2005; Locke 2006; Martin et al. 2009). They also struggle with most of their marketing activities (Meziou 1991; Abimbola 2001; Berthon et al. 2008) although they often recognize the importance of marketing to their success (Hills et al. 2008).

2.2 Branding in high tech SME's

One of the limitations of the existing branding literature is that a considerable amount of it has been published on large companies in consumer industries. This has left the relevance of branding theories within other contexts unquestioned. However, it is possible that a product's, an organization's and industry's characteristics may influence on brand building. This issue has grown in importance in the light of the recent branding literature which has indicated that branding is context-related (Wong & Merrilees 2005; Brodie & Chernatony 2009, 95; Centeno et al. 2013; Gundala et al. 2014).

Several authors point out that the number of studies on SME brands or branding is relatively small (Wong & Merrilees 2005; Reijonen et al. 2012; Centeno et al. 2013; Gundala & Khawaja 2014). However, in the wider domain of SME marketing there has been a greater amount of research which provides insights into the nature of SME branding. Gilmore et al. (2001) draw our attention to SMEs that have a different approach to marketing. The traditional marketing view is inappropriate for describing how SME practice marketing. The discussion about the relevancy of SME branding can be based on their unique marketing characteristics.

Although there already are some studies on SMEs that have focused on branding, this relatively new context-related approach of brand study is still at a pioneering stage. Abimbola (2001) attempted to understand SME branding as a competitive strategy. He concludes that branding is highly relevant to an SME. Several researchers (Warren & Hutchinson 2000; Krake 2005; Berthon et al. 2008; Spence & Essoussi 2010; Centeno et al. 2013; Gundala & Khawaja 2014) have studied brand building and management in SMEs. There is a large understanding that SME brands are built in a non-traditional manner, from an innovative, experiment-oriented and resourceful approach. Interesting new research on brand orientation in the SME context has been conducted by some researchers (Wong & Merrilees 2005; Reijonen et al. 2012). They found that the extent of brand orientation can be measured and that a high level of orientation can help companies to grow. In addition, brand communication activities have been examined by Centano & Hart (2013), and they state that reputation building becomes one of the key resources over time. Taken together, it is for future research to show the full potential of SME branding research and to make a significant influence and contribution to branding and to the marketing discipline (Krake 2005; Merrilees 2007).

All in all, the dominant perspective in branding research has been on marketing management and on large companies in consumer markets (Brodie & de Chernatony 2009, 95). Literature supports those marketers that already possess a brand and knowledge about it, although, despite the public support, many high tech SME firms struggle in commercializing their innovations. There is need for new emerging theories on marketing, such as service, management, network relationships and a context perspective to challenge the traditional views. Furthermore, literature indicates that branding is not seen relevant at the early stage of product development (the idea or innovation stage). This indicates a need to shift from tactical marketing operations towards strategic management.

3. Methodology

A literature search reveals some amount of qualitative research in the field of branding in SME's. Following approach by several researchers (Ho Yin & Merrilees, 2005; Krake 2005; Spence & Essoussi 2010; Centeno et al. 2013) qualitative approach was judged to be the most appropriate in order to answer the research question:

“How do previous practice and felt need affect when high tech SME managers construct their awareness of a brand strategy?”

Thus, qualitative methodology is well suited since the intention was to approach people, this is high tech SME managers and the way they raise their awareness on brand strategy. Qualitative methods are associated with exploring the social reality from the point of view of those in it (Alasuutari 1993; Patton 2002; Tuomi & Sarajärvi 2009).

The data was collected from personal face-to-face in-depth interviews. I designed a discussion guide for choosing the appropriate type of questions before conducting the interviews. I gave the priority to the respondents own ideas and provided them an opportunity to explore their own thoughts. However, I also took the freedom to prompt for more information if something interesting emerged. Furthermore, at this point it was not revealed, that the main interest of the study was in their branding awareness. Firstly, the aim was to give the opportunity to spontaneous references towards branding. Secondly, since the pre-assumption was that the managers are not quite aware of branding, the overall understanding of the umbrella concept, marketing, may enlighten the frame of the phenomenon. The session began by explaining the general purpose of the interview, meaning purpose was to study the respondents' perception of the marketing decisions in their companies. Discussion guide can be found in Appendix 2. The companies were selected on the basis of four determinants. The first two criteria were drawn from the EU definition (European Commission 2005). Companies needed to be small or medium size enterprises (SMEs) and they needed to be growth oriented. The third criterion for selecting companies was that they can be characterized as high tech companies, either at the moment or in the future (see section 2.1). The fourth criterion, the nationalities of the companies, was also of significance. The United States has been the leading producer of high tech products for the past decade (Eurostat Statistics 2008), and the growth of the Finnish GDP comes mainly from high tech (TEKES publications 2008). The description of the companies can be found in Appendix 1 in the order in which the interviews were conducted.

The selection of respondents consists of people who know as much as possible about the research phenomenon. This is those high tech SME managers, who are at the moment, or have been responsible for marketing decisions. The data has been collected in 2008-2009. All interviews were recorded and transcribed word for word. The methodology applied in the data analysis was content analysis. According to Tuomi & Sarajärvi (2009, 91), content analysis can be considered a theoretical frame which can be incorporated into other types of analysis. All in all, in the present study two different types of analysis were conducted, all within the frame of content analysis.

At first, the data was analyzed from a homogenous viewpoint. In other words, when examining the data the attention was paid to how the data described the phenomenon. For example, attention was paid to the previous knowledge and experience of the managers and what they actually did. During the second round of the analyses, an awareness perspective was aimed at. According the Alasuutari (1993, 71-76), awareness means how the data can be described and explained from different points of view. The data was divided into two types of sub-categories (such as the nation of the company, either the USA or Finland and either b2b or b2c companies). The aim was to describe the data through special characteristics. However, this aim was not quite reached, since no major differences between either of these categories were identified.

Data analysis followed abductive logic. By systematically combining theoretical and empirical findings the research process takes on a character that is different from both the deductive and inductive approaches. Abductive reasoning emphasizes also the search for suitable theories to an empirical observation, going back and forth between the framework, data sources and analysis is one of the elements in systematic combining, and it is also the tool for the researcher to generate new hypotheses. (Dubois & Gadde 2002; Kovács & Spens 2005; Råholm 2010, 260). Systematic analysis process helped data analysis move from descriptive analysis to analytical abstraction.

4. Results

4.1 The effect of previous practice of a high tech SME manager

In accordance with Rogers (2003) guidelines, during the first stage, knowledge stage, a high tech SME manager becomes aware of branding strategies and begins to search for more information. This stage is influenced by prior conditions such as individual's previous practice and perceived needs. Due to the absence of prior literature, the present study follows Mintzberg's (1994) recommendation to recognize the main constructs of the phenomenon. In other words, the description of the central concepts, such as previous practice and perceived needs, are based on empirical data and viewed from an individual high tech manager's perspective.

In this study a brand strategy is considered something that all managers in all industries are aware of. Brands are globally established constructs and everyone has personal experiences about them. However, it is possible for a high tech manager to select perceptions. In other words, (s)he avoids messages that are in conflict with his or her existing experiential knowledge (adapted from Hassinger 1959 in Rogers 2003, 171). As a consequence, the individual when (s)he is in the role of a high tech manager, can avoid marketing and/or branding messages because they are in conflict with his/her previous practice. According

to Rogers's (2003, 171) diffusion of innovations theory, the knowledge state commences when an individual is exposed to an innovation's existence and gains an understanding of how it functions. In order for a high tech manager to achieve the knowledge stage, (s)he has to be first exposed to awareness-knowledge about brands or its umbrella construct, marketing.

The result based on the data at hand can be compared with some diffusion scholars' claim that individuals play a relatively passive role in the beginning of the innovation-decision process (Rogers 2003, 171). The respondents' answers in general suggest that as a high tech manager (and not as an individual consumer) (s)he selects only those messages that are consistent with his/her existing, professional attitudes and beliefs. Respondent AR's comment "*you reflect it all the time through your own experience*" depicts well the assumption that the issues he/she considers worth discussing and drawing attention to are somehow related to or important to his/her own experiences. Overall, the respondents in the present study generally had previous experience in other fields than marketing. Usually the background was in engineering, but some had other education, such as arts and psychology or business studies in general. Some respondents highlighted their private life experiences such as being a mother or having science as a hobby. The educational and previous work and life experience may influence on the focus of a manager's work and priorities.

The general opinion among the respondents despite the fact that they all were responsible for marketing decisions was that their primary focus was in other tasks than marketing. This is in line with the majority of the earlier studies (Ward, Light & Goldstine 1999, 86; Temporal & Lee, 2001, 54; Walker & Mullins. 2008, 13). Often the justification is that the primary focus is in designing or developing a prototype or a product. However, what they say and how they behave is somewhat contradictory. The results of the present study highlighted the respondents' unawareness of the content and meaning of marketing. At first, when asked how much they participated in the marketing activities, most of them struggled answering with their answers. For example, one respondent (JC) said that only 5 -10 % of his daily activities involved marketing. Nevertheless, when I asked him to describe his typical working day, the description, involved a great deal of marketing activities, such as trying to identify potential customers, trying to find out their needs, trying to network and gain support from experts, trying to collaborate with other organizations in promoting their product (also called indirect promotions), trying to sell the product, build up the awareness etc. However, in the beginning of the interview, the manager seemed to have a different idea of marketing.

It seems that high tech SME managers are involved in marketing even though they might not quite be aware of it. Their working day involves a great deal of marketing activities and they understand the importance of knowing the customer needs. Interestingly, some of the managers did not perceive it as marketing. They called it product development or managing and, consequently, they do not see their activities as marketing activities. In addition, they seemed to confuse marketing with one of its core concepts, promotion. This notion raises an interesting viewpoint. In the long run, if the high tech SME managers do not understand that the key success factor can also be marketing, it is possible that their focus remains on the product instead of the customer. Background and previous experience do not only prevent the managers from understanding what they are actually doing, it may also direct to allocating too much future resources on product development instead of creating added value to the end user by using marketing tools.

According to the respondents' experiences in the data, the managers "shut" their eyes and ears from new marketing ideas, unless they felt that they needed them.

The data in general suggests that in spite of the growing information that is available about marketing and/or branding, the respondents tend to search specific marketing tools to solve their operational needs rather than to develop a strategy. This has also been revealed in Rogers's (2003, 171) Innovation-Decision theory. Some individuals' awareness of an innovation is due to the behavior that they initiate. They expose themselves only to ideas that are in accordance with their interests, needs and attitudes.

All in all, the findings seem to suggest that first barrier to adopting branding strategies is the fact that a high tech SME manager's mind is not receiving those messages of branding which could be a relevant strategy for their company. It seems that managers are involved in marketing actions without being quite aware of doing so. The reason for this might be that high tech people live more or less in the middle of a chaos since the rate of change is rapid and the environment is complex. Their mind is occupied by other, in their opinion, more important issues. They are willing to invest time and money in research and development and producing innovative products, rather than building up a brand. The data at hand overflows with descriptions of product development but lacks descriptions of marketing innovations. This finding speaks for impeded brand strategy adoption since the recent strategy and innovation literature emphasizes the importance of the external sources of knowledge, the knowledge from the environment in which the companies operate (Molina-Morales & Martínez-Fernández 2010, 261).

Figure 1 illustrates a high tech SME manager's own perception of the reality. The two circles below, which are connected with a line to the manager, are those elements that the high tech SME managers see as the most important areas of focus in their everyday work. The circle above, which is connected with dotted line to the high tech manager, illustrates the area that (s)he is not quite familiar with. According to the descriptions in the in-depth interviews, a manager's work included a great deal of marketing activities. Nevertheless, they often gave a different meaning to those activities and did not consider them to be marketing.

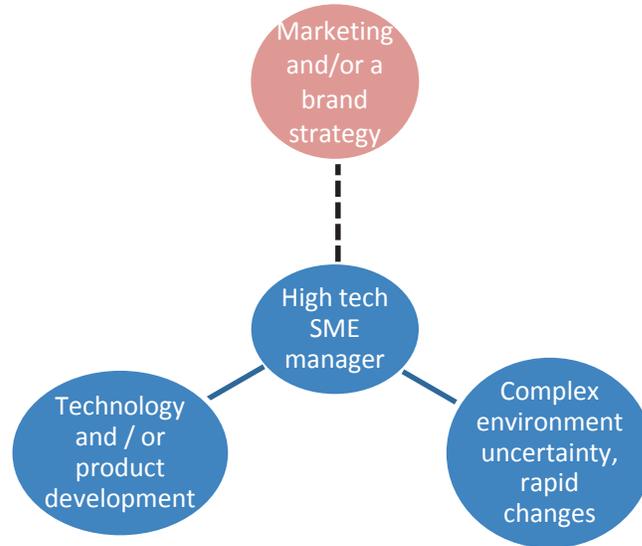


Figure 1. High tech SME manager’s perception of the elements of focus

When comparing the sub-categories of the data, the combination of the manager’s previous experience seem to have an relation on his/her attitude towards a brand strategy. However, no relations based on type of the company or national differences can be identified from the data at hand. More interviews and from a wide range of industries would be needed as a mean to reach a reasonable level of generalizability.

Table 1 summarizes the key issues and the effect of previous practice that it may have on the adoption of a brand strategy. Based on the data, it is likely that previous practice impedes the adoption. In general, previous practice raises and highlights an issue of general unawareness of a concept of brand strategy. Following abductive logic in constructing and validating explanations of new phenomena, the interpretation is based on systematically combining theoretical and empirical findings (see column “facilitates of impedes the adoption”) (Kovács & Spens 2005, 135-138; Råholm 2010, 260)

Table 1. Previous practice – A summary of factors that are involved when a high tech SME manager is exposed to a brand strategy’s existence

PRIOR CONDITIONS	Description	RESULT of the study in <i>italics</i> = new information revealed by this study	Facilitates or impedes the adoption Researcher’s interpretation either - based on data *) or - based on literature
Previous practice	Own experience is important, it is in other fields than marketing	Mind is not receiving brand strategy messages	Impedes (Rogers 2003, 171; (West & Noel 2009, 16-17) Experience of type of strategic approach may enhance (West & Noel 2009, 16-17)
	Perception of marketing is close to promotion	<i>Not quite aware of the meaning of marketing and/or of the fact that they already are involved with marketing</i>	Impedes *)
	Managers initiate tactical marketing operations	<i>Tend to search specific marketing tools rather than develop a strategy</i>	Impedes *)

4.2 *The effect of felt needs and/or problems*

In the present study the respondents do not spontaneously express the need for branding. The “need” in the present study is viewed as a practical or business need, and not as a personal or individual’s need. However, the results are in line with Rogers’s (2003, 172) notion, that a need is a state of dissatisfaction or frustration that occurs when an individual’s desires outweigh the individual’s actualities. The relative unfamiliarity with marketing or a brand strategy can be frustrating and cause dissatisfaction.

The data suggests that it is very difficult to implement marketing. In fact, the desire is to commercialize the innovation but the actuality is that the managers seem to put forward implementation. When comparing the nationalities, managers perceive the need for a brand with the recognition of a need to differentiate offerings due to the cluttered environment. It seems that the Finnish respondents highlighted the need for a strong brand especially when they wanted to enter the global market. The American respondents highlighted the cluttered environment as such. This need-country-bias may be due to the size of the domestic market. For the most of the Finnish companies competition is not very intensive in the domestic market. However, the domestic market is not sufficient for growth and the need arises to enter the highly competitive global markets.

What is significant is that the respondents know their own limitations in marketing skills. Therefore it is surprising that they seem to avoid the cause of frustration rather than begin to find solutions. Overall, it can be said that although the respondents do not express spontaneously the need for branding, the need for money arises in all answers, for instance: Respondent EK: “Well, our biggest challenge is money.”

The need for money arises throughout the interview in many other contexts as well and it seems to be in connection with time. The respondents are aware that brand building takes time and time is considered to be a cost. The concept of time increases uncertainty since the future revenues contain more risks than short-term revenues. Besides time, the respondents seem to be aware of other types of costs, such as media and marketing material costs, planning costs and external services.

However, only a few of the respondents were aware of low-budgeting alternatives in brand building. It seems to be a deeply rooted impression, and probably due to the experiences in consumer goods industry, that branding is always expensive and takes a great deal of time. This perception arouses wondering in particular since the examples of the most successful and fastest built up brands today come from the high tech context, such as Google and Facebook. It is possible that the unfamiliarity with the content of a brand strategy leads to passive behaviour and thus more information may facilitate the adoption.

The data indicates that knowledge about branding strategies may come first from outside and can raise the motivation to learn more. A high tech manager can be active and seek for information from communication channels. He/she wants to gain information in order to be able to reduce uncertainty about the advantages and disadvantages. This result is thus in line with Rogers’s (2003, 171) statement that the knowledge of an innovation is important because knowledge can lead to a need.

The respondents appear to regard networking as the primary source of marketing information. The findings also suggest that by networking, they can reach many industries, not just the industry that the company is in. It seems that they value all types of knowledge gained in the communication situation. In other words, although networking takes plenty of time, and the results are difficult to show, they want to take the time and effort in order to communicate in other contexts. Managers can be very creative with how to build a network. To whom ones talks seems to be more important than where the discussion takes place. Preferably, one should have an interest in or have something to gain through what the company is trying to do. However, managers are conscious of how much they ask of people. Finding the right people is not easy and building up and maintaining networks take time. Moreover, they require personal communication skills. The most common networking places are trade shows and exhibitions. In addition to knowledge, networking enables personal experiences. One respondent described a trip to the USA as a turning point of their marketing. By observing the presentations of other companies, more advanced in terms of branding, he understood the advantages of a brand strategy more clearly.

However, as with silence, some respondents do not tend to see other people or networking as the source of marketing information at all. What is not apparent is whether they do not realise what the impact of others is or whether they tend not to utilize the information from others. One respondent referred to travelling as a source of information, and it can imply that information from informal settings is regarded as overall experience rather than networking.

In the present study some respondents highlighted the feedback from experts. Rogers (2003, 172) calls these outsiders as “change agents” as they can create a need among the high tech managers. On the whole, the interviews indicate that many parties fit into the definition of a change agent. When asked to name sources of advice, the respondents mentioned the following: universities, universities of applied sciences, private consulting companies, public organizations (such as Tekes and Ely in Finland), business mentors, other companies in the supply chain, other entrepreneurs (sharing the same attitude) and advertising agencies.

Not all respondents agreed with what the change agents recommend or think that the managers needed. The attitude towards and sufficient knowledge about marketing and branding, their relevance to the company’s situation and potential usefulness compared to the investment, seemed to have influence on the perceived need of a brand strategy. Moreover, the

respondents told that they gained information from written documents. Technical and trade journals were regarded as more important than books. However, online websites and other material available on the Internet seemed to take over. In particular, the respondents searched on the Internet when they needed information to do something for a specific occasion, for example how to give a presentation.

The development of online materials has noticeably altered the use of written documents. The value of the online materials is in their ability to provide topical, exact information at once for a need at hand. However, not all information from the Internet is relevant and sufficient. The managers just get enough to get by. Moreover, the need for practical tools arises but good text books focused on branding guidelines for non-marketers are not available. Therefore, it can be assumed that trying to manage a brand on one's own, under these circumstances, is very difficult.

The knowledge of the existence of a brand strategy can create a motivation to learn more (adapted from Rogers 2003, 172). The only prerequisite for high tech SME managers is to recognize that they have a problem or that they could benefit from branding strategies. In fact, high tech industries employ high proportion of highly educated people. Education cultivates an individual's skills, especially so called meta-skills that enable the gaining of more skills.

When comparing the sub-categories of the data, to seek support, information and resources from different external sources of advice, appears to be important for both nationalities and types of companies (b2b or b2c). To the extent to which personal sources may be preferred when managers are uncomfortable or uncertain about their decisions, this study suggests that managers in the USA may turn more often to their private sector sources such as family and friends. In contrast, in Finland the managers seem to contact mainly individuals and organizations whose primary role or functions includes support for business.

Based on the respondents' answers it seems that their attitude towards learning is favourable and generally the ability to learn quickly even highly theoretical issues is high. The interviews confirm the assumption that high tech managers are curious by nature (Mohr 2001, 7). From the heart they want to see how products are made and how they work and they have a commitment to solve problems no matter how long it takes.

Nevertheless, the respondents' comments also revealed barriers in this particular area. Marketing experts and public organizations can play a vital role in communicating about brand strategies and the effects they are likely to have. Unfortunately, the respondents seemed to lack competencies to evaluate the quality and the relevance of the advice compared against the cost. Some respondents had discovered a very innovative solution for this challenge. They had formed relationships where some of these advisors were unpaid. They called these people "*a supportive group of people*". Perhaps the motivation of this group of people to help the companies lies in their conscience. It is often the case that the innovations that high tech companies are trying to commercialize can improve the standard of living or ease the lives of many people. For example, people can recover faster and better from a stroke. In fact, the companies have a very true and good story to tell about what their products can do. This story can make such a great impact that some people are willing to share their expert knowledge just to help and do not expect any money in return.

Table 2 concludes the empirical analysis concerning felt needs and problems by high tech SME managers and summarizes the key issues. Based on the data, it is likely that a perceived need for branding facilitates the adoption and vice versa. The active high tech managers begin to search for information from different communication channels. The managers want to find information cost-effectively and quickly. Financial factors raise concerns since it seems that high tech SME managers are not aware of other, less expensive alternatives.

Table 2. Felt needs/problems – A summary of factors that are involved when a high tech SME manager is exposed to a brand strategy's existence

PRIOR CONDITIONS	Description	RESULT of the study in <i>italics = new information revealed by this study</i>	Facilitates or impedes the adoption Researcher's interpretation either - based on data *) or - based on literature
Felt needs/problems	Managers do not express the need for branding spontaneously	The unfamiliarity of a brand strategy can cause frustration	Impedes (Rogers 2003, 172)
	Difficult to implement	Put forward the implementation	Impedes *)
	Know their own limitations in marketing	<i>Avoidance rather than finding solutions</i>	Impedes *)
	Feel that they do not have enough money	The expected revenues are too far away in the future <i>Not aware of low-budgeting alternatives</i>	Impedes *) Impedes *)
	Knowledge can lead to need	The source of current knowledge is from technology industry and business models	Impedes (Temporal & Lee 2001)
	Active ones seek information from communication channels	Information reduces uncertainty	Facilitates (Rogers 2003, 171; McGovern 2006)
	Primary source of information: Networking	Creative in building Finding the right people Can reach many industries All types of information are valuable Requires communication skills Takes a great deal of time, and the results are difficult to show Enables personal experiences Some tend not to utilize the information from others	Facilitates *) (Gronum et al. 2012) Facilitates *) (Gilmore et al 2001) Facilitates (West & Noel 2009) Facilitates (Gronum et al. 2012; West & Noel 2009) May impede (Gilmore et al. 2001) Impedes *) (Gilmore et al. 2001) Facilitates *) (Gilmore et al. 2001) Impedes *)
	Source of information: Change agents	Can create a need among managers Not all agree with what they recommend	Facilitates (Rogers 2003, 172) May impede *)
	Source of information: Written documents	Internet seems to take over. Information at hand <i>Need for good text books arises</i>	Facilitates *) Impedes *)
	Source of information: supportive group of people	<i>Experts help you for good reasons of conscience; need of a good story</i>	Facilitates *)
	Knowledge can create motivation to learn more	The manager's attitude towards learning is favourable Ability to learn is high Managers are curious by nature	Facilitates (Rogers 2003, 172) Facilitates *) Facilitates *)

5. Discussion

5.1 Conclusions

The present article has discussed how high tech SME managers become aware of a brand strategy, and how this makes them begin to search for information. Similarly to the findings in the present study prior studies (Ward, Light and Goldstine 1999; Gilmore et al 2001; Temporal & Lee 2001) have discovered that high tech SME managers' background affect their intentions of brand management. Ward, Light and Goldstine (1999) see that a non-marketing background limits high tech managers understanding about the branding advantages. Thus, this may lead to the rejection of the idea of adopting a brand strategy.

However, the findings of the present study suggest that primarily it is crucial to understand the non-marketing background from the viewpoint of how messages are interpreted. The non-marketing mind-set inhibits receiving brand strategy messages because the recipients consider their primary focus to be on other tasks than marketing. Moreover, some of the respondents of this study did not seem to be quite aware of the meaning and content of their own involvement in marketing, although they were responsible for it. As a consequence of this kind of a situation, managers may allocate more resources to product development instead of creating added value to the customer by using marketing tools. This is consistent with West & Noel (2009, 17) findings that prior experience have implications for the staffing practices and founder team composition in the new business. The respondents also tended to postpone or avoid marketing related decisions. When discussing the key factors of moving forward to implementation, the respondents brought up the need of money. However, when interpreting the data, it was apparent that the respondents also lacked knowledge.

Many prior studies (Grønhaug & Möller 2005; Armario, Ruiz and Armario 2008; Hills, Hultman and Miles, 2008; Wong & Merrilees 2008; Gromark and Melin, 2011) stress the need to enhance market or brand orientation in SME's in order to create competitive advantage and thus enhance their success. The findings of the present study confirm that the need has not disappeared. Moreover, the present study suggests that a market-oriented attitude needs to be built from the very beginning. Managers need to be aware of the fundamentals of marketing since it is a prerequisite to managing marketing. In fact, managers who understand how much their work involves marketing are more open and willing to learn more and they have the tendency of even receiving information concerning marketing.

This study has found that generally information on branding facilitates an effective adoption of a brand strategy. The respondents seem to consider networking as the primary source of information. This is an interesting viewpoint for future research since traditionally branding has been seen internally-driven process. However, branding from relation-centered viewpoint, that is contribution of partners and other stakeholders as co-creators of branding has been paid only a little attention. This finding is in line with prior studies. Mäläskä et al. (2011) propose a model of network actors' participation in b2b SME context. West & Noel (2009) suggest that due networking individual managers may have more knowledge at their disposal than they think. The study conducted by Donckels & Lambrecht (1997) states that highly trained entrepreneurs in growth-oriented companies tend to have a wide network position. Gilmore, Carson and Grant (2001) concludes that networking is a marketing competence and that as such, a way of implementing marketing in SMEs can be developed. Several researchers (West & Noel 2009; Molina-Morales & Martínez-Fernández, 2010; Gronum, Verreynne & Kastle, 2012) highlight the importance of networking especially in a new context since it is a source of new information and a high predictor of performance. This study suggests that finding the right people is the basis of conducting business in a high tech SME context. The advantage is that by networking the managers can reach many industries, and although the different ways of forming the networks require time and the outcomes are difficult to show, the respondents consider it worth their time.

The results of this study indicate that prerequisite for successful networking is communication skills, and typically technical people have communication problems (Möller & Rajala 1999, 223-252; West & Noel 2009, 18), which may impede or limit networking. On the other hand, high tech managers are creative by nature and therefore can find innovative ways of developing and maintaining relationships. This finding is in agreement with Gilmore, Carson and Grant (2001) who suggest that networks develop in the course of time. Although the importance of networking is emphasized by prior studies and by the majority of the respondents in the present study, not all managers find other people as the main source of information. The evidence from this study suggests that this is due to a lack of confidence in their expertise. They considered it difficult to find good experts who would understand the very complicated nature of high tech branding, and it is quite clear that this may be the case in reality. West & Noel (2009, 18) support this view by highlighting networks that managers utilize for advice and consultation seem to be critically important. Therefore, some level of self-confidence in one's ability to judge the value of advisement is in place. The study conducted by Gibb (1990) also confirms the above findings. According to Gibb (1990), the most SME's will not deliberately seek formal sources of support unless they are introduced to them through their existing informal networks in which they have developed confidence and trust.

However, this study did not reveal financial reasons for not seeking help from experts. Hanlon & Saunders (2007) demonstrated that the start-up phase combined with limited financial resources forces the manager to utilize resources immediately available for little or no cost. Nevertheless, a manager is able to extract more work from unpaid sources than paid sources.

Mäläskä, Saraniemi and Tähtinen (2011) conducted a qualitative study in which they suggest a concept of a “branding pool”. It refers to “the independent network actors that directly participate in B2B SME branding activity, and is distinct from the related concepts of a branding community and strategic net”. They propose those actors to be other firms, non-profit organizations, governmental bodies, or individual managers. It can thus be suggested that public organizations could play a more active role in training and providing experts specialized in high tech marketing. Moreover, the experts need to build close networks and meet the entrepreneur’s needs. Especially during the start-up phase specialized knowledge needs to be obtained cost-effectively and quickly. Such approach may maximize the benefits from branding knowledge compared to it being purchased later on in the company’s development process.

It was also shown that managers tend to search for specific marketing information from written sources. It is interesting to compare this finding with West & Noel’s study (2009, 17-18) in which they identified three different sources of knowledge resources: 1) related industry and business experience, 2) previous experience in start-up situations and 3) knowledge gained through networking. Written sources were not mentioned at all. The significance of online material seems apparent since it was mentioned as the main source by all the respondents. What makes Internet so popular is its ability to provide topical, exact information at once for a need at hand. An implication of this is the possibility that public organizations can offer virtual marketing services with reasonable costs aimed at high tech companies.

As to the Internet, it is considered a favorable learning environment. High tech managers’ positive attitude and high educational background also facilitate learning. However, one of the significant findings emerging from this study is that there is a lack of relevant learning material in the market. Branding guidelines for companies that possess only an idea about the technology but not yet the tangible end-product are absent in literature although the need for a brand strategy arises already when of only the idea of an innovative product is born. Moreover, the results of the present study indicate that branding may be different in SME context compared to traditional marketing environment. The latter view is supported by prior research (Doyle 2001; Wong & Merrilees 2005; Berthon, Ewing & Napoli 2008; Centeno, Hart & Dinnie 2013). As discussed already in the Introduction, the role of the learning and adoption process of a brand strategy is seen as insignificant in literature. This leads to a lack of sufficient and appropriate text books or other written material aimed at non-marketers in different marketing contexts.

An interesting source of information, which is highly linked with the high tech SME context, is people who help the companies for good reasons of conscience. This is a finding that was not raised in the background literature searched for the present article. A noteworthy characteristics of high tech companies is that they provide innovations that often offer us the possibility of living a better life. These features are valued in society and motivate people to help companies to commercialize their offerings without expecting financial rewards in return. Their reward is being able to help people in need. The challenge that the high tech companies face is how to find these people. Some online funding platforms are available for people so that they can fund what they are passionate about or what matters to them (for example Indiegogo). However, public organizations could also take an intermediary role in linking the companies and experts who voluntarily want to take part in facilitating the success of an innovation.

The theoretical contribution of the present study to branding theories is in the context perspective. Most of the earlier research on branding takes the perspective of brand equity and brand management in large organizations in the consumer industry or regardless of the environment. However, the present study contributes further to the branding theories in differentiating the impact of the new marketing phenomena on commencing and adopting a brand strategy. This study also contributes to high tech marketing and SME brand management theories by increasing theoretical understanding of how previous practice and felt needs and problems of a brand strategy affect its adoption.

5.2 Limitations

Firstly, a limitation of the present study is that it is “manager-centric”. It presents how to become aware of branding strategies from the individual’s perspective. Secondly, in the present study the conclusions are reached without complete evidence. External validity refers to concepts that are created from the data and that can be used in different ways. The validity of the findings is based only on a fair sample which is not representative of a larger population. The sample limitation also raises a question about objectivity, the extent to which the elements of the theory can be generalized to other marketing environments which have not been early to adopt branding strategies. Thirdly, the truthfulness of origins refers to possibility that the respondents would try to give an ideal description of their reality. The results of the present study do not claim to be

objective but they are an interpretation made by the researcher. The interpretations made in the course of the present study are considered defensible, not right, nor corresponding to adoption of a brand strategy as an objective reality.

5.3 Suggestions for future research

The conclusion of abductive reasoning is a hypothesis. Peirce, an American philosopher and founder of the Pragmatic School of philosophy defines abduction as “an educated guess”, “intelligent conjecturing” or “the process of forming an explanatory hypothesis”. Since the context of the present study was relatively unfamiliar, plenty of new facts, ideas, questions and problems (“discoveries in Peirce’s language) were left for further examination. Yet, explanations in themselves do not constitute a theory but they can create and ground theories. The aim of abduction is to suggest an explanation (i.e. a hypothesis), and subsequent research may either accept or reject it. According to Peirce, abduction is a significant part of scientific reasoning since it is the only logical operation which introduces a new idea and in which knowledge is expanded. (Råholm 2010, 265).

The present study contributes and “provides discoveries” to branding theories by forming hypotheses and research questions on two main concepts. Firstly, a *context perspective* is approached. Hence, the present study contributes further to the branding theories in differentiating the impact of the new marketing phenomena on brand building. Secondly, the findings in this study provide a new understanding of a *brand management process, with special emphasis of the early stage, the adoption of a brand strategy*. The suggestions for the future research are:

1. How do context-related prior conditions have an effect on adoption of a brand strategy?
2. How do the managers become aware of a brand strategy in different marketing environments?
3. How to measure the potential connections between a manager’s prior conditions and the decision to adopt a brand strategy?
4. What are manager’s salient behavior patterns such as beliefs, opinions, attitudes, motivational factors in a brand strategy adoption process?
5. What is the role of a manager’s nationality in adopting a brand strategy?

To sum up, many important questions and issues are yet to be resolved. The above discussion will hopefully stimulate progress in specific research directions.

References

- Aaker, D. (1991). *Managing Brand Equity*. New York: The Free Press.
- Aaker, D. (2006). Innovation: Brand it or lose it. *California Management Review*. 50(1), 8 – 24.
- Aaker, D. & Joachimstahler, E. (2000). *Brand leadership*. New York: The Free Press.
- Abimbola, T. (2001). Branding as a competitive strategy for demand management in SMEs. *Journal of Research in Marketing & Entrepreneurship*. 3(2), 97-106.
- Abimbola, T. & Vallaster, C. (2007). Brand, organisational identity and reputation in SMEs: an overview. *Qualitative Market Research: An International Journal*. 10(4), 341-348.
- Alasuutari, P. (1993). *Laadullinen tutkimus*. Jyväskylä: Gummerus Oy.
- Armario, J., Ruiz, D. & Armario, E. (2008). Market orientation and internationalization in small and medium-sized enterprises. *Journal of Small Business and Management*. 46(4), 485-511.
- Berthon, P., Ewing, M. & Napoli, J. (2008). Brand management in small to medium-sized enterprises. *Journal of Small Business Management*. 46(1), 27-45.
- Brodie, R. & de Chernatony, L. (2009). Towards new conceptualizations of branding: theories of the middle range. *Marketing Theory*. 9(1), 95-100.
- Centeno, E., Hart, S. & Dinnie, K. (2013). The five phases of SME brand-building. *Journal of Brand Management*. 20(6), 445-457.
- Donckels, R. & Lambrecht, J. (1997). The network position of small businesses: An explanatory model. *Journal of Small Business Management*. 35(2), 13-25.
- Doyle, P. (2001). Building value-based branding strategies. *Journal of Strategic Marketing*. 9, 255-268
- Drury, J. & Williams, M. (2002). A framework for role-based specification and evaluation of awareness support in synchronous collaborative applications. *Infrastructure for Collaborative Enterprises: Eleventh IEEE International Workshop*.
- Dubois, A. & Gadde, L. E. (2002). Systematic combining: An abductive approach to case re-search. *Journal of Business Research*. 55(7), 553-560.

- European Commission (2005). *The new SME definition. User guide and model declaration*. Ref. 28.1.2014 http://ec.europa.eu/enterprise/policies/sme/files/sme_definition/sme_user_guide_en.pdf
- Eurostat Statistics in science and technology (2008). Trade in high tech products. Ref. 15.10.2014 http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-007/EN/KS-SF-08-007-EN.PDF
- Gibb, A. (1990). *Towards the building of entrepreneurial models of support for small business*. Durham University Business School.
- Gilmore, A., Carson, D. & Grant, K. (2001). SME marketing in practice. *Marketing Intelligence and Planning*. 1, 6-11.
- Gromark, J. & Melin, F. (2011). The underlying dimensions of brand orientation and its impact on financial performance. *Journal of Brand Management*. April, 394-410.
- Gronum, S., Verreyne, M-L. & Kastle, T. (2012). The role of networks in small and medium-sized enterprise innovation and firm performance. *Journal of Small Business Management*. 50(2), 257-282.
- Gundala, R. H. & Khawaja, H. (2014). Brand management in small and medium enterprise: Evidence from Dubai, UAE. *Global Journal of Business Research*. 8(1), 27-38
- Grønhaug, K. & Möller, K. (2005). High-Tech marketing: Fact or fiction. *The Finnish Journal of Business Economics*. 1, 91-104
- Hanlon D. & Saunders, C. (2007). Marshaling resources to form small new ventures: Toward a more holistic understanding of entrepreneurial support. *Entrepreneurship: Theory and Practice*. July, 619-641.
- Hills, G., Hultman, C. & Miles, M. (2008). The evolution and development of entrepreneurial marketing. *Journal of Small Business Management*. 46(1), 99-112.
- Hecker, D. (2005). High-technology employment: A NAICS-based update. *Monthly Labor Review*. July, 57-72.
- Kapferer, J-N. (1997). *Strategic brand management – Creating and sustaining brand equity long term*. London: Kogan Page.
- Keller, K. (1993). Conceptualizing, measuring and managing customer-based brand equity. *Journal of Marketing Management*. 57, 1-22.
- Keller, K. (2000). The brand report card. *Harvard Business Review*. 78(1), 147-157.
- Keller, K. (2008). *Strategic brand management – Building measuring and managing brand equity*. New Jersey: Pearson Education, Inc. Upper Saddle River: Prentice-Hall Inc.
- Keller, K. & Lehmann, D. (2006). Brands and branding: Research findings and future priorities. *Marketing Science*. 25(6), 740 -759.
- Kovács, G. & Spens, K. (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management*. 35(2), 132-144.
- Krake, F. (2005). Successful brand management in SMEs: a new theory and practical hints. *Journal of Product & Brand Management*. 14(4), 228-238.
- Litvak, I.A. (1992). Winning strategies for small technology-based companies. *Business Quarterly*. 57(3), 47-51.
- Locke, S. (2006). Information and communication technology adoption and small and medium-sized enterprise growth in New Zealand. *Journal of Small Business Management*. 44(2), 298-301.
- Love, J. Roper, S. & Du, J. (2009). Innovation, ownership and profitability. *International Journal of Industrial Organization*. 27, 424-434.
- Martin, J., Beth, A. & Minnillo, P. (2009). Implementing a market orientation in small manufacturing firms: From cognitive model to action. *Journal of Small Business Management*. 47(1), 92-115.
- Merikle, P. (1984). Toward a definition of awareness. *Bulleting of the Psychonomic Society*. 22(5), 449-450.
- Merrilees, B. (2007). A theory of brand-led SME new venture development. *Qualitative Market Research: An International Journal*. 10(4), 403-415.
- Meziou, F. (1991). Areas of strength and weakness in the adoption of the marketing concept by small manufacturing firms. *Journal of Small Business Management*. October, 72-78.
- Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*. Jan – Feb, 107-114.
- Mohr, J. (2001). *Marketing of high-technology products and innovations*. New Jersey: Prentice Hall.
- Molina-Morales, F. & Martínez-Fernández M. (2010). Social networks: Effects of social capital on firm innovation. *Journal of Small Business Management*. 48(2), 258-279.
- Moore, G. C. & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *The Institute of Management Sciences: Information Systems Research*. 2(3), 192-222.
- Mäläskä, M., Saraniemi, S. & Tähtinen, J. (2011). Network actors' in B2B SME branding. *Industrial Marketing Management*. 40(7), 1144- 1152.
- Möller, K. & Rajala, A. (1999). Organizing marketing in industrial high-tech firms: The role of internal marketing relationships. *Industrial Marketing Management*, 28(5), 521-535.
- Patton, M. (2002). *Qualitative research and evaluation methods*. 3rd edition. Thousand Oaks, CA: Sage.

- Rausch, L. (1998). High-Tech industries drive global economic activity. *Science Resources Studies, National Science Foundation*. Issue Brief NSF July 20, 98-391.
- Reijonen, R., Laukkanen, T., Komppula, R. & Tuominen, S. (2012). Are growing SMEs more market-oriented and brand-oriented? *Journal of Small Business Management*. 50(4), 699-716.
- Rogers, E. (2003). *Diffusion of innovations*. New York: The Free Press.
- Råholm, M-B. (2010). Abductive reasoning and the formation of scientific knowledge within nursing research. *Nursing Philosophy*. 11, 260-270
- Spence, M. & Essoussi, L. (2010). SME brand building and management: an exploratory study. *European Journal of Marketing*. 44(7/8), 1037-1054.
- Tekes (2008). Publications DM 32186 and 3605405-2008. Ref. 11.5.2010 <http://www.tekes.fi>
- Temporal, P. & Lee, K. C. (2001). *Hi-Tech hi-touch branding: Creating brand power in the age of technology*. Singapore: John Wiley & Sons (Asia) Pte Ltd.
- Tuomi J. & Sarajärvi A. (2009). *Laadullinen tutkimus ja sisällönanalyysi*. 6. Kustannusosakeyhtiö Tammi.
- Walker, O. & Mullins, J. (2008). *Marketing strategy: A decision-focused approach*. Singapore: McGraw Hill.
- Wan, F., Chattopadhyay, A. & Sun, D. (2013). Does branding matter to start-ups? Challenges and opportunities. In: Z. Sethna, R. Jones, & P. Harrigan (Eds.) *Entrepreneurial marketing: Global perspectives*. Bingley: Emerald.
- Ward, S., Light, L. & Goldstine, J. (1999). What high-tech managers need to know about brands. *Harvard Business Review*. 77, July-August, 85-95.
- Warren, L. & Hutchinson, W. (2000). Success factors for high-technology SMEs: A case study from Australia. *Journal of Small Business Management*. 38(3), 86-91.
- West III, G. P. & Noel, T. (2009). The impact of knowledge resources on new venture performance. *Journal of Small Business Management*. 47(1), 1-22.
- Wong, H.Y. & Merrilees, B. (2005). A brand orientation typology for SMEs: a case research approach. *The Journal of Product and Brand Management*. 14(2/3), 155-162.
- Wong, H.Y. & Merrilees, B. (2008). The performance benefits of being brand oriented. *Journal of Product and Brand Management*. 17, 372-383.

APPENDIX 1. Description of the selected companies

The origin of the company	Size	Industry	Customer base	Stage of the product
Finland	Start-up	IT, mobile app	b2b and b2c	Idea
Finland	Medium	Graphic	b2b	Product in the market, developing relationships and supply chain
USA	Medium	Physical therapy products, manufacturer	b2b	Product in the market, developing new features
USA	Small	Engineering, IT	b2b	Customized projects
USA	Start-up	Energy	b2b	Prototype
USA	Start-up	IT, Entertainment	b2b, b2c	Prototype
Finland	Medium	IT, Information management	b2b	Several products in market
Finland	Medium	IT, Well-being	b2b, b2c	Several products in market

APPENDIX 2. Discussion guide

I RESPONDENTS BACKGROUND

1. Nationality, native language, age
2. How long have you been in working life (in years)?
3. What is your current Job title?
 - How would you describe your current job?
 - How much and what kind of marketing activities include in your job at the moment? (evaluate in terms of percentages)
4. Describe your company,
 - the industry, when it was established, number of personnel
5. Would you describe how marketing is organized in your company?
 - Who makes the marketing decisions?
6. What kind of experience you have from previous jobs?
 - Have you previous experience in marketing?
7. What is your education?
8. How much and what type of education / training you have had in general (In school / in working life)?
 - on marketing? (In school / in working life?)
9. Have you lived / worked / studied abroad? Where and how long?

II EXPERIENCE QUESTIONS

1. Could you tell me about your experience of getting information from outside your company about marketing in High Tech environment? (Literature, articles, education, consultants etc.)
2. Could you tell me about your experience in formulating a marketing strategy in your company?
3. Could you tell me about your experience about managing marketing in your company?
 - a. Can you describe a typical day?
 - b. Based on your experience, what factors influence the most to company's success? Why?
4. How much resources you have for marketing – time, money, knowledge?
 - a. Where did these resources come from?
5. Could you tell me about your experience about branding?

III FEELING QUESTIONS

1. How do you feel when managing the marketing under uncertainty?
2. What did you feel when you discovered that you were not appropriately trained in marketing issues in High Tech?
3. How do you feel are the biggest challenges of marketing in your company?
 - a. Of branding in your company?
 - b. Challenges inside the company, outside the company?

IV KNOWLEDGE QUESTIONS

1. What information is available for branding in High Tech?
2. How did you cope with brand management?